

‘Dark’ side of the MOOC:

Shedding light on the construction, culture and consequences of an emerging social movement

Emily Longstaff

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Declaration

This thesis is my own original work, except where otherwise indicated and cited accordingly.

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Emily Longstaff

Acknowledgements

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Abstract

Massive Open Online Courses (‘MOOCs’) emerged on the global higher education scene in 2012. Champions of these largely free, video-based courses – offered by some of the most elite universities in the world – claim they can democratise higher education. Critics suggest that if MOOCs were to be a disruptive force in higher education, they would surely be its demise. Buried amid this pro- and anti-MOOC discourse is talk of a ‘MOOC movement’ that has gained and lost global popularity over time. The original contribution of this thesis is its illumination of the ‘dark’, previously unexamined aspects of the MOOC movement: its construction, culture and consequences. In adopting a social constructionist perspective and a mixed methods approach, the thesis demonstrates how the MOOC movement is constructed through the deliberate messaging of providers, and how meaning is negotiated and reconstructed by users at the individual, interpersonal and broader social level. It also provides an explanation of what impacts different constructions and degrees of affiliation with the MOOC movement have on the culture and consequences of MOOCs more broadly, and vice versa.

Data from focus groups and an online survey suggest that, far from just media spin, there are users who believe in and identify with the MOOC movement. The identifiers tend to perceive MOOCs as a learning community, while the non-identifiers regard them as a learning tool. User attitudes and experiences also suggest that by and large, the MOOC movement is achieving the goals set by providers to increase access to the ‘world’s best’ higher education and promote anywhere, anytime learning, though perhaps more in terms of convenience than as a means to overcome geographical constraint. These predominantly free and unaccredited courses have also been shown to have high value among users, encourage peer support, and display strong potential for application in non-education settings.

However, not all MOOC successes are entirely clear-cut. The issue around empowering and connecting users – two other provider goals that are highly correlated – is that the culture of MOOC forums, assessed through participant observation, can be incredibly divisive. What's more, despite attracting many thousands of enrolments per course, few users actually engage with the discussion forums. From this perspective, MOOCs (or at least their forums) are neither massive nor open; they're relatively small and exclusive. This is important for university administrators and higher education policymakers to understand. MOOCs cannot simply be viewed as the key to access and funding woes. For some users, MOOCs are representative of a life-changing movement towards personal growth and greater access to higher education. For others, they are hubs for cyberbullies and trolls, or they have little significance at all. Just as a review of history shows that the MOOC movement does not represent a wholesale revolution in higher education delivery, it is not a panacea for the ailments of contemporary universities, or even a complete assessment of the MOOC phenomenon. Nonetheless, by virtue of the beliefs and behaviours of those who do claim affiliation, it is a real movement with real consequences.

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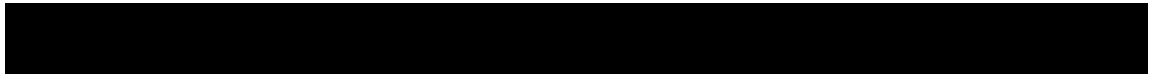
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List of acronyms

ANU	Australian National University
APOLLO	ANU Polling Online
HREC	Human Research Ethics Committee
ICT	Information and Communications Technology
ISCED	International Standard Classification of Education
MIT	Massachusetts Institute of Technology
MOOC	Massive Open Online Course
OCW	OpenCourseWare
OER	Open Educational Resources
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States



1. Introduction

Since 2012, the higher education community has been threatened by both an ‘avalanche’ and a ‘tsunami’ (Barber, Donnelly & Rizvi, 2013; Brooks, 2012; Lombardi, 2013). This is at least the impression to be gained from the online commentary surrounding the latest ‘craze’ in higher education: the Massive Open Online Course, otherwise known as the ‘MOOC’.

THE EMERGENCE AND EVOLUTION OF MOOCS

Imagine taking courses, taught by professors at some of the most prestigious and well-known universities in the world, from the comfort of your own home, without paying any more than the cost of your internet connection. With an ever-expanding sum of users from across the globe able to enrol in any number and combination of such courses, the need to ‘go’ to university and pay money, sometimes a substantial amount, to obtain a degree becomes obsolete, no?

Such was the premise of the fervour of online commentary surrounding MOOCs when they rose to international prominence in 2012. The thought was that, because the MOOC model was being championed by elite universities – considered the most stable and hesitant to change – higher education was to be disrupted to its very core, never to be the same again (Harden, 2013; Hyman, 2012; Karabell, 2013; Marklein, 2012). In July 2013, *The Economist* (2013) declared:

[A year] since the launch [of] Massive Open Online Courses, the ivory towers of academia have been shaken to their foundations. University brands built in some cases over centuries have been forced to contemplate the possibility that information technology will rapidly make their existing business model obsolete.

In facing this threat of drastic disturbance, many universities were said to have ‘felt obliged to join the MOOC revolution to avoid being guillotined by it’ (The Economist,

2013); 'to get in on the ground floor or else be left in the dust as some old-out-of-touch, brick-and-mortar has-been' (Douglas, 2013); 'to master the new technology before it master[ered] them' (Waldrop, 2013). From the perspective of long-term online education enthusiasts, this speedy proliferation of elite-driven MOOCs was essentially a sign that big-name universities wanted to claw, or muscle, their way into the online education space. This was an area previously the domain of less prestigious, more pedagogically-experimental institutions; an area which elite universities have been thought to view 'as higher education's redheaded stepchild – good enough for for-profit institutions and state universities, maybe, but hardly equivalent to the classes held on their own campuses' (Kolowich, 2013b).

Such co-option has extended well into the concept of the MOOC itself. Though since 2012, the term 'MOOC' has conjured up notions of exclusive – especially United States (US)-based – universities offering free online courses, the term 'MOOC' originated with educators in Canada several years before. Credited to David Cormier from the University of Prince Edward Island, the term 'MOOC' was first applied in 2008 to an online course taught at the University of Manitoba, facilitated by George Siemens and his colleague, Stephen Downes (Brown, 2013; Little, 2013; Siemens, 2012). Distinguished from the later open online course providers established by academics from Stanford, MIT and Harvard – whose courses have been termed 'xMOOCs' – these first MOOCs have been given the title of 'cMOOCs' to indicate their association with 'connectivist' pedagogy: 'a learning theory for the digital age' in which the production of knowledge is regarded as an interactive and iterative process grounded in digitally-situated social networks (Atenas, 2015; Longstaff, 2015; Siemens, 2005). The xMOOCs, by contrast, have been considered to have an instructional technique similar to more traditional university courses, whereby knowledge is not created by a community of learners but is instead passed on to learners by subject-matter experts. The 'x' has been taken to mean that such courses are effectively an 'extension' of university courses, according to the definition of Rhoads, Camacho, Toven-Lindsey and Lozano (2015).

Throughout this thesis, all references to MOOCs are made with xMOOCs in mind. These are the types of courses that made the term MOOC famous by giving it a place on the world stage. Moreover, despite being the namesake of MOOC, the first connectivist iterations – which were comprised of a couple of thousand participants per course (Daniel, 2012; Siemens, 2013:6) – had not really been 'massive' on anywhere near the scale of xMOOCs, which have been known to attract tens to hundreds of

thousands of enrollees at any given time. These latter MOOCs thus provide the foundation of the popular definition of MOOCs, characterised as:

Online courses where lectures are typically “canned”, quizzes and testing are automated, and student participating is voluntary. They attain large scale by reducing instructor contact with individual students; students often rely on self-organised study and discussion groups (EDUCAUSE, 2012).

Despite some changes since they gained international popularity in 2012, as a general rule, there are five distinguishing characteristics of MOOCs: (1) participation is only limited to those with an internet connection and an email address for registration; (2) course content is available for free, though now some courses charge a nominal fee for identify-verified certificates of completion; (3) courses generally do not attract formal academic credit; (4) courses are ‘modular’ in the sense that there is no requirement to undertake a particular program or ‘sequence’ of study; and (5) some non-technical courses also require peer grading in order to provide ways to assess users at scale.

The ‘Big Three’

Most discussions of MOOCs tend to focus on the ‘Big Three’ providers that propelled the term into (somewhat) common parlance: Udacity, Coursera and edX.¹ These are the providers that have had huge amounts of money invested in them and carry the weight of big-name universities and their ‘star’ professors (Young, 2013b:8).

Udacity was the first of these three to appear on the scene, launched in February 2012 by Stanford Computer Science Professor Sebastian Thrun as a for-profit start-up venture into open course delivery. It was initially financed by US\$15 million from Charles Rivers Ventures along with US\$200,000 of Thrun’s own funds (Carey, 2015; Chafkin, 2013). In a lecture at the 2012 Digital-Life-Design Conference in Munich, Thrun (2012) spoke of how the idea for Udacity, and leaving traditional university education behind, first came about. It was in April 2011 when he tried putting his introductory artificial intelligence course online; a course he normally delivered in person to 200 students at Stanford’s campus. Back then, he emailed an open invitation to students at the university to take his online course, saying that they could receive the same content, be taught by the same lecturer, and do the same homework assignments and exams as the students taking his class on campus. They were also told that, if they completed the course, they could get a certificate, although they would not get official

¹ While there are some other online education providers associated with the ‘MOOC’ name, there is a distinction to be made between MOOCs and other online education ventures, such as Khan Academy, which are not affiliated with universities or big-name companies.

course credit. Within days, 160,000 people had signed up to the online course from 190 countries around the world, and soon, the number of on-campus students dropped to about 30. By the end of the course, 23,000 participants gained certificates of completion. With thousands of volunteer student-translators, and an army of teaching assistants, Thrun (2012) had, as he described it, set the trend for 'an entire counter-culture' in higher education. Having felt like he had 'taken the red pill' and 'seen wonderland', he saw it his mission to step down from his post at Stanford to 'really change the world with education' (Thrun, 2012). Thus, within a few months, Udacity was born. By August 2013, it had one-and-a-half million registered users (Shumski, 2013). For Thrun, numbers like this showed that Udacity was a pioneer of the MOOC movement; 'a movement that can't be stopped' (Gannes, 2012). However, by October 2013, as a shock to many, Thrun had started to distance himself from the ideal of free education that Udacity had espoused through its MOOCs. 'We don't educate people as others wished, or as I wished. We have a lousy product', he said, referring to the fact that relatively few people had actually completed MOOCs compared with the number that had enrolled in them (Chafkin, 2013; Schuman, 2013a). Soon after, Udacity underwent a 'pivot', devoting more of its dime and time to getting users to pay to undertake 'nanodegrees'; short, certified degree programs made up of Udacity's industry-oriented courses. This provided a way to bypass more traditional means of higher education but still give users the impetus (in terms of financial input and tangible outcome) to participate in, and complete, not just one but multiple courses. While Udacity's original MOOCs were its 'first attempt to democratise education', it was proposed that by getting users to pay for a 'service layer', Udacity could 'drastically boost [the] learning outcomes' of its users (DeAmicis, 2014). And so, it developed a new user-pays model whereby those who have been willing and able to afford it have had access to mentoring services and the opportunity to gain a qualification for their efforts. Despite these changes in operations, Thrun continued to stress that all of Udacity's course materials would remain 'available for free' for any users who 'can't afford' or choose not to pursue certification (DeAmicis, 2014). And it seems as though the vast majority of users have seen value in the courseware-only option. By April 2016, Udacity's enrolment tally stood at four million users, around 11,000 of which were identified as paying users (Mitra, 2016).

Fellow for-profit MOOC enterprise, Coursera, was launched in April 2012, once again by professors from Stanford's Department of Computer Science. The two in charge: Daphne Koller and Andrew Ng, backed by an initial US\$16 million in venture

capital (Lawton and Katsomitros, 2012; Ripley, 2012). In just over a year after its emergence, Coursera had attracted almost four million users globally (Dodd, 2013). This rapid growth in participation was the key propellant of Coursera's dominance in the online education scene. 'We had a million users faster than Facebook, faster than Instagram', said Koller, claiming that, like Udacity, what Coursera was doing was part of 'a wholesale change in the educational ecosystem' (Cadwalladr, 2012). While in May 2014, Andrew Ng announced that he was taking a step back from his daily duties at Coursera, he was still eager to stay on as Chairman of the Board. This enabled him to maintain close ties with the organisation that he regarded as a leader in 'the MOOC movement'; a movement which he described in 2014 as not only 'healthy', but 'growing' (EdSurge, 2014). Indeed, by 12 February 2016, Coursera's website boasted of the company having gained 138 partners, produced 1,798 courses and amassed more than 17.5 million users. Despite these huge numbers, and initial claims that 'charging for content would be a tragedy', by early 2016 Coursera had started adopting the 'freemium' model its founders had predicted would always come (Straumsheim, 2016; Waldrop, 2013). Access to basic course content has still been provided to all for free, but opportunities to access and complete assignments and certificates has, in some cases, required a fee.

In comparison to the larger Coursera, edX has been dubbed 'a small MOOC provider with powerful parents' (Wilson and Gruz, 2014:36). The seed of edX was planted in December 2011, when a professor of electrical engineering at the Massachusetts Institute of Technology (MIT) by the name of Anant Agarwal, launched an online portal called MITx as a means to distribute his course on circuits and electronics, online and to the masses. Soon after, new shoots had sprouted, with fellow university heavyweight, Harvard, combining forces with MIT. Each university invested US\$30 million to create a joint online venture for hosting freely-accessible online university-level courses, based on the MITx model. With funds 'twice the annual budget of the typical four-year college in the United States', this type of financial backing did well to imply that 'these wealthy, respected universities had discovered the magic bullet solution to the future of higher education' (Selingo, 2013:90). In other words, that they had found a way of increasing access in the face of increasing fiscal austerity. By May 2012, edX was in full bloom, operating as a not-for-profit research venture with the purpose of extending institutional reach while simultaneously analysing online teaching and research methods to help improve the experience of studying, both on and off campus (Finkle and Masters, 2014; Heller, 2013). Over time,

edX sought to make its software open-source. This was to help expand the uses of its technological innovations and provide greater access to higher education throughout the globe (Fitzgerald, 2013; Winkler, 2013). The fruit of this expansion has been evident, as by February 2016, edX's website could lay claim to having gained 90 partners, with five million learners to boot. Like Coursera and Udacity, edX has been 'part of a movement [seeking] to change the face of education', Agarwal (2013) explained. And like Coursera and Udacity, by early 2016, edX had also proposed that it would begin offering some courses with credit, for a fee (Bhattacharyya, 2016).

The creators of MOOCs affiliated with each of these 'Big Three' providers have varied widely. There have been the elite American universities, such as Yale, Princeton and Johns Hopkins, and the MOOC-founding universities of Stanford, MIT and Harvard. There have also been world-renowned technology and media companies like Google and Facebook. Universities from around the world, hailing from countries as far apart as Australia and Denmark to Singapore and Mexico, have likewise embraced the idea of MOOCs and have signed on to create their own. The World Bank has made one, too. Course subjects have operated at a similar level of diversity, ranging from quantitative approaches to bioelectricity, to literature and narrative in online games.² Praise and interest for MOOCs has likewise been far-reaching, with attention not only garnered across universities internationally, but also from tech-savvy philanthropists like Microsoft founder Bill Gates, who has provided millions of dollars for research grants to investigate the potential benefits and applications of MOOCs (Coughlan, 2012; Grossman, 2013b). These online courses have even caught the eye of the White House, with President Obama citing MOOCs as a key resource for a world where the demand for accessible and affordable education is ever increasing (Kelly, 2014:2; Open Courseware Consortium, 2013).

All of this attention on MOOCs suggests that they are kind of a big deal. And to their proponents, they certainly have been. Those devoutly in favour of MOOCs have proclaimed that 'the advantages of MOOCs – these free and online courses taught by some of the best experts in their fields – [have been] undeniable. They [have driven] the cost of a world-class education down to nothing. They [have made] knowledge accessible to all' (Brown, 2013). Not surprisingly, claims of increased access to premium

² Although all providers have had universities involved in their operations, Coursera and edX are the ones primarily affiliated with universities, each offering a range of courses in science and technology, as well as the social sciences and humanities. Udacity's courses have been predominantly in the fields of computer science and mathematics, with the organisation more closely affiliated with industry.

higher education have been championed by the MOOC providers, too. Official statements of this nature have tended to be accompanied by user anecdotes, such as the following:

I'm completing the course from remote areas of Afghanistan, and often don't have great internet connectivity. Or electricity. Or internet connections that don't block out YouTube. I spent the last few days under incoming mortar and rocket attacks, then dodging checkpoints under questionable legal status to exfiltrate a war zone to a third world air field until things settle[d] down. I had about an hour of fairly solid internet connectivity to be able to get the assignments done, and still managed a respectable score. This is a typical week here for me. You're providing a course such that even someone under my exceptional circumstances is able to participate successful. Great job, and thank you again!

This is an excerpt of an email sent to Udacity by one of its appreciative users, read aloud by Sebastian Thrun (2012) to the audience at his 'University 2.0' lecture at the 2012 Digital Life Design Conference. Other instances where MOOCs have been 'opening the ivory tower to the world', as Parry (2012) describes it, have been similarly promoted by edX. One anecdote receiving a lot of traction featured a 15-year-old 'wunderkind' from Mongolia who achieved a perfect score in MIT's first MOOC, *Circuits & Electronics*, and later went on to study at MIT and get a job working for the edX platform. Coursera's Daphne Koller has similarly espoused the ability for her own company's MOOCs to reach people in the far corners of the world, but also their capacity to improve the lives of those closer to home. In relaying one particular learner success story, she described a US resident called Jerry Vickers who, despite being diagnosed with motor neurone disease, has been able to take Coursera courses with the aid of a tablet device and eye-tracking camera (Koller, 2016). These stories, and all others like them, are what established the basis of the pro-MOOC rhetoric. Such tales have been deliberately designed to uplift and inspire prospective users (and indeed, course creators) to get involved in the global 'democratisation' of high-quality online higher education.

And get involved they have. Users from India have been some of the most prominent and eager participants, viewing the completion of MOOCs as a way to become competitive in the job market and in applications to study at universities overseas (Phadnis, 2013; Priyadarshini, 2013). There have also been MOOC projects in Africa, including Rwanda (Kim, 2014), Tanzania (Krasny, 2015; Sperber, 2013), and even at a refugee camp at the Kenya-Somalia border (Kolowich, 2014b), 2014). Other projects have been established in Saudi Arabia (Al Omran, 2013; edX, 2013c) and Jordan (Sharnoff, 2014). Over in China, where 'educational demand radically outstrips supply', prospective learners have been signing up to MOOCs in droves (Reich, 2015).

On the back of such popularity, there have also been MOOC ventures established in the United Kingdom (Katsomitros, 2013), Brazil (Else, 2014), Japan (Grossman, 2013a), Vietnam (Pham, 2013) and Australia (Counihan, 2013). In reflecting on this global reach, the MOOC advocate's point of view in early 2013 may be summarised by the following quote:

Nothing has more potential to lift more people out of poverty – by providing them an affordable education to get a job or improve the job they have. Nothing has more potential to unlock a billion more brains to solve the world's biggest problems. And nothing has more potential to enable us to reimagine higher education than the Massive Open Online Course (Friedman, 2013).

By August 2013, the frenzy surrounding 'MOOC mania' had carried it all the way into the Oxford English Dictionary (Devlin, 2013; Goldberg, 2013; Haggard, 2013; Hammonds, 2013; Parr, 2013; Straumsheim, 2014; Watters, 2013a; White, 2014). The term 'MOOC' has now been officially defined there, albeit somewhat vaguely, as 'a course of study made available over the internet without charge to a very large number of people' (Oxford University Press, 2015). Somewhat counter-intuitively, as well as being the year that MOOCs gained official recognition, 2013 was also when the shine of 'the year of the MOOC' – as Pappano (2012) had unabashedly claimed 2012 to be – began to fade. So much so, it was eventually dubbed 'the year of the MOOC backlash' (Kolowich, 2014a; Stokes and Gallagher, 2013). 'It is not surprising that a model this transformative brings out sceptics and critics', Daphne Koller maintained (Jaschik, 2013). But the transformative aspect is precisely what so many have opposed. As Tapson (2013) wrote, 'twelve months ago, the traditional universities were doomed, condemned to irrelevance by an onslaught of MOOCs...One year later, it seems that, like Mark Twain's, reports of these deaths are greatly exaggerated.'

Herein lies the voice of the MOOC sceptics: those who have opposed the idea that MOOCs will disrupt or 'flatten' access to higher education, believing instead that they have presented nothing more than a fad with little lasting impact. In citing demographic and completion data from MOOCs run by Harvard, MIT and Princeton (Christensen et al, 2013; Ho et al, 2015; Ho et al, 2014), the sceptics have argued that MOOCs have mainly attracted well-educated males living in developed countries, rather than the world's poorest and most educationally-deprived people who would benefit most from free education experiences. Additionally, despite large enrolment numbers, sceptics have argued that few participants, sometimes under 10%, have actually completed the courses they enrolled in (Fowler, 2013a; 2013b; Selingo, 2014). In

defence of such claims, Coursera's Daphne Koller has said that it is meaningless to compare completion rates in MOOCs to those in degree-based university courses, as the intent of learners is different. In MOOCs, she contends, 'most students [have just been] exploring' and so have never intended to finish a course (Landry, 2013). As such, they, and the courses they enrol in, should not be viewed as failing in this respect. Koller has also contested the idea that participation in MOOCs should be regarded as inferior to university-based higher education. She has said that MOOCs should instead be viewed as a way to gain 'some' kind of education instead of having 'no education at all' (Rivard, 2013b). For critics, such claims have indicated that MOOC providers have been promoting a two-class higher education system, one where 'free is actually very elitist' because it is all that the less wealthy of the world may be able to afford (Craig, 2012; Lohr, 2013; Morton, 2013). The prospect of MOOCs improving access to higher education has been further debated by those emphasising the implicit pre-requisites for effective participation: reliable broadband internet connection, computer literacy and language proficiency, all of which many of the world's poorest have lacked due to a paucity of resources and limited access to basic education (Farmer, 2013; Mitchell, 2013; Sharma, 2013; Young, 2013a).

Educators opposed to MOOCs have disputed the very notion that they are a beneficial higher education medium, for learners or academics. They have warned that the heart of higher education 'lies in the subtle interplay between students and teachers that cannot be simulated by machines, no matter how sophisticated the programming' (Carr, 2012). Essentially, the argument has been that the MOOC model 'doesn't create a learning community; it creates a crowd' (Guthrie, 2012). Critics have gone on to express fear and anger as to what control, especially with regards to intellectual property and career longevity, instructors of MOOCs may forfeit by trying to 'stay current' with this global higher education phenomenon. Particular concerns have been raised about the prospect of course content becoming automated and recycled over time. Such a development could remove the requirement for the original academic's input with future iterations of each MOOC. It could also result in the teaching of MOOCs being restricted to only the 'superstar' professors deemed worthy of the international spotlight (Kolowich, 2013a; London, 2014; Neal, 2013; Parry, 2013a; Schuman, 2013b; Werbach, 2013; Yakabuski, 2013).

Another issue of concern has been academic credit. From the outset, the option of charging people to be eligible to obtain credit, and subsequent qualifications, through

MOOCs has generated tentative optimism and staunch cynicism. The partial adoption of 'credit-for-a-fee' has been viewed, in some respects, as a sign that MOOCs have increased in extrinsic value, and that they have become a relevant alternative or precursor to standard university education (Daly, 2013; Young, 2015). Alternatively, it has been proposed that, in offering credit for a fee, the very essence of what makes an online course a 'MOOC' has started to dissolve (Straumsheim, 2016; Watters, 2013c). Further criticism for the fee-for-credit model has come after it was revealed that, since its adoption, relatively few people have taken up the opportunity to receive credit or remain engaged in MOOCs long enough to be eligible to do so (Straumsheim, 2015a).

By December 2013, amidst such negative coverage, one online MOOC commentator posed the simple question: 'Are MOOCs already over?' (Strauss, 2013). To many, the answer was clear as early as 2014: 'they came; they conquered very little; and now they face substantially diminished prospects' (Zemsky, 2014:237). With all of the criticisms cropping up, many were sure that 'MOOC fever [was] cooling' (Koenig, 2014); that 'MOOCs have had their day' (Ross, 2014); and that they were as good as 'dead' (Borden, 2014). People, in the media especially, were essentially 'MOOC'd out' (Yang, 2013). Not because of any controversy surrounding them – as in the case of Udacity ceasing to provide 'non-identity-verified certificates' without charge (Thrun, 2014), or edX dismissing one of its MOOC instructors for sexual harassment (Jaschik, 2014a; Straumsheim, 2015b) and being sued for not providing closed-captioning for the hearing impaired (2015) – but because many people had come to believe that 'MOOCs are not a magic bullet for all that ails higher education' (Sandeep, 2013).

True, MOOCs have not taken over the world. Nor have they disrupted the foundations of higher education. But, they have not gone away either. Despite concerns around cheating (Ho, 2015), the long-term financial viability of the MOOC model (Goldberg, 2013; Weller, 2015), the introduction of fees and credit for some courses, and criticism of low completion rates, MOOCs have retained momentum. According to Wexler (2015), the number of registered MOOC users in 2015 alone, a year after MOOCs were supposedly on their death bed, had equalled the number of enrolments for previous three years combined.

Even if completion rates or certificates earned in some past and future MOOCs only amount to a single digit percentage, this still equates to a substantial number of people (Zhenghao et al, 2015). And even if criticisms continue to mount, with millions of users amassed worldwide, MOOCs still remain a significant social and educational

phenomenon worthy of in-depth analysis. The purpose of this thesis is to present such an analysis, uncovering aspects of MOOC participation and experience previously unexplored.

RESEARCH PROBLEMS

The main focus of this thesis stems from the fact that, throughout the discourse surrounding MOOCs since their emergence, the concept of the ‘MOOC movement’ has been widely adopted though rarely critically examined or explained (Aguaded-Gómez, 2013; Altbach, 2014; Daniel, 2012; Hyman, 2012; Irvine, Code and Richards, 2013; Johnson and Becker, 2014; Rhoads et al, 2015; Sonwalkar, 2013; Watters, 2013b; Wu, 2013). True, commentators outside of sociology or politics may have used the term ‘movement’ without realising its connotation. However, even Mitchell Duneier, a sociology professor from Princeton University – who had himself taught an introductory sociology MOOC to millions of people around the world – has described the MOOC phenomenon as a ‘movement’. Duneier claimed his defection from the movement was because he did not believe in licencing his MOOCs to other universities: ‘I’ve said no, because I think that it’s an excuse for state legislatures to cut funding to state universities, and I guess that I’m really uncomfortable being part of a movement that’s going to get its revenue in that way’ (Parry, 2013). One may assume that a sociologist like Duneier would not have used the term ‘movement’ as lightly as other commentators. Nonetheless, this idea of a MOOC movement has largely been taken as given. It has simply been used as a matter-of-fact phrase to describe an educational phenomenon that has gained, and lost, international appeal.

The self-proclaimed ‘critical humanist’ Robert A. Rhoads (2015:6) is one sociologist who has sought to justify defining the MOOC phenomenon as a social movement, saying:

I see MOOCs as constituting a social movement on the basis that multiple social actors and organisations have aligned their actions to such an extent that the phenomenon takes on the classic characteristics of a loosely coordinated activity with common lines of action and similar definitions of the situation (Blumer, 1990). As a complex and loosely coupled assemblage, the MOOC movement evidences a variety of tensions and uncertainties, including little agreement about where the movement may actually be heading. The tensions and uncertainties present a major challenge to analysing the MOOC movement at a particular point in its history and necessitate great clarity in advancing a meaningful argument.

Importantly, Rhoads' examination stops short of seeking out and assessing explicit claims of user affiliation to the 'MOOC movement'. What is put forward instead is an overview of the commentary around the hopes of 'MOOC advocates' and the gripes of 'MOOC sceptics', but nothing from the MOOC users themselves. Such is the primary value of this thesis: its interrogation of the concept of the MOOC movement from both organisational and individual perspectives. It presents an assessment of how the 'MOOC movement' has been constructed by providers in terms of the ways in which common goals have been framed. It also examines how users have interpreted these framing efforts, then reconstructed the prospect of the 'MOOC movement', and their affiliation with it, for themselves. This kind of multi-level analysis is deemed – according to the social constructionist, mixed-methods approach on which this thesis is based – integral to providing a holistic understanding of what constitutes a social movement and makes it legitimate in the eyes of those involved. Furthermore, it helps explain why some people may choose to align themselves with a particular movement and encourage the involvement of others, and why some people do not.

As far as determining whether or not the MOOC phenomenon actually constitutes a social movement, this thesis operates on the constructionist assumption that it is the user-definitions of the 'MOOC movement' that afford the foremost legitimisation for such a characterisation. With that in mind, and for full comprehension of the remainder of this thesis, it is important to recognise one of the key findings to come out of this study (even if these findings are yet to be presented): that many users assessed in this study have been shown to believe in and identify with the 'MOOC movement'. Because of this finding, the use of the term 'MOOC movement' throughout this thesis is justified. Although the existence of the MOOC movement was not taken as given from the outset of the research process, its existence in the eyes of some users is acknowledged here at the beginning of this thesis (and in the title). This is simply because it is impossible to disregard the study's findings when compiling a content overview, especially as the entire thesis was written or revised after data were collected and reflected upon. However, it is made clear in later chapters that not all users identified with such a concept. The precise reasons behind these differing levels of belief in, and attachment to, the MOOC movement are a central focus of this study. They establish the foundation for assessing the merits of the depiction of the MOOC phenomenon as a social movement, and represent the first knowledge contribution of this thesis beyond existing commentary.

A second way this thesis adds value to the commentary around MOOCs is in the prominence given to the users; not just in their construction of the MOOC movement but also the culture they develop within the movement. In both cases, emphasis here is on the actions and words of the users themselves. Such a user-centric perspective has been distinctly absent from the majority of commentary around MOOCs thus far, which has mainly focussed on issues such as pedagogical effectiveness, completion rates, and the future of university campuses and academic careers (Bady, 2013; Bali, 2014; Ebben and Murphy, 2014; Jaschik, 2014b; Jona and Naidu, 2014; Liyanagunawardena, Adams and Williams, 2013; Morris and Stommel, 2013; Reich, 2014). One exception comes from Veletsianos and his colleagues (2013; 2015), whose research on learner experiences seeks to understand what it is like to participate in a MOOC and how users perceive open education generally. However, their research shows no desire to examine user constructions of the ‘MOOC movement’, or discuss how movement goals relate to user culture. As Rhoads (2015) further demonstrates, even in discussions that explicitly address the idea of the ‘MOOC movement’, users’ views and behaviours do not receive much attention. Though Rhoads does discuss users as one of the key players comprising the MOOC movement, he does not specifically assess them as constructors of the movement. Rather, he offers a largely functionalist view of social movements, looking at the organisational elements, that is, the roles of the different players in the movement – which he classifies as MOOC users, course producers, MOOC providers, MOOC legitimisers, funders, networks and associations – and how they fit together. In adopting the analytical framework proposed by Taylor and Whittier (1995), this thesis instead places user views and culture at the forefront of analysis. This allows for a systematic approach to gauging how the ‘lived’ construction of the MOOC movement by users compares with the ‘official’ construction developed by providers. This focus on both users *and* providers is incredibly important, as Klandermans (1997:3) outlines:

Social movements are composed of individuals, although a social movement is more than an assembly of individuals. While the study of social movements cannot be limited to the study of movement participants, the individual level of analysis is by no means irrelevant...the very fact that these individuals *are* acting together needs to be explained not taken for granted. Focusing on the individual, we can observe that the individuals within a movement often disagree about a course of action; that each individual can have very different motives for participation; that individual participants contribute to the collective enterprise in different ways and that this concerted energy may be more than the sum of its individual parts. In other words, we must conclude that social movements are far from unitary phenomena. Moreover, only at this individual level of analysis can we explain why some people participate in social movements whereas others, apparently in the same situation, do not.

In providing analysis at multiple levels, this thesis thus helps fill a gap in the discourse surrounding the MOOC movement. It demonstrates how well user constructs and culture align with the intended goals of providers, and why some users feel part of a broader movement while others do not.

The third value-add of this thesis is in its assessment of impact. Discussions around MOOCs prior to this study have emphasised the potential disruption or complete devastation that MOOCs may unleash in the future. However, these discussions have been largely speculative. They have also been removed from the context of the MOOC experience. There has been a lot of talk about what *may* happen (particularly to universities) in the future, but far less emphasis on what *is* happening (particularly to learners) already taking MOOCs. This thesis develops new knowledge in this area by examining both the intended and unintended consequences surrounding MOOCs and the notion of the MOOC movement; the former being the common goals of providers as expressed in the mission statements on their official websites, the latter being any perceptions, attitudes or behaviours beyond these goals. While intended consequences have generally been the focus of assessments of movement success, and indeed, considered central to the very characterisation of a social movement, unintended consequences have become a growing area of social movement research. This thesis highlights the broader impacts social movements can have on participants and organisational objectives, and how certain behavioural or attitudinal outcomes may actually work to undermine these intended goals. Inevitably, the two ends of the spectrum are intrinsically linked. As such, it is only by first tracing the intended consequences of the MOOC movement through the identification of common provider goals that the unintended consequences can become evident. Guided by Boudon's (1982) notion of 'perverse effects', and the initiative of certain social movement theorists, like Giugni (1998; 1999; 2008), to look beyond explicit objectives, this thesis directs attention to both the positive and the negative unintended consequences of the MOOC movement.

A fourth key point of value of this thesis is its sociological interpretation of MOOCs. As an online educational phenomenon, analysis of MOOCs to date has largely been from educational theorists. In offering a social constructionist view of both the ideas and experiences of MOOC users, and the prospect of the MOOC movement, it is hoped that the general understanding of what MOOCs are, what their proponents have been trying to achieve, and the factors promoting or impeding their success, may enlighten education and social movement theorists alike. By adopting a distinctly sociological mindset, educationists can be better placed to identify patterns and

justifications for certain behaviours in MOOCs. Conversely, social theorists can gain a new perspective on the construction of collective identity and the constitution of social movements more generally.

The issue of whether or not the MOOC phenomenon constitutes a movement in the eyes of users, and one that they identify with, is important. Having users believe in, and claim affiliation with, the MOOC movement shows that there are people who see themselves as part of a collective; a collective invested in the idea and future of MOOCs beyond individual courses, for obtaining information, for individual purposes. It also suggests that some people see MOOCs as a way to instigate social change, to transform the delivery and accessibility of higher education for the greater good, and to encourage others to get involved. The presence of users who do not believe in or identify with the MOOC movement suggest that there are people who have little emotional attachment to MOOCs at all, and who have little investment in their longevity. The more users there are who express such anti-movement views, the more likely it is that MOOCs will live up to the sceptics description of them as being nothing more than an educational resource that will likely be forgotten as soon as the next technological ‘craze’ comes along.

RESEARCH QUESTIONS

The purpose of this thesis is to shine a sociological light on the ‘dark’ side of MOOCs, that is, the previously unexamined areas around the MOOC movement’s construction, culture and consequences. The key research questions guiding the analysis are: (1) do users actually believe in and identify with the idea of the ‘MOOC movement’, and if so, to what extent and for what reasons?; and (2) are there any unintended consequences pertaining to user perceptions, attitudes and behaviours that are inhibiting the success of the MOOC movement (according to the goals of providers)? These questions are designed to probe the idea of the MOOC phenomenon as a social movement and the interpretations and experiences of MOOC users as participants of this movement. In adopting a social constructionist perspective, this thesis posits an easily assessable comparison between the constructions of the movement at both the organisational and individual level. The point of contrast is the official – that is, explicitly stated – goals of the ‘Big Three’ MOOC providers, and the lived experiences of MOOC users. How well users’ constructions of the MOOC movement, and their behaviour and experiences in MOOCs more broadly, align with the stated aims of providers (taken as the intended

consequences of the MOOC movement) is a chief area of concern. This allows any unintended consequences to be identified where the interpretive frameworks of users and providers do not align.

In conducting such a holistic examination, this thesis presents a new avenue for discussion around the conceptualisation of the MOOC movement. Though it may not be a conventional approach to the analysis of social movements, given that the movement status of the research topic is itself in question, the thesis provides an innovative perspective for analysing what may be termed differing perceptions of, and attachments to, an 'emerging' movement. In particular, this thesis imbues readers with a greater understanding of why and how conceptualisations of the MOOC movement differ, as well as what impacts different constructions and levels of identification with the MOOC movement have on the culture and consequences of MOOCs more broadly, and vice versa. It highlights the importance of analysing social movement constitution and affiliation from the ground-up, focusing on users' own words rather than solely on the labelling efforts of outsiders. Moreover, by comparing explicit goals and other impacts, the thesis adds to the growing body of literature on the unintended consequences of social movements more generally. It also provides food for thought for both politicians and university administrators, showing that discussions about MOOCs need to shift beyond the notion that they are a marketing tool, a way to broaden participation in higher education, or a way for universities to lower costs by reallocating funds currently dedicated to campus real estate and amenities. According to the data presented in this thesis, for many, MOOCs have much greater meaning. For others, they have little significance at all.

As a topical and fast-evolving issue, MOOCs present a moving research target. This is a clause that several authors, such as Rhoads (2015), Bali (2014) and Lakshminarayanan (2012), have been keen to stress. In spite of the challenges posed, by identifying and scrutinising the construction, culture and consequences of the MOOC phenomenon as a social movement, this thesis marks out a new niche in MOOC discourse. It provides intellectual fodder for further research into understanding where the MOOC movement has come from, but also how it may look in the future.

RESEARCH SCOPE AND DIRECTION

As Bali (2014:45) notes, 'when discussing the pros and cons of MOOCs, one must clarify one's perspective.' Whereas Giugni et al (1999) favour a comparative approach

to studying social movements – across different movements, countries and time – for the sake of simplicity, this thesis focuses on the prospect of the MOOC movement in isolation, albeit on an international scale. Its status as an emerging and debatable movement warrants particularly close attention in its own right. That said, this thesis does provide a comparison of differences *within* the MOOC movement, highlighting how providers have varied and aligned in their positioning of MOOCs over time. It also demonstrates how users' perceptions of the MOOC movement compare with the framing efforts of providers, and also how the views of users differ between those who identify with the idea of a MOOC movement and those who do not.

In positioning itself this way, this thesis presents an assessment of the MOOC phenomenon as a social movement from a social constructionist perspective. In drawing on the social psychological paradigm, the analysis centres on beliefs, attitudes and identity, and how these can all have an impact on behaviour in social interaction. Other equally valid assessments of the MOOC phenomenon as a social movement may operate within different theoretical perspectives, such as those which address more organisational issues pertaining to the structure, resources and power of MOOC providers. However, such alternative perspectives are not the focus of this study.

Further still, let it be known that, although pro- and anti-MOOC sentiments have remained contentious throughout the duration of this research project, it is not the aim of this thesis to support or condemn either side. Here is where an elaboration of the title of this thesis is important. Rather than arguing whether the MOOC movement is a positive or negative development, the focus on the 'dark side' means emphasis is on the 'hidden' or not previously examined aspects of MOOCs; that is, the unilluminated areas. Particular attention is directed towards how and why MOOC users consider the MOOC phenomenon to be a social movement (or not), whether the movement is living up to its goals (or not), and what impacts it may be having beyond these goals.

It is also not the intention of this thesis to focus on the differences (pedagogical or otherwise) between 'cMOOCs' and xMOOCs'. For both practical and conceptual reasons, the scope of investigation is limited to xMOOC users and the three main xMOOC providers: Udacity, Coursera and edX. As previously mentioned, compared to the creators of cMOOCs, these are the providers that really made MOOCs 'massive', and they were also the first to gain worldwide recognition as pioneers of the popular understanding of the word 'MOOC'. Furthermore, while the essence of a 'MOOC' and these 'Big Three' providers has been questioned over time – especially with Udacity, since its founder Sebastian Thrun has all but abandoned the term – such developments

have not prohibited the analysis of them, and their users, presented in this thesis. This is because the period of empirical investigation underpinning the analysis preceded any such changes.

For the purpose of further clarification moving forward, below are definitions of the terms used throughout this thesis to describe those involved in the delivery and experience of MOOCs. All three terms have been used already in this chapter, but will be repeated in subsequent chapters. The first of these is *MOOC users*, used to refer to people who enrol in MOOCs. It does not matter whether they complete a course; what matters is that they have experienced what it is like to 'be' in a MOOC. The second term featured regularly is *MOOC providers*, used to refer to organisations which host MOOCs on their websites, of which Coursera, edX and Udacity are of sole interest in this thesis. Some commentators use the terms MOOC 'provider' and 'platform' interchangeably, but since Coursera, edX and Udacity have been active constructors of the very idea of MOOCs, rather than passive tools for access, the term provider seems more apt and is therefore what is used here. The third term to appear is *MOOC creators*. This is used to refer to the universities, organisations and companies producing and delivering MOOCs, to users, via providers. All three terms are used to discuss different aspects of MOOCs in the subsequent chapters of this thesis, but the two main points of focus are the users and providers.

Prior to delving into the analysis of the users and providers, Chapter 2 gives some historical context to the development of MOOCs. It looks specifically at how higher education as an 'idea' and universities as 'places' have evolved over time. It shows how fears about the disruptive potential of new technologies to the education space are not new but have persisted for hundreds of years. It shows how MOOCs, whatever the rhetoric surrounding them, appear less of a revolutionary force than an echo of the past. This is important for understanding the MOOC movement as a social construction, and how the social constructionist paradigm underpins this entire thesis. The theoretical foundations for how this thesis assesses the construction, culture and consequences of the MOOC movement are discussed in Chapter 3. Chapter 4 then provides an outline of the mixture of research methods adopted to carry out this analysis, the results of which are set out in the succeeding three chapters. First, there is an overview of users' belief in, and identification with, the MOOC movement in Chapter 5. This is followed by an assessment of the intended goals of the MOOC movement in Chapter 6, as outlined by the framing of MOOCs by providers. Chapter 7 then introduces observations around the unintended consequences of the MOOC movement. All key findings are then examined

more closely in Chapters 8 and 9. The former emphasises the intricacies of MOOC movement culture at the individual, interpersonal and broader social level. The latter looks at the intended and unintended consequences combined, and the repercussions of user culture in both regards. Limitations, implications and recommendations from this study are then included in the tenth and final chapter along with a reflection on the research project as a whole.

CHAPTER SUMMARY

In providing an overview of the emergence and evolution of MOOCs, this introductory chapter has presented the research agenda for this thesis: an assessment of the construction, culture and consequences of the MOOC movement, based on user perceptions, attitudes and behaviours as contrasted with provider goals.

Before proceeding with the theoretical foundations for examining these elements, the next chapter charts the history behind MOOCs in more detail. This historical overview embeds MOOCs in the context of higher education and helps to assuage divergent claims that they are either a revolutionary saviour to universities or an enemy of destruction. It appears that, in reality, MOOCs may reside in neither extreme, but that users, commentators, and providers each lay strong claims about them, and the MOOC movement, nonetheless.

2. Background

To give context to the construction, culture and consequences of the MOOC movement, this chapter presents a brief history of universities and ideas about higher education, from as far back as Socrates to more recent online courseware initiatives.³ In doing so, it provides a backdrop to the debates surrounding MOOCs, many of which focus on the potential of MOOCs to have significant impact on the delivery of higher education and, in turn, the role of universities into the future.

UNIVERSITIES AND HIGHER EDUCATION AS INSTITUTIONS

Generally, it is argued that there is no one ‘idea’ of either higher education or university, either now in their contemporary forms or in their historical origins. Instead there are many different and conflicting interpretations that allude to different social and cultural contexts, both within and between countries (Angus, 2012:24; Barnett, 1990:7; Delanty, 2002:4; Rochford, 2006:147). Nonetheless, as Rochford (2006) contends, for any reasonable discussion on the nature of universities and the idea of higher education, including MOOCs, some shared understanding needs to be reached to ensure effective dialogue. This may be for the purpose of recognising and maintaining ‘core’ values and functions of universities and their role in higher education, or, for achieving or maintaining their legitimacy as social institutions.

Institutions are defined here as socially constructed systems of established normative practices that shape people’s behaviour (Hodgson, 2006). Some commonly accepted institutions embedded in society are marriage, language and education. An

³ Note that this section draws from information presented in ‘The Prehistory of MOOCs: Inclusive and Exclusive Access in the Cyclical Evolution of Higher Education’ by E. Longstaff, 2014, *Journal of Organisational Transformation & Social Change*, 11(3): 164-184. Copyright 2014 W. S. Maney & Son Ltd. The article published as the version of record in the *Journal of Organisational Transformation & Social Change* can be found at <http://www.tandfonline.com/> or <http://dx.doi.org/10.1179/1477963314Z.00000000028>.

organisation can be regarded as a particular type of institution, comprising groups of individuals with common goals. They have established boundaries that discriminate insiders/members from outsiders/non-members and, in such collectives, there is a sense of hierarchy and leadership that establishes and monitors responsibilities within the organisation to help it achieve its objectives (Hodgson, 2006:18; North, 1994:361). It may also be argued that organisations and institutions are linked but separate concepts, and that 'if institutions are the rules of the game, organisations...are the players' (North, 1994:361). In this context, higher education can be seen as the overarching institution, whereas universities are the organisations charged with the provision of higher education. However, universities can still be seen as institutions in their own right, acting in accordance with their own specific objectives.

To some, the overlap and interchangeability of the terms 'institution' and 'organisation' in the context of universities and higher education can be a little confusing at times. For this reason, many try to conjure up the essence of higher education and universities to aid discussion. Firstly, there is the separation of 'higher' education from other 'lower' forms of education. As Barnett (1990:7) argues, there is a conceptual distinction between the two which amounts to far more than just different age groups completing different stages of formal study. Education can be separated into three distinct levels: primary, secondary, and tertiary. While primary education imports the basic language and numerical skills necessary for participating in society, secondary education develops and expands on these skills in various fields to enable individuals to become more culturally, spatially and analytically aware of their surroundings. The tertiary level is where higher education comes into the fold, instilling critical thinking and a greater emphasis on interpretation, evidence and creativity at all levels of enquiry. It is distinguished from other forms of post-secondary study, such as vocational education and training, because of these qualities (Fehl, 1962:20).

While offering a means to pursue such critical and reflective intellectual endeavours is territory that universities have sought to mark out as their own, in recent years many non-university higher education providers have emerged as alternatives for those seeking higher education in a non-university setting. Indeed, growth in the number of non-traditional providers suggests that the stronghold of universities over the provision of higher education has begun to lessen over time as the landscape has continued to evolve. Despite the criticism directed towards universities for their inability to embrace such change (Garrison and Kanuka, 2004:102), in actual fact, notions of university, and ideas about higher education more generally, have remained

in flux throughout history. They have been oscillating between varying degrees of emphasis on function, that is, knowledge creation and transfer, and form, that is, the place for creating and transferring knowledge (Longstaff, 2014).

FROM ANCIENT ROOTS TO MEDIEVAL BEGINNINGS

It has been said that, ‘upon his entry into a university a student inherits a tremendous past. He is adopted into an ancient family’ (Fehl, 1962:15). The patriarchs of this ancient family lay in the age of classical antiquity, or more specifically, with two of the most famous Ancient Greek philosophers, Socrates [469BC-399BC] and his ‘protégé’ Plato [429BC-347BC], and the expansion of the Roman Empire in the years thereafter (Barnett, 1990:17; Fehl, 1962:16; Kraut, 2013; Nails, 2009). As Durkheim ([1904-5]1977:19) notes, these Graeco-Roman origins are what formed ‘the first nucleus’ of the institution of higher education. In their high-level ‘teachings’, both Socrates and Plato offered up semi-organised instruction and dialogue with inquisitive youth in relatively public places, free of tuition fees. The roots of universities – of which Plato’s ‘Academy’ has been dubbed the chief antecedent – were therefore largely inclusive. Participation was effectively open to anyone willing and able to take time away from other activities to learn about the world around them (Longstaff, 2014; Monoson, 2000:138-139; Pedersen, 2000:12).⁴

After the Roman Empire forged its way into Greece and beyond, the Roman Catholic Church likewise expanded. So, too, did the presence of monastic and cathedral schools throughout Europe. These became the central teaching facilities up until the eleventh century, steering academic enterprise away from the pagan teachings offered by the earlier Greek scholars towards instruction that promoted more Christian-friendly values (Clarke, 1971:119-140; Cobban, 1975:3; Siemens and Matheos, 2010). By the eleventh century, Europe’s population had undergone a major shift, with the west and south having experienced unprecedented levels of urbanisation over the previous two hundred years, leading to the emergence of ‘trading towns’ as new hubs for economic,

⁴ Much of the discussion of the origins of higher education centres heavily on Western civilisations, with the expansion of the Roman Empire into Greece and into other parts of Europe resulting in the dispersion of this early form of higher education. However, it is important to note that there have been other developments in regards to ‘higher’ order thinking, both in the Middle East and in China (Clarke, 1971:14; Durkheim, [1904-5]1977:19-20). Certainly, one of the most famous Chinese philosophers, Confucius, is credited with making the distinction between ‘the usual and ordinary and the higher and ideal’ with regards to human thought and education, and he died in 479 BC, a decade before Socrates was even born (Fehl, 1962:269). Nonetheless, because the majority of the world’s universities are based, to some extent, on the Western European model, and the focus of this thesis is on the goals and users of the three major MOOC providers – which are all based in the United States – the emphasis on the Western history of universities and higher education here is justified.

social and intellectual activity (Pedersen, 2000:103; Perry et al, 2007:xxvi; van Werveke, 1965:11). Such expansion meant that monastery schools could no longer keep up with the educational demands of an ever-growing populace, and soon the concept of the 'university' known today was born. The University of Bologna is regarded as the first, established around the late eleventh century. The University of Paris and Oxford University emerged in the early and late twelfth century respectively, followed by the founding of the University of Cambridge in 1209 (Cobban, 1992:1247; Pedersen, 2000:155; Siemens and Matheos, 2010). As with the higher-level teachings of Socrates and Plato, these early universities were considered to be relatively inclusive enterprises (for males anyway). The only requirement was for students to speak Latin and support themselves during their studies. They required no formal age, citizenship or academic status for entry, nor did they have to undertake a full degree to be eligible to participate (Barnett, 1990:19; Pedersen, 2000:213; Schwinges, 1992:171). Indeed, medieval European university studentship varied considerably. Everyone was essentially a 'foreigner', and while some were from poor backgrounds, others were from wealthy ones (Cobban, 1992:1250; Verger, 1992:41).

These early universities were fundamentally 'communities', as indicated by the definition of the original Latin term *universitas*, understood as a 'corporation' or guild-like community comprising of teachers and students (Graves, 1910:86-87; Longstaff, 2014:170). These medieval universities were not 'places' as such, nor was place considered central to the concept of a 'university' at this time, as Oakeshott (2004:24) has been clear to point out. Prior to the construction of dedicated university lodgings in the fifteenth century, teachers were renting town buildings to deliver their lectures and tutor aspiring scholars. This meant that they entertained a high degree of mobility in their operations (Cobban, 1992:1247; Gieysztor, 1992:136-139). As Durkheim ([1904-5]1977:89) put it, the earliest universities were basically 'rootless' communities. Only with the eventual construction of dedicated buildings did roots begin to take hold, along with a desire to consolidate resources in the one spot rather than limit them to aid relocation (Gieysztor, 1992:139).

By 1789, there were 143 universities in Europe (Rüegg, 2004:3; Siemens and Matheos, 2010). By 1815, in the aftermath of the French Revolution and Napoleonic Wars, only 83 remained. This number increased to 98 by the mid-1800s, showing once again, a strong desire to engage in the spirit of university education for the distribution and legitimisation of knowledge and specialised training (Rüegg, 2004:3; Shils and Roberts, 2004:164). It was also during this latter period, the Age of Enlightenment, that

measures of the physical world began gaining greater prominence in academic enquiry. This, in turn, saw the transformation of the medieval university to the modern research university (McCluskey and Winter, 2012:35). With the expansion of empiricism came the need for more dedicated laboratories and, hence, more university buildings.

TECHNOLOGICAL CHANGE AND THE EMERGENCE OF THE 'INVISIBLE UNIVERSITY'

At some point between the start of the nineteenth century and the end of the Second World War, the notion of the 'invisible university' emerged. This brought higher education back to its early medieval roots, and a time when high levels of mobility were an everyday reality for students and academics alike (Charle, 2004:74-75). The term gained prominence with the very first incarnations of distance education, when, in 1840, courses started being offered in Britain by correspondence. Such a feat was only possible with the introduction of the British Postal Service (Guri-Rosenblit, 2005a:469; Rumble, 2001:31). This is when the prospect of studying 'anywhere, anytime' was first realised, and when fixed brick-and-mortar campuses were again considered non-essential to the higher education experience. By the late 1800s, non-British providers also established correspondence courses. This indicated a growing demand for higher education worldwide, even if correspondence courses were not the mainstream study mode and acceptance of distance education varied by country (Casey, 2008:46; Rumble, 2001:41)

Certainly, not everyone was enthused by the correspondence education movement. In the US in particular, there was widespread condemnation of 'bogus' accreditations popping up from so-called correspondence 'diploma mills', from which people could simply buy themselves recognition for having completed a university degree without actually having undertaken any courses whatsoever. The anxiety over this 'prostitution' of higher education through purchased degrees was particularly poignant for high-skilled professions, such as medicine, engineering and law, where there were grave fears over the possibility of people's lives being in the hands of potentially unqualified 'professionals' (Lumadue, 2006:264). Despite the stain that any so-called 'bogus' degrees left on the reputation of early correspondence courses, which Sumner (2000:274) argues has, in countries like the US, taken many years to overcome, learning at a distance has become a much more mainstream part of education. This has been seen across the globe, from primary school right through to university. According

to Casey (2008), this increase in public acceptance has been the result of growing trust in advances made in communication technologies, and the assimilation of such technologies into everyday activities.

Historically, with each innovation in communication technology, there have been claims of disruptive potential for teaching and learning practices. When the printing press was invented in 1450, books were considered a highly revolutionary development. They were able to disperse knowledge more broadly than cathedrals ever could, and so stood as a threat to the very existence of the clergy and the role of religious structures in educating the general public. Effectively, it was thought that: 'the book of stone, so solid and so durable, was about to make way for the book of paper, more solid and still more durable' (Hugo, [1831]2004:227). The educational textbook was an equally confounding invention. Prior to the eighteenth century, students had to engage with their teachers in order to gather new information on a particular topic. With the rise of these standardised bundles of information from the early 1700s onward, there was a fear that this academic authority over knowledge distribution would be lost. The belief was that students would miss out on the interactive exchange between teacher and learner that universities had prided themselves on since Socrates (Hartnett, 2013). Years later, following the introduction of the first instructional films in the US, the famed American inventor Thomas Edison proclaimed in an interview that:

Books will soon be obsolete in the public schools. Scholars will be instructed through the eye. It is possible to teach every branch of human knowledge with the motion picture. Our school system will be completely changed inside of ten years (Smith, 1913).

We now know that cinematography did not demolish the written word, nor did it do away with the book. Similarly, although the invention of the printing press resulted in mass production of the Bible, which meant that biblical stories were no longer restricted to the confines of cathedrals, the stained glass and clergy have nonetheless remained (Fisher, 2012). The same can be said of the contraction of universities during the First and Second world wars, the subsequent expansion of universities soon afterwards, and the technological innovations in distance education that coincided with this expansion, such as televised coursework programs like 'Sunrise Semester', which was broadcast in the United States from 1957 to 1982 (Kim, 2013). In spite of these changes, universities and their teaching staff have stayed at the core of higher education delivery. Still, fears about what impacts new technologies will have on higher education delivery have nonetheless persisted. MOOCs have simply presented themselves as the latest incarnation of these anxieties, albeit in an online format. That is not to say, however,

that there have not been more concerns about other ‘disembedded’ forms of higher education that have appeared along the way, especially those emerging as a result of the advent of information and communications technologies (ICTs).

TEACHING BEYOND THE CLASSROOM

No longer bound by paper documents and books, nor separated from the outside by physical walls, universities have come to operate in an increasingly digital and online domain (McCluskey and Winter, 2012; Walsh, 2011:xvii-xviii). In the online world, the university is not restricted to standard business hours of operation; it is accessible all day, every day, from any physical location (Bjarnason, 2004:144). While the proliferation of online education has helped legitimise previous correspondence education initiatives by promoting mastery of course content over physical attendance, not all in the higher education sector have welcomed this shift. Rather than believing that, because of online education, place has become less important in people’s educational careers, many educators have come to regard face-to-face interaction as integral to achieving effective learning outcomes and a positive teacher-student relationship. Their argument is that ‘machines cannot replace the magic that occurs when bright, creative young people live and learn together in the company of highly dedicated faculty’ (Vest, 2005). Many university administrators and economically-minded stakeholders, however, see online education as an efficient and cost-effective way to meet the growing demand for higher education worldwide; a demand that would be impossible to fulfil through current on-campus offerings alone (McCluskey and Winter, 2012:161; Pittinsky, 2003:78).

Part of the resentment about the drive to expand university education beyond the campus is due to the push from external forces, namely the need to compete with for-profit higher education providers that operate online. Competition resides not only in the share of the now worldwide student market, but also in the authority over the quality and credentialisation of learning outcomes (Atkinson, 2001; Helmi, 2002:245; Matkin, 2012; Ziguras and Rizvi, 2001:2). The more non-traditional – that is, non-university – higher education providers that enter the marketplace, the more the hallowed halls of the ivory towers want to be seen to be helping democratise higher education by ‘opening up’ to the outside world (Hanna and Latchem, 2002). But in promoting such an image, universities are potentially threatening to diminish the value of what has come to be

seen as the 'traditional' campus-based higher education experience. In an interview from 1997, economist Peter Drucker famously said that:

Thirty years from now the big university campuses will be relics. Universities won't survive. It's as large a change as when we first got the printed book.... Already we are beginning to deliver more lectures and classes off campus via satellite or two-way video at a fraction of the cost. The college won't survive as a residential institution. Today's buildings are hopelessly unsuited and totally unneeded (Lenzner and Johnson, 1997).

Such a view suggests that contemporary higher education is now in the midst of a major transformation, and that universities need to put in significant effort to stay relevant. Relevancy may be achieved through the widespread implementation of a 'placeless' model of higher education, one that incorporates a wholesale shift towards online delivery. Conversely, it may be the benefits of a 'traditional' model of university education that are promoted through campaigns that posit face-to-face instruction as inherently superior to online alternatives. The specific direction adopted by individual universities is likely to be a reflection of their target market. However, as more people are now engaging in higher education than ever before, it is clear that 'learning is no longer one size fits all' (Davidson and Goldberg, 2010:25). Increasingly diverse students have increasingly diverse needs, many of which revolve around the connectivity and convenience afforded by the internet. In this respect, universities have come to find themselves in the middle of 'the perfect electric storm, where technology, the art of teaching, and the needs of learners are converging' (Bonk, 2004:2).

THE RISE OF ONLINE EDUCATION AND THE 'NON-TRADITIONAL STUDENT'

Although online education may seem like a relatively new development, only gaining serious momentum in the last few years, records suggest that it has a far longer history. According to Harasim (2000:42-43), individual courses have developed in tandem with the advent of ICTs since the 1970s, and online adult education courses have been available since 1981. Moreover, online undergraduate and graduate university courses have been active since 1984 and 1985 respectively, with fully online degrees accessible as early as 1986 (from Connect-Ed) and 1989 (from the University of Phoenix).

Despite many of its students learning in physical classrooms, the University of Phoenix has become one of the biggest names in online education (Breneman, 2003:6). Whatever its reputation as a higher education establishment, its dedicated online

presence and entrepreneurial spirit has had a major impact on how all universities have come to perceive their mission and their students. Established as a for-profit university for the ‘non-traditional’ student, it found popularity among adult learners who, because of family and work commitments, had previously been relegated to night schools and weekend seminars (Capra, 2011:288; Chau, 2010:178). By enrolling at the University of Phoenix, and at similar for-profit institutions that have cropped up in its wake, these types of learners have become highly valued customers, able to pay to for the courtesy of working towards a university degree at times that suit them (Breneman, 2003:24-25; Pepicello, 2012:133).

Whereas in the 1970s and 1980s, the traditional, unemployed 18-24 year old age bracket made up the majority of students, nowadays in many countries it is the ‘non-traditional’ students that are becoming commonplace (Altbach, Reisberg and Rumbley, 2009:99-100; Levine and Cureton, 1998:14; Matkin, 2012; Pepicello, 2012:133). These students tend to be older, more likely to have familial responsibilities, and be in paid employment. This means that they require greater flexibility in how they access higher education. With the expansion of this non-traditional student-base, students across the board have come to expect more flexibility with their studies. Added with the prospect of accessing educational materials online, the need to set foot on campus has continued to lessen (Anderson, 2006:88-89; Capra, 2011:288; Cavanagh, 2012:215). Because of this increase in choice and student diversity, university education has now taken on different meanings and expectations for students (Levine and Cureton, 1998:14). Subsequently, higher education, and online higher education in particular, has become a highly individualised concept. It is now about education that is ‘just in time, just for now, and just for me’ regardless of individual circumstance, academic background or age (Hanna and Latchem, 2002:115).

STUDYING ONLINE

With a growing emphasis on flexible study modes among university students, it is not surprising that a recent US study found that the majority of students who enrolled in an online university course actually lived within a hundred miles of the institution delivering the course (Aslanian and Clinefelter, 2012:6). This suggests that online education is not just undertaken by those wishing to overcome geographic constraints, as was the hallmark of the correspondence education movement. It may have other

valuable traits as well. Proponents of the online model argue that a preference for learning via the internet actually has a lot to do with the actual experience involved. Rather than being cold and isolating, there is a suggestion that online education environments can actually provide greater social interaction among teachers and students than might otherwise be achieved in face-to-face settings. The relative anonymity and permanency of online statements are said to play a significant role in generating considered responses from even the most introverted students (Bennett, Chan and Polaine, 2004; Harasim, 2000:48). In this sense, online education can provide a seemingly neutral learning environment that welcomes both the social butterflies and the socially awkward (Abeles, 2000:84).

Larreamendy-Joerns and Leinhardt (2006:577) suggest that a preference for online education may not always be because a face-to-face study mode is not practically possible, but because it is not always desired. Although this may hint at learner aspirations to focus on other priorities (such as their job or family), it may also indicate a preference for online interaction over face-to-face encounters more generally, purely from the point of social engagement. In an age where a visit to the local supermarket shows that many people prefer to line up to use self-service counters instead of being served immediately by a cashier, a preference to lessen physical interaction in education settings is not hard to comprehend. Whether or not this is actually part of the reasoning behind the proliferation of online enrolments in recent years, is another matter.

Of course, as previously noted, not all students are alike. The contemporary student body is diversifying, as is the delivery of higher education. Students today have many options in how they access their education, and consequently, previous distinctions between on- and off-campus students have been made largely redundant (Bejerano, 2008:410-411; Gosper et al, 2010:259; Preston et al, 2010:718). Some may choose to study wholly online, or undertake a 'blended' mode of study that mixes online lectures with face-to-face tutorials. Others may opt to experience all of their education on campus, despite the alternatives that technology allows. Those who take the latter route may be more inclined to find attending lectures more engaging than listening to audio or video footage streamed from their computer, or they may like to mingle with fellow classmates. They may also enjoy the routine of sticking to a strict timetable of classes to keep their study efforts on track (Gosper et al, 2010:258; Guri-Rosenblit, 2005a:479). Whatever the individual preference for delivery, the fact of the matter is that online education is on the rise. As such, it is worth pursuing further the potential drivers behind its proliferation.

THE COMMODIFICATION OF HIGHER EDUCATION

Considering the commodification of higher education as a driving force behind the proliferation of online education means viewing the student as a consumer and the university, and any academic who works for it, as the service provider. Student-consumers want ‘anywhere, anytime’ services, with as little fuss as possible. Online technologies can make such demands a reality. Educational resources are no longer confined to the standard business hours that university campuses operate. They can be accessed, via the internet, at all hours of the day and night. Now that universities are not restricted to operate in local domains or even in local time zones, there is no need to limit university operations to a particular national audience. They can tap into the global market instead.

Because of such changes, according to Readings (1996:3-12), the university of old is now in ‘ruins’, compromised by a corporate mindset and a desire to progress in the worldwide competition for students and rankings. There is an increasing aspiration among university administrators to extend their institutional reach, one that may underpin the very establishment of online offerings. Indeed, certain online education initiatives may be indicative of a university’s desire to entice new students by appearing to be at the forefront of innovation and technology, rather than a reflection of any kind of altruistic quest to democratise higher education (Hanna and Latchem, 2002:128; Larreamendy-Joerns and Leinhardt, 2006:571; Milojevic, 2000:176-177). Similarly, online technologies may be seen as undermining the very essence of higher education by enabling commercialisation at a global scale. In pursuing such a capitalist agenda, while trying to mean all things to all people, universities, according to Waks (2007:108), may be regarded as ‘shadow institutions’; organisations with no clear sense of identity or purpose other than to market their wares to a global consumer-base (Selingo, 2013:6). What Noble (2001) contends, however, is that consumerism in higher education is not solely the blame of contemporary globalisation and online communication technologies. For-profit enterprise in higher education, he argues, has been around since the emergence of correspondence education. In this sense, the very existence of online education, the democratic sentiment that it espouses, and the role that it plays in the commodification of knowledge, is ‘more a rerun than a revolution’ (Noble, 2001:1).

Still, just because there is a sense that history is repeating itself, doesn’t mean that we should ignore some of the criticisms of the capitalistic principles associated with

the proliferation of online higher education delivery. One is the exploitation of workers in the push for profit and efficiency; the other is the alienation of consumers from the origin of their purchased product. With regards to the former, one concern of many academics is that, once they put course materials online, they will become dispensable resources. Because online courses do not require face-to-face interaction with a teacher, once created, the same course can be run over and over again, year after year, without the need to employ that teacher to actually create and deliver new content. Subsequent iterations of the same course can be managed by technical or administrative staff instead (Catherall, 2006; Noble, 2001:33). This is one of the key reasons why many university faculty members have such a negative view of the expansion of online education, and of MOOCs in particular. They feel as though it not only threatens the quality of higher education, but that it could also threaten their jobs and the kind of teaching environment that they themselves experienced and looked up to as students (Allen et al, 2012; Bowen, 2013:6; Trow, 1999). The apparent alienation of students to the real-life creators of their online courses, whom they may never even see or meet, implies a similar degree of indifference towards the role that academics play in the learning process. Like a large-scale factory in some far off place, online learning makes academic course creators 'invisible' to their market (Blair and Monske, 2003:446-448). As creators of the online courses (product), they aren't considered to be important. The main concern is that there is a course (product) to deliver (sell) to a student (consumer) who desires it (Chau, 2010:185).

UNIVERSITIES IN THE AGE OF THE 'KNOWLEDGE SOCIETY'

In contrast to the view that universities are becoming money-hungry corporations in a state of identity crisis, it has been suggested that one of the reasons why universities are expanding into the online education sphere is to serve a more wide-reaching purpose: to meet the needs of broader society, not just of individual students or institutions (Blackmore, 2002:419). This idea rests on the notion that we are living in the age of the 'knowledge society', at least for those with a sociological mindset. For those with an economic slant, reference is made to the 'knowledge economy' instead (Välilä and Hoffman, 2008:265).

For Lane (1966), the concept of the knowledge society is an entirely 'modern phenomenon', inextricably linked to the rise in scientific thought. Such a society is said to come about when scientific thinking, that is, logic and reasoning based on observed

evidence, becomes the prevailing sentiment over ideology and politics. According to Lane (1966), we have come to find ourselves living in a knowledge society as a result of the 'second scientific revolution' of the 1960s, a time when increases in public funding in scientific research were coupled with growing resentment of the ideological trappings underpinning much of the political conflicts of the preceding decades. Drucker's (1969:248) notion of the 'knowledge economy' posits an alternative view. Here, the 'knowledge industries', like science and technology and other knowledge producing professions, are what dominate discussion, not 'scientific thought' per se. Essentially, in the knowledge economy, the 'knowledge workers' are the focus as they are the ones who dictate national prosperity (while in non-knowledge-based economies, the main reliance is either on exploitation of natural resources or manufacturing and unskilled labour). Unlike Lane, Drucker (1969:249) also makes a distinction between 'knowledge' and 'science', suggesting that, although science is a prominent force in contemporary society, all knowledge-producing fields have become areas of high demand in both public and private sectors. And while Lane proposes that the knowledge society emerged from the scientific developments of the 1960s, Drucker (1969:269) suggests that, at that time, the shift from manual to knowledge-based work had yet to reveal its full effect. As such, further transition was still required for the knowledge society to be fully realised.

According to Friedman (2007:271), this transition has finally been completed, and we have been living in a knowledge society since 2005. With the advent of new web-based technologies, portable communication devices and social media, the creation, transfer, and analysis of information into knowledge have now come to permeate all aspects of society (Bennett et al, 2004; Lingenfelter, 2012:9). Consequently, the role of the university as a hub for knowledge creation and transfer has become less clearly defined. This is despite the mounting expectations placed on higher education institutions by industry and policymakers alike to enhance their knowledge outputs to remain internationally competitive (Arimoto, 2002:139; Brennan, 2008:382; Marginson, 2007:xi). Because of this competitiveness, and the demands placed on universities by an ever-increasing number of student-consumers, universities have needed to become highly flexible and accountable to a host of stakeholders. These stakeholders serve as both a signal of the continued relevance of universities in society as knowledge producers and legitimisers, as well as the mark of their fall into so-called 'ruin' (Hanna and Latchem, 2002:118; Paul, 2002:207). The future outlook for universities in the knowledge society, according to Raschke (2003), is that ICTs will

cease to serve as a means of communication within the broader context of the institutional environment; they will instead *become* the environment, the very essence of the university itself. This is a prospect that the staunchest critics of MOOCs vehemently oppose.

THE PARADOX OF PROGRESS

The internet is often heralded as the key democratising force for contemporary higher education, providing unprecedented access to information and resources (McCluskey and Winter, 2012:74; Walsh, 2011:xvii-xviii). It is also endorsed for its ability to shed light on learning processes like never before, thanks to the power of digital technologies which can track individual engagement with every click of a mouse and stroke on a keyboard (McCluskey and Winter, 2012:75). The paradox of this ease of access for students is that academics now tend to spend much more time working in the digital environment than they would have worked previously, and that the concept of official office hours is fading fast (Blair and Monske, 2003:446-448). Because of this, online courses are readily scorned for the added stresses they place on academic workloads. As educators-cum-service-providers, academics in the digital age are essentially expected – at least in the eyes of some students – to be available, via online forums and email, around the clock (Birch and Burnett, 2009; Noble, 2001:32). In the words of Navarro (2000:129), ‘a cyberprofessor trades the “chains” of lecturing in a classroom for a predictable number of hours at a specific time and place for the more unpredictable “freedom” of being accessible by email and other cyber technologies...drawn into an endless time drain.’ Just as learning is now heralded as an ‘anywhere, anytime’ activity, so is teaching. In an era where the internet is king, academics also have to consider that their own activities may be closely monitored (Blackmore, 2002:431; Davidson and Goldberg, 2010:95). According to Noble (2001), this, and the devolution of duties to computers or lower level teaching staff, shows that digital technologies and online education threaten the de-professionalisation of the professoriate. Such a de-skilling of the teaching profession is a fate which Lyotard (1984:53) predicted more than thirty years ago with his anticipation that computers would gain ever greater prominence in the acquisition and dissemination of information and knowledge.

One of the main endorsements of online education is that it makes education more widely accessible to prospective learners than ever before. However, as Chau (2010:186) points out, just because learning materials are placed online does not mean

that everyone has the technological or conceptual means to access or comprehend them. Despite their best efforts to democratise higher education in a ‘borderless’ world, proponents of online education are sometimes accused of pursuing a largely elitist agenda; one that widens the digital divide, perpetuating rather than diminishing the gap between the ‘haves’ and the ‘have-nots’ (Chau, 2010:187; Hanna and Latchem, 2002:115; Razak, 2011). From this perspective, online courses, rather than catering to more inclusive student needs, may actually be quite exclusive in their realisation (Guri-Rosenblit, 2005b). Far from being a ‘one size fits all’ approach to education, online education has been shown to work best for individuals with high levels of autonomy and self-organisation. They are the ones with the kinds of time management skills required to navigate the flexibility that comes with learning online (Allen and Seaman, 2006:12; Bejerano, 2008:412). For those unable to manage such flexibility, but who choose to undertake online courses for this very reason, the process of learning via the internet may be much more difficult than first anticipated (Capra, 2011:289).

Two other paradoxes arising from the rise on globalised online learning relate to source and cost. While the world’s most elite universities have often been seen as best equipped, technically and financially, to change the way they deliver higher education through the implementation of wide-scale online education programs, history shows that these institutions have generally been the most reluctant to do so (Guri-Rosenblit, 2005b:18). And while online education has often been seen as a cost-saving mechanism for higher education, the development of online courses has been known to attract more time and money than those requiring face-to-face delivery (Guri-Rosenblit, 2005b:19; Moreno-Gera et al, 2008:2533).

Despite, or perhaps because of, these paradoxes, online education is regularly touted as having the technological means to disrupt the very essence of contemporary higher education. Distinguished from ‘sustaining’ innovations, which are improvements on existing products or services, Christensen, Aaron and Clark (2001:23) define ‘disruptive innovations’ as products or services that are ‘cheaper, simpler, more convenient products or services – and reach customers who are not well-served by the current offering.’ Put simply: they provide greater access to more people at a lower cost. This is precisely what online education is marketed on, and why many have been so worried about it. By offering a new higher education product to a broader market, and charging students less in the process, many believe that expectations about online offerings, and thus the reach and nature of higher education generally, can fundamentally change, and that online education can become the new norm (Christensen et al, 2001:28;

Hanna and Latchem, 2002:116; Matkin, 2012). According to Christensen et al (2001:20-38), such change means that those who refuse to implement online education technologies, or who try to do so within the confines of a 'traditional' higher education framework rather than create a new model specific to the online environment, will get 'left behind' or 'wither' away. Meanwhile, those who embrace these disruptive forces will thrive.

PARADIGM SHIFT = POWER SHIFT?

Regardless of whether or not universities are ripe for disruption, there are fundamental changes afoot. Not just in terms of how universities operate within such an information-hungry environment, but also what knowledge is regarded as acceptable and desirable. With online education making significant inroads as a legitimate alternative to place-based education over the last decade or so, some have suggested that universities can no longer refrain from providing online study options and expect to remain sustainable over time (Harasim, 2000:59; Larreamendy-Joerns and Leinhardt, 2006:570; Selingo, 2013:115). Since online education is about more than just globalising institutional reach – it is also about consumer convenience and providing a desirable service to an increasingly picky market – universities may simply need to 'virtualise or disappear' (Inayatullah and Gidley, 2000:9).

University mandates for large-scale online course delivery may be seen as a university's attempt to play catch-up to changing trends in student lifestyles and learning expectations. They may also be seen as an indication that traditional providers have lost the upper-hand with regards to defining the standards of higher education, and that the expansion of some universities into the online arena is an active attempt to regain, or retain, power. Take Deakin University, for example. In 2004, it made 'a mandated movement to online learning' by compelling each undergraduate student to complete a minimum of one unit of study entirely online (Holt and Challis, 2007). While indicative of a pro-online delivery stance, such a deliberate attempt to dictate the mode of access to higher education, in an era supposedly governed by student choice and flexibility, is critical to discussions of the relationship universities have with online education more widely. Learners now have access to a wide array of non-traditional and non-academic sources, beyond the confines of particular institutions and countries, through which they can obtain information and achieve desired learning outcomes (Siemens and Matheos, 2010; Waks, 2007:103). In such a climate, power is no longer

exclusively held by the teacher or the institution, it has begun to shift to the mind, and wallet, of the ever-demanding student-consumer (Cornelius and Gordon, 2008:33; Delucchi and Korgen, 2002; Dziuban and Moskal, 2011:326; Noam, 1995:247; Skolnik, 2000:57-58).

With the continuous spread of ICTs, social media and portable media devices such as smart phones and tablets, the nature of the activities being conducted on the World Wide Web – and with it, the nature of knowledge production – is changing (Siemens and Matheos, 2010). The initial phase of internet technologies (dubbed ‘Web 1.0’) created a rather static environment in which information was published on websites and passively consumed by individuals seeking to access such content. Nowadays, information is in a constant state of exchange, refinement and critique (Craig, 2007:154; Katz, 2008:29). In the post-Web 1.0 era, the academic stronghold over what comprises ‘legitimate knowledge’ – in both quality control and authorship of content – is arguably weakened (Davidson and Goldberg, 2010:7; Katz, 2008:29; Larreamendy-Joerns and Leinhardt, 2006:572; Siemens and Matheos, 2010). As such, the line between ‘expert’ and ‘lay’ knowledge is becoming increasingly blurred, as is the ‘knowledge gatekeeper’ role of universities (King, 2004:65; Taylor and Dunne, 2011:637).

LESSONS FROM ONLINE COURSEWARE

The notion of doing away with ‘gatekeepers’ is precisely what Walsh (2011) discusses in her book, *Unlocking the Gates*. In it, she examines the rise and fall of some of the most high profile online courseware initiatives offered by prestigious universities over the last decade or so. These initiatives that show that, in the past, online educational endeavours that have been motivated by financial gain, but lacked any promise of academic credit, have failed to achieve mass appeal.

In a seemingly altruistic move to build on the success of the dot.com boom at the turn of the twenty-first century, and an effort to improve global access to higher education materials, some of the most elite academic institutions in the US and the UK joined forces to establish educational platforms specifically for hosting academic content online (Abelson, 2008:165; MacLeod, 2006). The three notable players in this category were Fathom, AllLearn and OpenCourseWare (OCW). Fathom was a for-profit enterprise aimed at producing a ‘high-end’ public knowledge repository, started in 2000 by Columbia University in partnership with the New York Public Library, the Smithsonian Institution’s Museum of Natural History, the London School of Economics

and Political Science, the British Library and Cambridge University Press (Arenson, 2003; Carlson, 2000). AllLearn, also founded in 2000, was a joint not-for-profit venture between Yale, Oxford, Stanford and Princeton universities, and was primarily designed to provide a lifelong learning resource for alumni (Blau, 2003; Walsh, 2011:33). While Fathom sought to earn a profit from its users, and AllLearn simply wanted to cover its overheads, both charged users to access content (Bowen, 2013:134; Walsh, 2011:45).

MIT launched OCW in 2001 in an effort to both keep up with, and stand out from, these other online education offerings by providing permanent online access to its undergraduate and graduate course catalogue, without charge. This concept of 'free access' was at odds with the business model of other prestigious higher education institutions at the time (Carson, 2009). Though not initially driven by the Open Educational Resources (OER) spirit – which operates on the premise that technology should be engineered to enable access to educational resources anywhere, anytime, and by anyone – MIT's OCW platform nonetheless provided unprecedented access to university course materials (Abelson, 2008:164; Matkin, 2012; Walsh, 2011:19-20). It allowed people from around the world to download lecture notes, course plans and reading lists from MIT's extensive course catalogue, all for free (Atkinson, 2001; Weiss, 2011:66). By 2012, OCW had proven its appeal, with more than two thousand courses published, and 125 million visits to its website (ocw.mit.edu) – a significant jump from the total of 50 courses published just ten years prior (Massachusetts Institute of Technology, 2014). By 2014, the homepage of the global OCW Consortium (ocwconsortium.org), established in 2005, boasted of the scheme's potential to have major global impact, claiming to offer in excess of 30,000 course modules from more than 280 organisations in 40 different countries (d'Oliveira et al, 2010).

Contrast this with Fathom, which closed in 2003 despite US\$25 million in investments (Arenson, 2003; Grimmelmann, 2013:2). AllLearn followed a similar fate, closing in 2006 (MacLeod, 2006). The failure of both of these ventures was put down to the idea that charging for information resources in an internet-driven era was not a viable business model; users would simply seek such information elsewhere where such a paywall did not exist (Arenson, 2003; Walsh, 2011:53). Fathom's president, Ann Kirschner, noted that while the market for online education still appeared fairly uncertain at the time of the company's closure, the overall sentiment seemed clear. She said that if people were going to pay money to access information with the intention of acquiring new knowledge, they would want certification (Blau, 2003). In other words, it was assumed that most people require academic credit for their learning efforts in order

to be engaged; a thirst for lifelong learning just was not enough to guarantee success. Moreover, it was also assumed that people would be willing to pay for online courseware if such an outcome was to be achieved.

The certification of knowledge and the awarding of academic credit were central to discussions about OCW. Their absence was precisely what kept possible encroachment by the OER movement in-check, and the gatekeeping role of universities intact. After all, ‘credits [have been] *the* currency of higher education’ (Selingo, 2013:107). By giving away content away for free, but withholding credit for any kind of mastery of that content, MIT appeared to have, as Walsh (2011:243-244) suggests, ‘unbundled’ the learning experience. By preserving their credentialing role, they ensured that the free distribution of MIT content did not undermine the value or prestige of a full MIT degree. This content-qualification distinction was paramount. As former MIT Provost Robert Brown was sure to make clear, whatever the university did with OCW, it had to in no way ‘devalue’ the MIT brand (Walsh, 2011:244). In effect, MIT’s free online venture was designed *not* to be equivalent to what MIT had to offer on campus. As OCW’s former Chief Executive Officer Anne Marguiles said in 2003, OCW may have provided ‘a snapshot of the way a particular subject in a particular discipline was taught at one period in time at MIT...[but] it [was not] an MIT education’ (Diamond, 2003). An MIT education was, and is still, a significant financial undertaking, costing upwards of US\$185,000 for a four year undergraduate degree (Massachusetts Institute of Technology, 2016). In this regard, it would be safe to suggest that OCW was never intended to supplant university degrees or threaten their place in the higher education landscape (Kirkpatrick, 2006:53).

The ostensibly philanthropically-motivated correspondence education initiatives from well-known universities in the nineteenth century seem to have been similarly coupled with self-interest. As the June 1892 edition of the University of Chicago’s *Official Bulletin* plainly stated, the purpose of the university’s correspondence education effort was:

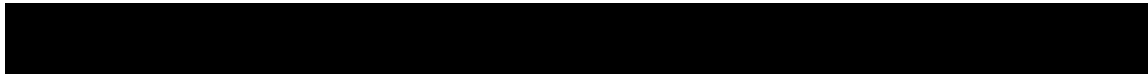
To provide instruction for those who, for social and economic reasons, cannot attend in its classrooms [as this] is a legitimate part of the work of every university. To make no effort in this direction is to neglect a promising opportunity for building up the university itself (Mallory, 1916:42).

The MOOC platforms that emerged in the wake of correspondence courses, and the more recent exploits of OCW, have presented a similar scenario, but on an even bigger scale. Increasing numbers of universities and other organisations have continued to sign

up to Coursera, edX and Udacity to tap into the global market of prospective learners eager to access high-quality education materials online for little to no cost. For universities in particular, MOOCs have offered a new way to fulfil concurrent objectives. They have enabled them to: (1) expand access to higher education; (2) research how people learn online, to better their other fee-based offerings, on and off campus; and (3) advertise their wares to an unprecedented global audience. As with OCW, Fathom and AllLearn, there have been questions surrounding MOOCs about the problems and merits of providing free, modulated courseware versus charging for the opportunity for academic credit towards full degrees. There have also been queries as to the long-term viability of MOOCs, and of affiliated universities, in the event of either occurrence. While this thesis does not explicitly address these issues from the point of view of universities, it does provide an indirect examination in the sense that it looks at how the goals of providers – in delivering this relatively novel form of free education – compare with user experiences of them. In doing so, it demonstrates how the longevity of the MOOCs (and in turn, the MOOC movement) may be impacted by the attitudes and experiences of people who have actually experienced them.

CHAPTER SUMMARY

This chapter has provided an overview of the issues pre-dating the emergence of MOOCs. It has shown how the history behind the free courses can be traced from recent twenty-first century online courseware initiatives all the way back to the medieval and ancient roots of the world's first universities and ideas of higher education. By situating MOOCs within the broader higher education landscape, one can conclude that concerns and opportunities around disembedded and consumer-based education, and the role of academics in the dissemination and control of knowledge, are not new. Nor are fears about the disruptive potential of new communication technologies. Many of the concerns about MOOCs are simply echoing the anxieties of the past, albeit with greater magnitude given the numbers of creators and users that have embraced MOOCs to date. What this implies is that the idea that the MOOC phenomenon is a new movement, with revolutionary potential, is essentially a social construction. Precisely how the MOOC phenomenon can be conceived as a social movement is the focus of the next chapter, with an emphasis on the social psychological and cultural perspectives adopted throughout this thesis. Also provided is further information on the conceptualisation and analysis of the MOOC movement's intended and unintended consequences.



3. Theoretical foundations

As premised in the introduction, this thesis revolves around the examination of the MOOC phenomenon as a social movement. It is about whether those who use MOOCs believe in and identify with the concept of the MOOC movement, what the movement's goals are, and how these goals compare with the lived experience of users. This chapter provides the theoretical basis from which such a conceptualisation can occur, as well as the grounding for the analysis of movement consequences in subsequent chapters.

VIEWING THE MOOC PHENOMENON AS A SOCIAL MOVEMENT

To understand what makes the MOOC phenomenon fit within the realm of social movement scholarship, one must also understand that there are many questions that arise about precisely what constitutes a social movement to begin with. As Crossley (2002:2) outlines:

We would all agree that social movements are 'collective' ventures...but what makes a venture count as collective? Is it a matter of numbers? If so, how many? Is it a matter of a type of interconnection between people, an organisation or network? If so, how is that interconnection itself defined? Does 'wearing the badge' and 'buying the T-shirt' make one part of a movement or must one attend monthly meetings and engage in protest? And if the latter, what counts as protest?...There can be no decisive answers to these questions. Social movements manifest...as a 'family resemblance'. Each movement shares some features in common with some other movements...and yet those characteristics which are unique to some are not shared by all. Even within the same movement we find diversity, and all movements change....Having said this, we cannot dispense with general definitions altogether.

Social movement theory, like social movements themselves, has undergone great transformation over the last hundred years or so. This has resulted in varying definitions of social movements over time, many of which are historically located within specific contexts (Langman, 2005). To counteract historical specificity, this thesis has adopted a

deliberately inclusive conceptualisation of social movements. It takes on the definition outlined by Snow, Soule and Kriesi (2004:11), who suggest that:

[S]ocial movements can be thought of as collectives acting with some degree of organisation and continuity outside of institutional or organisational channels for the purpose of challenging or defending extant authority, whether it is institutionally or culturally based, in the group, organisation, society, culture, or world order of which they are a part.

In allowing for the 'challenging or defending extant authority', this definition highlights an important shift in social movement theory in recent years. Traditionally, social movement literature has tended to classify social movements as collective challenges to institutional elites or other authorities by 'ordinary people'; those with limited institutional representation or political voice (Gamson, 1975:16-18; Tilly, 1979:12; 2004:3; Valocchi, 2010:79). By association, groups holding authoritative or prestigious positions in society would therefore generally be precluded from being characterised as participants or drivers of a 'movement' (Lindsay, 2008:64). Now, though, many authors embrace the possibility of elite-driven movements. Some demonstrate this through specific case studies, others simply by broadening the definition of a social movement to refer to a sustained collective effort against some opposing force, one which need not necessarily be elite, institutional, or authoritative (Duffy, Binder and Skrentny, 2010; Pettinicchio, 2012; Pichardo, 1995; Tarrow, 1994). A further broadening of such definitions has also occurred with the realisation that movements need not aim to produce change, as had been the working definition of theorists such as Blumer (1939) and Gusfield (1968). They can, instead, be set on bringing about or resisting change (Benford, Gongaware and Valadez, 2000; McAdam, 1982; McCarthy and Zald, 1977; Turner and Killian, 1957; Wilson, 1973; Zurcher and Snow, 1981).

For the popular understanding of MOOCs – which have been created by academics from some of the most elite universities in the world and, as such, cannot be regarded as entirely anti-elite or anti-institutional – these considerations are paramount. Instead of dismissing the notion that a social movement could stem from such prestigious ground, and therefore prioritising the political dimension of social movement creation, the focus can instead be placed, as it is here, on the social construction of such collectives and the motives, beliefs and actions of participants. Of greatest interest in this thesis, therefore, is not whether the MOOC movement is embedded in, or operating outside of, existing institutional channels, or even what its real intentions are with regards to producing or resisting change in higher education.

What matters is the presentation and perception of the MOOC movement from insiders and outsiders alike.

There are, of course, different ways of conceptualising the MOOC movement, just as there are different approaches to researching higher education. From the discourse surrounding MOOCs, a few different conceptions have been identified and are outlined as follows.

Knowledge movement

According to Eyerman and Jamison (1991:55) and Choudry (2009; 2011), all social movements are essentially ‘knowledge producers’ in that their very existence depends on their ability to create and disseminate new ideas and views, both within themselves and throughout broader society. Externally, the MOOC phenomenon can be viewed as a knowledge movement in two ways. The first interpretation is that it provides a newly-packaged, ‘unbundled’ kind of knowledge in the form of short, free, online courses. The second interpretation is that it provides new access to old forms of knowledge that were previously inaccessible to people unable to physically attend a university or afford to pay for a degree (Jacobs, 2012; Young, 2013c). Whether or not this unbundling of higher education is actually democratising higher education through the proliferation of knowledge, or actually creating two classes of knowledge, is another matter altogether (Andrews, 2013; Bear, 2013; Kolowich, 2013c; Miller, 2012; Mitchell, 2013; Sharma, 2013; Young, 2013a).

Economic movement

MOOCs are generally free to undertake or, in the cases where fees are charged for certificates of completion, require a small fee relative to the cost of degree-based higher education. While the initial costs to institutions wishing to make MOOCs may be high, the potential to recycle these courses over time, or license them to be used by other institutions, makes MOOCs a potentially lucrative investment. This is at least true for many of the elite universities currently creating MOOCs which demonstrate high user demand (Parry, 2013b). The prospect that MOOCs may be an effective cost-cutting exercise, delivering quality education content on a massive scale, without the physical infrastructure needed to accommodate learners on campus, also has appeal for higher education policymakers and university administrators. This is despite the fact that the financial viability of MOOCs has yet to be proven (Clarke, 2013; DeJong, 2013; Scott, 2013; Wallis, 2013). Even just the idea that MOOCs could be an economic movement

that makes higher education more affordable, both in terms of accessing and producing courses, has huge implications for prospective learners and society (Glance, 2013).

Technological movement

The MOOC phenomenon may also be deemed a result of recent technological developments, both in education and in society at large (Barber, Donnelly and Rizvi, 2013; Hammonds, 2013; Myers, 2011; Norton, 2013; Power, 2013). Just as the internet has been transforming the way people experience and gain access to music, television shows, movies and news content, there are those who believe that the technology of MOOCs is transforming the way people experience and perceive higher education (Gallagher and Garrett, 2013; Shirky, 2012). From this point of view, MOOCs may be termed a technological movement, one that seeks to use new online media technologies to instigate a change in higher education delivery.

Intellectual movement

Scientific or intellectual movements are defined as 'collective efforts to pursue research programs or projects for thought in the face of resistance from others in the scientific or intellectual community' (Frickel and Gross, 2005:204). The prospect of using MOOCs as a new pedagogical technique and a tool for researching online learning processes could see the MOOC phenomenon characterised as one such intellectual movement. From this perspective, the movement is driven by the academics willing to teach the MOOCs more so than the providers who host the courses on their respective websites. This characterisation does well to explain the opposition to MOOCs professed by some academics in the online media coverage surrounding MOOCs. According to such coverage, academic scepticism and criticism is largely centred on fears about job security, the quality of participants' learning experience, and the consequences of what massive numbers of participants may have with regards to socialisation. Opposition is not directed at research into how teaching and learning can be transformed per se, just the MOOC model for doing so (Jaschik, 2013; King, 2013; Manjikian, 2013; Rees, 2013; Yakabuski, 2013).

Structural movement

There remains vocal scepticism of the dramatic or long-lasting impact that MOOCs will have on brick-and-mortar universities (Baker, 2013; Beerkens, 2013; Creelman, 2013; Cuban, 2013; Kvan, 2013; Tammy, 2013; Tapson, 2013; Triana, 2013; Vernon, 2013;

Watters, 2013a). Some commentators maintain that MOOCs will forever change the higher education landscape, if not do away with universities altogether; that, because of MOOCs, the higher education system will never be the same again (Brooks, 2012; Cadwalladr, 2012; Harden, 2013; Hobson, 2013; Hu, 2013; Orgrizek, 2013; Springer, 2013; Thakker, 2013; The Economist, 2013). This view suggests that the MOOC movement may be a structural movement, currently in the process of fundamentally altering the institution of higher education we know today.

Fashion/fad

On the flipside to structural change is the idea that the MOOC phenomenon is simply the latest fad or fashion to emerge out of the interface between education and information technology. Such depictions cast MOOCs as the latest ‘craze’ or ‘mania’ which will likely fizzle out once it loses its novelty value (Boullier, 2012; Painter, 2013; Rivard, 2013a; Toyama, 2013). While the terms ‘fad’ and ‘fashion’ are often used interchangeably, there are some distinctions between the two. A fad can be conceived as ‘a non-traditional preoccupation by diffuse collectivities on a circumscribed object or process’; a preoccupation which is novel, spontaneous, rapidly spread, short-lived and non-recurring (Aguirre, Quarantelli and Mendoza, 1988:570). Fashions, by contrast, are patterns of behaviour that are innovations or elaborations on previous developments. They occur in cycles, with one fashion becoming increasingly popular before eventually being supplanted by another (Blumer, 1969:283; Marx and McAdam, 1994:45). The distinction of the MOOC phenomenon as either a potential fad or fashion depends on whether MOOCs are regarded as an entirely new development, or an innovation on what has already come to pass.

Though both of the terms ‘fad’ and ‘fashion’ may be used to diminish the perceived importance of the MOOC phenomenon, neither necessarily detract from the idea of it as a social movement. Fashions have certainly been placed under the banner of movements despite the fact that they appear to have little in common with some of the conventional ideas of what defines a movement. They do not involve recruitment, ideology, directive leadership, organisational tactics, or the division of labour. Nor do they have their own philosophy, culture or collective identity. Rather than being goal-oriented, both fads and fashions are more readily conceived as expressive forms of collective behaviour that depict innovation and, at some level, a desire for the creation of a new way of life (Blumer, 1951). This collective emphasis on innovation and change is what underpins the idea of fashions (and perhaps fads) as social movements. Such a

depiction may be best used for those who may be seen as 'participants' of the MOOC movement despite not explicitly identifying themselves as such.

Importantly, the MOOC phenomenon can be conceived as any and all of these kinds of movements, depending on who is asked about it and the kinds of questions posed. Some of these characterisations inevitably overlap, as MOOCs straddle a combination of social, technological, economic and educational domains. What is of greatest concern for this study is not the pinpointing of precisely what kind of movement the MOOC phenomenon represents, but whether there is, indeed, some kind of 'movement' that people actually identify with and that they are able to articulate their reasons behind any such affiliation. Reasons for lack of affiliation, or even belief in the very existence of the movement, are equally important for understanding the constitution of the MOOC movement. Whether or not the movement is living up to its intended goals, or being undermined by any unintended consequences, is a separate area of focus.

DIFFERENT LEVELS AND APPROACHES TO ANALYSIS

Aside from the varying conceptual categorisations, there are also three different levels at which the MOOC movement can be analysed. There is the institutional level (the university/organisation administrators who decide to create MOOCs), the professional level (the academics/field experts that teach MOOCs on behalf of the participating university/organisation), and the consumer level (the individual learners who enrol in MOOCs). The nature of any enquiry into understanding the MOOC movement will largely depend on which of these three areas is under analysis.

An organisational view of the MOOC movement

If wishing to examine the MOOC movement in terms of MOOC creators and their affiliation with MOOC providers, subsequent analyses would incorporate an organisational view of social movements. Drawing from both social movement literature and organisational theory, the emphasis of such an analysis would likely be on how both the universities (the established organisations) and the MOOC providers they are associated with (the emergent organisations) are structured. It would also emphasise how power is distributed, and how resources are mobilised to achieve set goals (della Porta and Diani, 2006:140; McAdam and Scott, 2005:6-13). From this perspective, the primary participants in the MOOC movement, from a higher education perspective, are the MOOC-creating universities (Bleiklie and Kogan, 2007; Gross, 1968; Perkins,

1972). As established and complex organisations (Peterson, 2007:147), participation by universities is assumed to be relatively fixed and at the aggregate level. A university's act of 'signing on' with a MOOC provider must, by nature of the bureaucracy through which universities operate, be based on a directive from the administrative powers that govern that university. Such a decision then filters down to others, who – by association as workers or students within that university – effectively become default participants in the movement without necessarily having any direct engagement or decision-making power. Essentially, under an organisational perspective, emphasis is on the structural aspects of engagement by universities and the administrators who control them.

A social constructionist view of the MOOC movement

While the organisational perspective provides a valid analytical approach to the study of the MOOC movement, an alternative would be to focus less on the structure *of* the movement and more on the social construction and interpretation *within* the movement. From this point of view, no issue underpinning a social movement is taken as a given 'problem', all are socially constructed as such (Hjelmar, 1996; Klandermans, 1992; Spector and Kitsuse, 1973). Though the constructionist view of social movements does take organisations into account, the main concern is the role that they play in establishing the meaning behind a social movement, rather than the structure and resources that comprise it. Emphasis is more on the emergent organisations (the MOOC providers championing the MOOC movement) than the existing ones that engage with them (the universities and other organisations delivering the MOOCs). This is because it is the emergent organisations that actually create and deliver messages that mobilise movement support.

However, just how and why people believe in and identify with the MOOC movement requires investigation beyond the goals and recruitment efforts of the MOOC providers. Though defined as collectives, without individuals such collectives would not exist. Indeed, according to the social constructionist perspective, precisely how groups of individuals construct a shared understanding of reality is fundamental to the very existence of a social movement. If there are various people who believe in, and claim membership to, a particular movement, then that movement legitimately 'exists'. To comprehend the social construction of a social movement, therefore, is to understand how participants 'see and interpret their world' (van Stekelenburg and Klandermans, 2009:19). Analysis of the motivations, attitudes and beliefs of individual actors also helps establish the very meaning behind a movement in the eyes of 'insiders'.

It provides a unique perspective based on lived-experience not achieved through the meaning-making efforts of organisations alone (Rucht and Neidhardt, 2002:9). For a really comprehensive social constructionist analysis of social movements, there needs to be an assessment of the meaning-making of the principal message-constructors (in this case, MOOC providers) *and* the message-receivers-cum-re-constructors (the MOOC users).

The location of meaning in this case is about getting to the heart of what drives identification and engagement with the MOOC movement. The main contemporary approaches to understanding engagement in social movements – resource mobilisation, political process and social construction – each highlight contrasting ideas about movement participation. Resource mobilisation theory, of which McCarthy and Zald (1973; 1977), Jenkins (1983) and Oberschall (1973) are considered some of the earliest promoters, tends to focus on *how* a movement emerges, *how* it is organised, and *how* it can be sustained over time (Mueller, 1992:3-4). As well as highlighting the structural conditions that are favourable or unfavourable to movement emergence, those operating within the resource mobilisation mindset emphasise the rational decision-making process people go through when weighing up the costs and benefits of movement participation (Klandermans, 1984; McCarthy and Zald, 1977:1213; Melucci, 1984:821). Theorists who adhere to the political process model, such as Tilly (1978; 1986), McAdam (1982) and Tarrow (1988; 1994), endorse a similarly structural perspective that emphasises the political opportunities conducive to social movement engagement. They look at the external environment of a movement, arguing that social movements are inherently political enterprises, and that their emergence and maintenance depends on the political and institutional context of a given place and time. Resource mobilisation theorists, by comparison, look at internal aspects of a movement, that is, the availability and organisation of resources within a movement that help it achieve its goal of endorsing or resisting change (van Stekelenburg and Klandermans, 2009:23-26).

In stark contrast to both of these structural approaches, social construction-minded theorists, who adopt more of a social psychological view of social movements, emphasise *why* people join or leave a movement, and *why* such a movement emerges in the first place (Klandermans, 1997:7; Polletta and Jasper, 2001:284). The main area of concern is what people's reasons are for believing in, and becoming involved with, a movement; intellectually, emotionally and culturally (van Stekelenburg and Klandermans, 2009:18-19).

In focusing on the social construction of the MOOC movement, the ‘why’ of participation is central to this thesis: *Why* do people believe that the MOOC movement exists (or not)? *Why* do they claim affiliation with it (or not)? Questions on the ‘how’ of movement participation are also important, but they are less to do with structural conditions, or the costs or benefits associated with participation, and more to do with the ‘how’ of cognitive behaviour. That is, *how* MOOCs and, in turn, the MOOC movement, are perceived, and *how* social interaction helps shape differences in interpretation and affiliation. In this respect, the ‘how’ questions of this thesis are also inherently social psychological. They point not only to the mental conceptualisation of certain issues, and thus the ‘meaning-making’ or construction of certain ‘MOOC realities’, but also to the behaviours that are both an influence on, and influenced by, such perceptions.

A SOCIAL CONSTRUCTIONIST ANALYSIS OF THE MOOC MOVEMENT AND ITS CULTURE

The growing popularity of the social constructionist approach to the study of social movements in recent decades has given greater prominence to the cultural and cognitive dimensions of social movement emergence and engagement (McAdam, 1994; Taylor and Whittier, 1995:163). As a reflection of the surge of cultural studies in social science more generally over the last 30 years, this strand of social movement scholarship highlights the role of emotions and symbolic communication in the assembly and articulation of group values and solidarity (della Porta and Diani, 2006:13-14; Mueller, 1992; Wuthnow, 1987:1-17). Such developments underpin the examination of the MOOC movement in this thesis and its emphasis on: (1) the construction of attitudes and ideas; (2) the establishment and maintenance of social ties; (3) the symbolic communication of group norms, boundaries and beliefs; and (4) the nature of social interaction as an expression of culture. While drawing on multiple sources for theoretical inspiration, the overarching guide for assessing the construction, culture and consequences of the MOOC movement in this thesis comes from Taylor and Whittier (1995). In using the gay and lesbian movement and the women’s movements as case studies, they draw on existing research examples to highlight the key conceptual dimensions for analysing the construction and culture of any social movement. These are: interpretive frameworks, emergent norms, collective identity, ritual and discourse. Rather than prioritise a particular dimension, this thesis uses all aspects in the one study to ensure that the MOOC movement is assessed in a holistic and in-depth manner.

Interpretive frameworks

The applications of framing to the field of social movements by Snow and Benford (1988; 1992; 2000), Johnston (1995), and Johnston and Noakes (2005) provide strong foundations from which to assess the way the MOOC movement is constructed by providers and, in turn, interpreted and reconstructed by users. All stem from Goffman's 1974 book *Frame Analysis*, which is credited with providing the basic conceptual understanding of frames adopted by sociologists today. For Goffman (1974:21), a frame is a 'schemata of interpretation', a means through which individuals can understand and make sense of the world around them. Snow and Benford (1988:137) elaborate on this, describing a frame as an 'interpretive schema that simplifies and condenses the world "out there" by selectively punctuating and encoding objects, situations, events, experiences and sequences of action.' Many of the scholarly efforts of Snow and his colleagues focus on framing as a strategic activity undertaken by social movement organisations to entice and mobilise participants. From this perspective, engagement in a movement is ultimately determined by how well the overarching conceptual framework ('master frame') adopted by a movement organisation aligns and resonates with the interests, beliefs and values of a given audience (Snow and Benford, 1992; Snow et al, 1986). As such, frame resonance is not about a shared sense of injustice, as Gamson (1992) proposes; it is about how meaning around issues is negotiated by the 'consistency' in the 'articulation' of a particular message, the 'credibility' of the messengers, and the 'centrality' of the message to the lives and experiences of its receivers (Snow and Benford, 1992:140-141). In this sense, framing is viewed primarily as a communicative activity; a process of deliberate messaging techniques on behalf of movement organisations.

For Johnston (1995), frames are primarily cognitive structures that are conveyed in collective cultural processes. They are 'problem-solving schemata, stored in memory, for the interpretive task of making sense of presenting situations', but articulated through discourse (Johnston, 1995:217). Essentially, they are mental structures with externalised expressions. In prioritising the framing activities of movement actors, this conceptualisation of Johnston's offers a slight departure from the Snow and Benford approach, which stresses the framing activities of organisations. It alludes to the work of Eyerman and Jamison (1991:4), who see social movements as 'forms of cognitive praxis' that are articulated in the language, action and interaction of movement participants. From their perspective, a social movement exists in the minds, behaviour and discourse of its constituents. So, it is through the framing, and subsequent

discussion, of certain issues and situations in certain ways (by social movement organisations) that such interpretations and expressions come about and give a social movement meaning to its affiliates.

The difference in these analytical perspectives points to what Snow (2007:387) identifies as two key understandings of frames; one that sees frames as ‘individual cognitive structures’, and another that sees frames as ‘properties of organisations, and thus located in their records, brochures, fliers, and placards rather than merely in the heads of individuals.’ This thesis combines both perspectives to provide a comprehensive review of framing by, and within, the MOOC movement. In following on from the categorisation of Johnston and Noakes (2005:12), there are three areas of focus: ‘the frame makers’ (MOOC providers), ‘the frame receivers’ (MOOC users) and ‘the frame itself’ (the collective representation of the MOOC movement as expressed by the common goals in the mission statements of MOOC providers). By assessing these three framing elements in combination, this thesis shows how MOOC providers have attempted to increase participation in the MOOC movement by presenting messages about MOOCs in particular ways, but also how these messages have evolved over time. Further assessment of individual interpretation and expression gives insight into how these strategic framing efforts have actually translated into the minds, culture and dialogue of MOOC users.

Emergent norms

Another dimension of movement culture presented in this thesis is that of emergent norms. In distinguishing social movements from isolated instances of collective behaviour, one of the most notable characteristics is the degree to which there are rules governing participant behaviour. Such rules work to establish a shared sense of identity and meaning, and help sustain enthusiasm for involvement with the collective over prolonged periods. In sociological terms, these rules are best understood as social norms, defined here as ‘an individual’s expectations (shared with others) of how others expect [them] to behave and of how others *will* behave in any given situation’ (Tajfel, 1981:36). The main difference between social movements and institutionalised activities in this regard is that such social norms are considered to be ‘new’, emerging out of the actions and interactions of movement actors, rather than established social conventions (Lemonik Arthur, 2013; Taylor and Whittier, 1995). A movement creates its own rules for what is considered appropriate behaviour by its constituents and, therefore, what is considered deviant.

Turner and Killian's (1957) discussion of emergent norms addresses this matter specifically. From their perspective, new ideas about what is appropriate behaviour in collectives, including social movements, 'constitute new products of the interaction in the particular situation' (Turner and Killian, 1957:83). Essentially, interaction in different situations produces different prescriptions for how people should act. Moreover, 'as a collectivity', they say, 'a movement is a group with indefinite and shifting membership' (Turner and Killian, 1957:308). As such, the people involved inevitably change as time passes. Because of this shifting membership, for a collective effort to become a legitimate movement requires the creation of rules to help govern behaviour and maintain order. This is what will ensure that a degree of continuity in identity can be maintained over the long haul, regardless of who is actually part of the collective at any given time.

Since norms promote consensus on the expectations regarding the attitudes, values and behaviour necessary for obtaining membership within a group or broader social system, they endorse the notion of conformity within social movements. Like other social systems, individuals can either adhere to the emergent norms of the existing membership base or deviate from them. Compliance with such behavioural standards or expectations enhances the likelihood of gaining acceptance into the broader collective, whereas deviance from these normative functions may result in alienation or punishment (Hogg, 1992:81-83; Turner and Killian, 1957:20-21). Importantly, it is precisely through engagement with those who deviate from the core of a social movement's membership base that new norms are both created and legitimated as a part of the movement's culture (Johnston and Klandermans, 1995:17). Basically, conflict with critics or people otherwise in opposition to the values, actions or ideas promoted within a particular movement tend to reinforce these aspects of the movement's culture rather than break them.

Within the social constructionist view of social movements, the likelihood of someone adhering to the normative practices of a movement relates directly back to how they perceive the movement and their place in it. Ultimately, it all comes down to how social actors frame the situation they are in, and whether such frames align with those of the dominant players in the movement (Taylor and Whittier, 1995). The stronger the degree of alignment, the higher the level of commitment to the movement and conformation to its norms (Klandermans, 1997:32-33). While for Taylor and Whittier, emergent and interpretive frameworks are inherently intertwined, in this thesis the two are assessed separately as distinct analytical components. By viewing the

prospect of emergent normative behaviour in isolation, there is an opportunity to see how the structure and operation of MOOCs affect the culture of the forums – and in turn, the MOOC movement – as well as how users develop their own standards of acceptable and deviant behaviour accordingly. The notion that norms emerge within movements is an essential consideration here, as often social movements are viewed only for their desire to transform the normative behaviours of existing society (della Porta and Diani, 2006:12-13). In actual fact, the norms that arise *within* a movement are shown to be equally enlightening. This is especially relevant considering the primary focus of this thesis is on the culture of those who identify with the MOOC movement, not those external to it.

Collective identity

Identity, in general terms, is understood as ‘who or what one is’ (Gecas, 2000:93). For social movement theorists, it is *collective* identity that is of greatest interest in this regard. It is also one of the key aspects of movement culture outlined in Taylor and Whittier’s (1995) analytical framework. Collective identity is often considered to be one of the main factors behind the motivation to participate in a movement, or at least claim affiliation with it. More generally, it is thought to explain why people unite around certain issues, and in certain places, but not others (Polletta and Jasper, 2001:284). Some theorists – such as Melucci (1988) and Stryker, Owens and White (2000) – consider collective identity as especially distinct from the related social psychological concept of social identity, defined as ‘that part of the individual’s self-concept which derives from [one’s] knowledge of [one’s] membership in a social group (or groups) together with the value and emotional significance attached to that membership’ (Tajfel, 1981:225). The distinction appears to rest on the idea that, for social identity, group membership is a prerequisite. Collective identity, while potentially established and promoted through group interaction, is not a requirement for participation in, or the emergence of, a social movement; it is something that may eventuate from it over time (della Porta and Diani, 2006:93; Melucci, 1996). This divergence is furthered by the definition offered by Polletta and Jasper (2001:285), which describes collective identity as: ‘an individual’s cognitive, moral, and emotional connection with a broader community, category, practice, or institution. It is a perception of a shared status or relation which may be imagined rather than experienced directly.’ Put another way, a sense of collective identity is one’s perception of attachment to a group or concept, real or imagined. Such perceived attachment may or may not have been developed through

social interaction. Social identity, however, is a reflection of the strength of attachment, and the significance of such attachment, to existing social relationships only. Echoing this sentiment, della Porta and Diani (2006:91-92) link the concept of identity to the perceptions of one's place in a collective:

In speaking of identity we are not referring to an autonomous object, nor to a property of social actors; we mean, rather, the process by which social actors recognise themselves – and are recognised by other actors – as part of broader groupings, and develop emotional attachments to them....These 'groupings' need not be defined in reference to specific social traits such as class, gender, ethnicity, sexual orientation, or the like, nor in reference to specific organisations (although they often get defined in those terms). Collective identities may also be based on shared orientations, values, attitudes, world-views, and lifestyles, as well as on shared experiences of action.

What matters most for the construction of a sense of collective identity, therefore, is that an individual actor perceives some sense of connection to a collective – a 'we' feeling – and that they are able to articulate this. As Taylor and Whittier (1995:173-174) note, it is through personal narrative and 'self-definitions' that individuals 'connect their experiences and explain their lives in terms of frames of meaning that are historically and contextually situated in movement communities.' Such an explanation reinforces the idea that collective identity, though potentially the result of interaction within a movement community, is best pronounced by the movement participants themselves. This harks back to Melucci's (1996:70-71) notion that, in addition to some degree of 'emotional investment', collective identity also has cognitive and relational aspects. It is thus reliant on individual perception and articulation – what Hunt and Benford call (1994) 'identity talk' – as well as social dynamics. According to Johnston, Laraña and Gusfield (1994:16), identity is 'both cognitively real – that is, based on lived experience and stored in memory – and idealised,' and that 'to partake in a collective identity means also doing (and not doing) certain things.' Essentially, 'doing (appropriate movement-related behaviours) and being (identity) are inextricably linked' (Johnston et al, 1994:17). So, too, then are collective identity and emergent norms.

In traversing this interplay between individual perception and social behaviour, this thesis presents a bifocal assessment of collective identity. It sees collective identity as a product of social interaction with members of a broader collective, but also the individual expression of one's attachment to such a collective. The interactive component is discussed in Chapters 7 and 8 in terms of user behaviour in official course forums. Emphasis is on how users present themselves in discussions, the tone of the language and specific words that they use, and their symbolic gestures towards one another (Taylor and Whittier, 1995:173). This provides a kind of collective

representation of ‘community’ within the MOOC movement, borne out of interactive experiences. The individualised narratives, presented in Chapter 5 and revisited in Chapter 8, are garnered from survey and focus group data. These provide personal expressions of users’ perceived status as an insider (or outsider) of the MOOC collective. Given that participation in MOOC forums is not a prerequisite for the majority of MOOCs, it is plausible that some people who believe in and identify with the MOOC movement never actually interact with other participants at all. Nonetheless, they still claim to feel part of a collective, which they also consider to be a social movement. This is where the notion of ‘real or imagined’ relationships presented by Polletta and Jasper (2001) comes into play. It is not essential for all affiliates of the MOOC movement to necessarily engage directly with one another for some kind of bond to form, or for some larger meaning to their participation in MOOCs to eventuate. What matters is that there is a collective sense from these users that they are part of something bigger than themselves, and that their individual narratives have some degree of overlap. Recognition of the ‘common differences’ among these users is also important as it leaves open the possibility that, even within movements, participants can have varying reasons for engaging and identifying with such a notion, or not (della Porta and Diani, 2006:98; Klandermans, 1997:3).

Another key consideration for understanding the collective identity of MOOC users is the creation and maintenance of social boundaries. This means the articulations and gestures which, through the interaction, ‘establish differences between a challenging group and dominant groups’ (Taylor and Whittier, 1995:173). As Taylor and Whittier (1992) note, it is through this kind of ‘boundary work’ that actors negotiate ideas about ‘us’ and ‘them’, and that a sense of ‘we-ness’ comes to the fore. To assess precisely how these boundaries are established and maintained requires analysis of ritualised behaviours.

Ritual

Taylor and Whittier (1995) present ritual as yet another aspect of movement construction and culture. Like other contemporary analyses of ritual, theirs stems from Durkheim’s proposal that ritual is fundamental to religion, and that religion is fundamental to establishing and maintaining moral order in communities. For Durkheim ([1912]1961:62), rituals are central to the very construction of communities in that, through belief in, and devotion to, sacred practices, there will be a uniting ‘into one single moral community...all those who adhere to them.’ Essentially, rituals are ‘the

rules of conduct which prescribe how a man should comport himself of the presence of these sacred objects' (Durkheim, [1912]1961:56). From this perspective, it is not hard to envisage a connection between ritual and norms. It is also not hard to see why the term ritual has historically had religious or superstitious connotations, wherein a 'sacred' object or being is required by definition. However, as theorists such as Goffman (1967), Wuthnow (1987), Bellah (2005), Knottnerus (2010), Collins (2004), Alexander (2006) and Bell (2009) have noted, the central characteristic of ritual is not the distinction between 'sacred' and 'profane' (Durkheim, [1912]1961), or even the 'primitive' and the 'civilised' (Hobsbawm, 1959). Instead, rituals can most easily be understood as dramatised, stylised patterns of behaviour that serve a symbolic communicative purpose. According to Rook's (1985:252) definition, a ritual is 'a type of expressive, symbolic activity constructed of multiple behaviours that occur in a fixed, episodic sequence, and that tend to be repeated over time.' What Goffman (1967) proposes is that ritual is actually at the very heart of everyday social interaction, and that all social encounters prescribe to the 'ritual organisation' (p. 45) of language, gesture and space, each of which embody certain symbolic meaning (p. 55-58). The social etiquette of salutations is just one example.

The reason why rituals form an integral part of social movement culture is exactly because of their symbolic function. They convey emotion and meaning to a group beyond spoken or written words to produce and reinforce solidarity (Staggenborg and Lang, 2007:178; Taylor and Whittier, 1995:176). It is via dramatised and patterned communicative devices or practices, which work to amplify key messages so as to prevent opportunities for misinterpretation, that social movements are able to reinforce a sense of collective identity and cohesion among constituents. Such words and acts also help maintain order by establishing in-group/out-group boundaries (Hausmann, Jonason and Summers-Effler, 2011:321; Staggenborg and Lang, 2007:178; Taylor and Whittier, 1995:175). By observing and engaging in symbolically patterned behaviours, the social norms established by a movement are accentuated, and members are thus obliged to act in accordance with them (Deacon, 1997:406). Hence, it is often through the examination of ritual behaviour that the normative principles governing a particular movement are made visible to outsiders (Bellah, 2005:189; Guibernau, 2013:98-99; Magolda, 2000:37).

Since norm-enforcing mechanisms help keep movement members 'in check', they require careful negotiation. 'While a commune with too lax rules might be invaded by free-riders, a too strict commune may be unpleasant for everyone' (Hugh-Jones and

Reinstein, 2012:479). At the very least, though, the aim must be to exclude those deemed unfit for membership, such as the ill-intentioned, the ill-informed, or the uncommitted (Guibernau, 2013:105-106; Hugh-Jones and Reinstein, 2012:479). This is because effective use of what Guibernau (2013) calls ‘exclusion rituals’ can work to reinforce the core collective. They are what separate the out-group from the in-group and, in turn, establish the in-group as a cohesive body through which the life and culture of a social movement can be sustained (further supported by other ‘inclusion rituals’). The study of ritual in the MOOC movement in this thesis rests on this inclusive/exclusive divide. More specifically, the emphasis is on the stylised patterns of behaviour that give the MOOC movement its emotional tone, promote engagement and solidarity among ‘included’ members, and exclude the ‘undesirables’ from obtaining ‘legitimate’ member status.

Discourse

The final element of Taylor and Whittier’s (1995) social movement analysis framework is discourse. In this thesis, discourse is taken to be the underlying feature of all the other analytical dimensions of movement construction and culture presented. It is the verbal expression of ideas and beliefs at the individual level, the nature of social relations and sense of solidarity or alienation at the interpersonal level, and the articulation of movement goals at the organisational level. Simply put, discourse is the use of language by movement actors and organisations to express themselves, recruit new members, and guide action.

Though not included as a discrete analytical or theoretical component, discourse is embedded in the application of Taylor and Whittier’s analytical framework throughout this thesis. As Wuthnow (1989:16) notes, ‘discourse subsumes the written as well as the verbal, the formal as well as the informal, the gestural or ritual as well as the conceptual.’ In this sense, discourse is fundamental, not only to understanding the ritual and expressive behaviour occurring at the participant level; it is also integral to an individual’s articulation of the MOOC movement and their place in it, as well as the construction of the MOOC movement’s goals by providers.

Different dimensions, different views of culture

Central to Taylor and Whittier’s (1995) framework is the understanding that social movements are both products and producers of culture, and that conceptualisations of culture can differ. Wuthnow (1987:7) is particularly adamant about the latter claim,

stating that 'for some, [culture] consists chiefly of beliefs and attitudes; for others, it represents an objectified ontological system'; anyone wishing to observe culture can therefore 'take any of a number of positions in between these extremes.' Analytical differences, Wuthnow (1987:11) claims, stem from whether culture is conceived in subjective, structural, dramaturgical or institutional terms, all of which are regarded as 'complementary rather than competing'. The *structural* approach to cultural analysis highlights the patterns and mechanisms that underpin the rules and relations that define a particular culture, whereas the *institutional* approach focuses on the perpetuation, codification and formalisation of such patterns by organised means (Wuthnow, 1987:13-15). While the institutional approach does not feature further in this thesis, the structural perspective does, but only in a summary assessment of MOOC movement culture at the broader macro level. Primarily, this thesis locates itself in the other two analytical perspectives: the *subjective* and the *dramaturgical*.

In reviewing culture from the subjective perspective, emphasis is on how individuals construct meaning by interpreting the world and their place in it. In this regard, 'culture consists less of an independent layer of reality than of one that has been internalised as part of the individual's worldview' (Wuthnow, 1987:11). Within Taylor and Whittier's analytical schema, the subjective view of culture encompasses the interpretative aspects of the MOOC movement's construction from the perspective of MOOC users (their conception of MOOCs and the prospect of the MOOC movement), as well as the identity dimension (how and why people claim affiliation, or lack thereof, with the MOOC movement). The fourth and last approach to analysing culture, the dramaturgical perspective, encompasses the remaining aspects of Taylor and Whittier's framework: emergent norms and ritual. This is how MOOC culture dictates symbolic expressions of social boundaries and maintains social equilibrium.

Though the dramaturgical approach is similar to the structural approach in that the foci of analysis are 'utterances, acts, objects and events' (Wuthnow, 1987:13), the intention and reading of such texts is different. Whereas the structural approach sees these texts in isolation, the dramaturgical approach sees them as a means of maintaining social order; a matter very important in terms of establishing the 'insiders' and 'outsiders' of a social movement. Like the structural approach, the dramaturgical approach also makes culture easily observable from an outsider's perspective. The subjective view, by contrast, requires first-hand accounts. This is precisely why multiple methods are used in this study of the MOOC movement. They allow for an assessment of alternative

dimensions of culture, but they also provide the necessary means to access this information. Ultimately, though, as Wuthnow (1987:17) notes, any form of cultural analysis is inherently interpretive as it requires the researcher to attach meaning to both subjective and symbolic expressions. Nonetheless, in all cases, effort must be made to be clear about how concepts are defined, applied and assessed to arrive at sound, empirically-grounded interpretations.

ANALYSING INTENDED VS. UNINTENDED CONSEQUENCES

One such matter for interpretation is the determination of the intended and unintended consequences of the MOOC movement. As Giugni (1998:374) and Oliver, Cadena-Roa and Strawn (2003) note, in the past, when looking at the success or failure of a social movement, analysts have tended to focus solely on whether or not the stated aims of the movement have been achieved. Attention has therefore traditionally been directed towards the *intended* consequences of social movements and the characteristics or factors conducive to success. More recently, theorists like Giugni (1998; 1999; 2008), Giugni, McAdam and Tilly (1999), Deng (1997) and Suh (2012) have sought to mark out *unintended* consequences as an emerging and much needed area of social movement scholarship. Studies in this latter vein highlight the various types of impact that social movements have in society, both external and internal to the movements themselves. The main agenda of such analyses is to look beyond the success or failure of a movement's explicit objectives (Giugni, 1998; 1999; 2008). As Suh (2012) notes, doing so is important, not least because 'unintended consequences produce no less significant socio-political and cultural impacts than the intended ones do.' What's more, according to Gran and Hein (2005:36), 'although only some movements achieve their goals... most movements produce unanticipated social change.' Such change can relate to the cultural or political consequences in society because *of* a movement's activities (Gelb and Hart, 1999; Giugni, 2008; Meyer, 1999; Rucht, 1999). Alternatively, unanticipated change can occur *within* a movement in relation to the identities, culture or biography of the movement's participants (McAdam, 1999; Taylor and Whittier, 1992).

Despite analyses of unintended consequences only being a relatively recent development in social movement scholarship, other areas of social enquiry have long understood the presence of such occurrences and the insights that may be gained from studying them. As Weber ([1919]1996:501) notes, 'it is undeniably true, indeed a fundamental truth of all history, that the final result of political activity often, nay,

regularly, bears very little relation to the original intention: often, indeed it is quite the opposite of what is intended.' One other more recent theorist who has long emphasised the importance of identifying such unintended consequences, and who is a guiding force of this thesis, is Boudon (1982). With the French education system as a case study, Boudon's understanding of unintended consequences builds on the work of Merton (1936:902), who says it is 'precisely because a particular action is not carried out in a psychological or social vacuum' that 'its effects will ramify into other spheres of value and interest.' For Boudon (1982:5), unintended consequences – what he terms 'perverse effects' – are the 'individual and collective effects that result from the juxtaposition of individual behaviours and yet were not included in the actors' explicit objectives.' Though not individual actors, social movements are motivated collective efforts to accomplish explicitly stated objectives. Therefore, they are applicable to Boudon's definition. To this end, any consequences contrary to, or beyond the scope of, the stated aims of a movement, as represented by the collective aims of key movement organisations, may be regarded as unintended consequences.

According to Boudon (1982:7), such unintended consequences may present themselves in several ways. Objectives can be achieved with some level of unwanted consequences. Alternatively, objectives can be achieved alongside additional benefits or advantages not explicitly sought. Another possible outcome is that objectives cannot be achieved, but some benefits or ill effects can occur nonetheless. Similar to Merton's (1949:51) idea of 'latent functions' and 'dysfunctions', Boudon (1982:5) believes that unintended consequences can be positive or negative, but that the most interesting and socially significant ones are those that appear undesirable and contradictory to explicit objectives; the truly 'perverse effects'. Such contradictory occurrences, he says, are ubiquitous in social life and are particularly apt for sociological investigation given their role in 'creating unwanted and often unexpected social imbalances' (Boudon, 1982:5).

While seeking to uncover undesirable impacts, this thesis also sheds light on the positive unintended consequences of MOOCs. These are considered equally valuable for understanding the potential impact and longevity of the MOOC movement. And, since the focus of this thesis is primarily on the MOOC users, the consequences of most interest here are therefore those in relation to the attitudes and experiences of these users. Following on from Gran and Hein's (2005:37) finding that there appears to be a link between unintended consequences and movement emergence, the thesis also examines the role that unintended consequences can play in the construction and culture of the MOOC movement, and vice versa. The analysis then concludes with the

identification of prospective impacts that all consequences – intended and unintended, positive and negative – may have on MOOC users, as well as the future prosperity of MOOCs, the MOOC movement, and the higher education landscape more broadly.

CHAPTER SUMMARY

After first locating the MOOC phenomenon within the sphere of social movement scholarship, and proposing possible depictions of the MOOC movement, this chapter has sought to clarify the theoretical perspectives underlying the empirical analysis of this thesis. The chief analytical objective is not to categorise the MOOC movement into a particular ‘type’, or to examine how it operates at an organisational level. Instead, the main mission is to determine whether the people who use MOOCs actually believe in and identify with the MOOC movement, and if so, why (or why not). In endeavouring to uncover this information, the thesis takes on a social constructionist approach to the analysis of social movements and, in particular, movement culture. Taylor and Whittier’s (1995) analytical framework is used as a guide for how to conduct such a study, with specific attention paid to the discursive activities underpinning the construction and expression of interpretative frameworks, emergent norms, collective identity, and ritual. When combined, these elements paint a picture of how the idea of the MOOC movement has emerged, but also how it may be sustained over time. They also underpin the subsequent assessment of the consequences of, and within, the MOOC movement in the remainder of this thesis, both in relation to explicit goals (intended consequences) and additional outcomes (unintended consequences). The research methods employed to conduct this investigation are outlined in the next chapter.

4. Research methods

In presenting an analysis of the construction, culture and consequences of the MOOC movement as espoused in the attitudes and behaviours of MOOC users and the goals of MOOC providers, this thesis adopts a mixed methods approach to social research. Known as the ‘third research paradigm’, the mixed methods approach dismisses previous notions that quantitative and qualitative methods are incompatible and instead considers them to be complementary, each with their own strengths and weaknesses in the pursuit of knowledge about human society. It is defined here as ‘the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study’ (Johnson and Onwuegbuzie, 2004:17). Its purpose: to create new knowledge of a given social phenomenon by viewing and analysing it from multiple perspectives (Johnson, Onwuegbuzie and Turner, 2007).

In adopting such an approach, this thesis is essentially an interpretive bricolage; a representation of the MOOC movement assembled from various methods, narratives and theories (Denzin and Lincoln, 2011). This kind of multi-method, multi-perspective strategy is supported by cultural and social movement analysts alike (Kellner, 1995:98-99; Klandermans, Staggenborg and Tarrow, 2002; Lichterman, 2002:139-141; Nelson, Treichler and Grossberg, 1992). According to Klandermans, Staggenborg and Tarrow (2002:315), novel social phenomena, like emerging social movements, are especially primed for diverse data collection and analytical strategies. This is because the nature of enquiry is largely exploratory. The advantages for any project, though, are two-fold. The first benefit of adopting a variety of research methods is that it can help improve data quality and verify findings (Andrews, Nonnecke and Preece, 2003:186; Burns, 2010; Denscombe, 2003:133-134; Jackson, 1983:40; Morse et al, 2002:17; Sieber, 1973; Vidich and Shapiro, 1955). Such ‘triangulation’ or data cross-checking is

particularly important because it helps to ensure that the interpretations made by the researcher are valid representations of the phenomenon or subject under study, rather than from any specific method (Campbell and Fiske, 1959; Creswell and Miller, 2000:126; Johnson et al, 2007; Kawulich, 2005). The second benefit is that a mixed-method approach to research can produce multiple lenses for interpreting and describing a particular phenomenon, thus leading to a richer and more comprehensive understanding of it (Denzin and Lincoln, 2011:5; Kellner, 1995:98; Markham, 2005). As Klandermans, Staggenborg and Tarrow (2002:331) suggest, promoting the use of both qualitative and quantitative methods encourages multi-layered data accumulation and, thus, the accentuation of alternative aspects of enquiry. In the case of this thesis, the combination of the qualitative elements (frame analysis, focus groups and participant observation) and the primarily quantitative element (the online survey) allows for illumination of the MOOC phenomenon at three different levels of analysis. These are the individual (micro) level, the interpersonal (meso) level, and the broader social (macro) level. This multi-level approach to investigation establishes a comprehensive understanding of the construction, culture and consequences of the MOOC movement. It pinpoints how MOOCs are framed by providers, as well as how they are interpreted and experienced by users. It also establishes how user behaviour is negotiated and challenged through interaction within official course discussion forums. Further still, it brings to light the social context of MOOCs to show how structural factors may influence users' understanding of the MOOC movement more broadly, both in terms of its existence and success.

FRAME ANALYSIS

To assess the representation of MOOCs by providers, this thesis has built on Johnston's (1995) method of frame analysis by way of micro-discourse analysis. According to this approach, the way social movement organisations have constructed a problem, proposed a solution, and sought to engage and mobilise participants, can all be analysed through the in-depth examination of isolated examples of written or verbal texts. This study has employed Johnston's method because it provided the clearest example of how to approach a text with frame analysis in mind, that is, for analysing specific and isolated instances of text for meaning and intent. It has been used together with the conceptual model proposed by Snow and Benford (1988), which emphasises the need to consider different types of frames: those that present a problem ('diagnostic' frame), those that

propose a solution ('prognostic' frame) and those that encourage people to get involved ('motivational' frame). An understanding of these different types of frames helps give structure to Johnston's emphasis on the need to unravel meaning and intent behind a text's construction, taking into account any non-verbal cues as well as the context of a text's appearance, including the goals of the speaker/author.

Though popular in contemporary social movement studies, frame analysis has long been criticised for lacking a clear methodology for how to identify and interpret framing mechanisms (Benford, 1997:411-412; Chesters and Welsh, 2006:15; Fisher, 1997). Like qualitative research generally, it has been dogged by the issue of researcher bias, specifically in the identification and interpretation of the views and intentions of the speaker/author. Johnston (1995:220-221) has himself recognised the shortcomings of frame analysis. However, what he proposed is that, by looking at the content and circumstance of specific texts in close detail, frame analysis can nonetheless be a rigorous research method into the construction of social movements, their causes, and their efforts to mobilise participants. The prime concern: the analysis needs to be conducted empirically and systematically.

The systematic approach to frame analysis in this thesis resides, chiefly, in the choice of texts, which were limited to the official websites of Coursera, edX and Udacity. As the public face of the MOOC movement, these were the tools that the organisations used to communicate their representation of MOOCs, state their goals, and attract participants. As such, they presented easily accessible, comparable and tangible sources of data through which to empirically assess the construction of the MOOC movement by providers. The findings from these 'online discursive activities', as Snow, Tan and Owens (2013:229) would term them, were also compared to the construction and culture of the movement at the user-level, obtained via focus groups, an online survey questionnaire and participant observation of official course forums. In all aspects of data collection, emphasis on the interpretation and experiences of MOOC users has been very important. It has taken the analysis beyond the assumption that movement participation equates to frame alignment. It has also emphasised the roles that both the movement organisation leaders *and* ordinary movement participants play in how a movement is created and perceived.

According to Benford (1997:412-422), this kind of dual focus is imperative to any frame analysis, and should feature in the study of framing in relation to social movements more generally. So, too, should an emphasis on framing as a dynamic process that occurs and evolves over time (Benford, 1997:417). Certainly, the

malleability of MOOC provider frames has been at the forefront of this study, with changes in mission statement messaging a key area of focus throughout the data collection period.

FOCUS GROUPS⁵

To gain preliminary insight into the attitudes and experiences of MOOC users, and to uncover potential new areas of emphasis for the research project outside of what had arisen in observations of the online commentary surrounding MOOCs prior to the empirical investigation taking place, two one-hour focus groups were held at the Australian National University (ANU) campus in August 2013. Conducted with approval from the university's Human Research Ethics Committee (HREC), the purpose of the focus groups was largely exploratory. Because the focus groups were simply a preliminary investigative exercise, the ease of access to research participants was a central requirement. This was to ensure that initial observations about MOOC users, to be used to inform future data collection processes, could be produced as quickly and efficiently as possible. In drawing on the entire ANU student community as a hub for prospective MOOC users from a range of disciplines and academic backgrounds, the goal was to recruit a wide array of focus group participants with varying views and experiences of MOOCs. This was intended to help generate enthusiastic dialogue, as per the suggestion of Barbour (2008:59) and Bloor et al (2001:20). Bloor et al (2001:20) also propose that high levels of diversity in a focus group can sometimes silence individuals, especially around sensitive topics. Given the innocuous topic of discussion around MOOCs, the prospect of having 'too much' diversity among participants was of little concern in this instance. The only concern was that participants had to be from the ANU (for ease of recruitment and HREC clearance) and they needed to have had first-hand experience with MOOCs.

Evidently, the broad criteria for participation did little to help recruit large numbers of people to take part in this preliminary investigation. Various efforts were made to try to boost numbers, including distributing posters on noticeboards across the ANU campus (see Appendix I), writing messages in ANU Facebook groups, and reaching out to students in each university department via department-specific student

⁵ Note that this section draws from information presented in 'How MOOCs can empower learners: a comparison of provider goals and user experiences' by E. Longstaff, 2015, *Journal of Further and Higher Education*, doi: 10.1080/0309877X.2015.1100715. Copyright 2015 UCU. The body text has been rewritten and included in this thesis with permission. The article published as the version of record in the *Journal of Further and Higher Education* can be found at <http://www.tandfonline.com/>.

email lists. Despite receiving limited responses to the recruitment drive, the aim was always to have at least enough participants to run legitimate focus groups by social research standards. According to Barbour (2008) and Bloor et al (2001), this required each group to be comprised of three or more people. In all, 20 people expressed interest in assisting with the research project, 14 of which then said they would be happy attending a focus group once secondary contact was made. Based on this response, it was determined that two focus groups would be conducted to allow for comparison and to accommodate any late expressions of interest. Out of all of those who said they would like to attend a focus group, in the end, only eight of them actually came. These eight were divided across two groups – one consisting of five people and the other of three. Each group was comprised of both male and female participants across science and non-science disciplines, both in terms of the MOOCs they were taking, and their own education background. Levels of education varied across the groups. The first group contained one postgraduate student, three undergraduate students, and one member of staff (who only stayed for the first few minutes because of a previous personal engagement).⁶ In the second group, all three participants were postgraduate students. The makeup of these groups was the result of trying to balance the nominated availability of participants and the desire for diversity in group composition.

To accommodate each group's focus group session, a room was booked for two separate three-hour blocks on Tuesday the 27th of August and Thursday the 29th of August. Participants were informed via email as to their allocated group and start time. They were also emailed with a reminder the day before each scheduled session. The three-hour booking was deliberate to allow time to set up and tidy the venue before and after the discussion, as well as allow for a shift in time, should the availability of any participants change. The specific dates were chosen because they were still during the regular semester period, meaning that students were more likely to be on campus grounds and thus travel concerns would be minimised. The room to host both group sessions was chosen on the basis that it was a standard classroom that could easily be reconfigured to aid discussion (i.e. no computers) and because it was easily accessible (i.e. ground floor). Upon arrival, participants were supplied with information sheets that highlighted the nature of the research project (See Appendix I). The information provided was detailed enough as to offer a clear picture of what the project was about, but vague enough not to influence participants as to the kind of information being sought. Forms detailing each person's consent and requesting some brief background information were also collected

⁶ Note that the ANU staff member was participating in the focus groups as a MOOC user, not creator.

prior to the discussions taking place (see Appendix I). Participants were then given cupcakes and biscuits (including gluten-free, dairy-free and nut-free options, so as to be as inclusive as possible to dietary needs) to thank them for their time.

Conversations among both focus groups were intentionally unstructured to encourage participants to discuss whatever they felt was most important or relevant to their own experience (Morgan, 1996:144-145; 2002). Such a loosely-structured approach to focus groups is said to produce richer insights into the attitudes and interactions among participants than may otherwise be achieved through a highly structured survey or interview, where the topics under discussion are fixed rather than fluid (Bertrand, Brown and Ward, 1992:199; Carey and Smith, 1994:124; Morgan, 1996:139). The only structure to the focus groups sessions was a topic guide held by me, the focus group facilitator. It was intended as a means to help stimulate discussion between participants should their engagement diminish, or to redirect their attention should the conversation go off-topic for sustained periods. The themes of the topic guide were: (1) understanding of MOOCs and identification with the MOOC movement; (2) motivation for, and experience of, participation in MOOCs; and (3) similarities and differences between MOOCs and more traditional avenues for obtaining higher education. The emphasis on these themes was designed to get users to reflect and debate widely on the topics raised in the online media coverage of MOOCs at the time. These included the quality and promises of MOOCs, the importance of 'place' in relation to university campus versus 'anywhere, anytime' learning online, and the perceived value of MOOCs, personally and professionally. To provoke discussion on these issues, two short videos were shown to participants on an iPad. One was a three-minute promotional video titled 'Revolutionising Education on Campuses and Worldwide', made by edX (2012). This video made several references to edX creating a 'revolution' in higher education and that people should 'join the movement'. The second video was a one-minute snippet of Microsoft founder Bill Gates, a vocal supporter of MOOCs, speaking at the 2013 Duin & Kruidberg Conference about why previous online education platforms have failed to generate widespread support in the past, and why MOOCs may also be doomed to fail (Association of Universities in the Netherlands, 2013).

'Member checking' was conducted throughout both sessions to make sure that comments made by participants were understood by everyone present (Creswell and Miller, 2000:127). For instance, occasionally – so as not to control the discussion – participants' comments were repeated back, or accompanied by follow-up questions.

This was done to clarify the intended message of the speaker where necessary (Grimshaw, 2008:756). The discussions throughout both group sessions were also taped using a portable recording device, placed at an equal distance between participants, who were seated in a circle to encourage dialogue and enhance the quality of the subsequent audio recordings. The recorded discussions were then replayed at a later date and typed out manually on a computer, with only minor verbal stammers removed to alleviate unnecessary disruption to the text. In the 12 hours it took to transcribe both group's discussions, all participants' names were replaced with pseudonyms to maintain confidentiality. The resulting transcripts were then assessed for common topics raised in and between both groups. Their discussions were also examined in terms of how participants interacted with one another in the evolution of discussion in order to reach (or fail to reach) consensus on certain issues. For the purposes of this study, consensus was identified via verbal cues of agreement (such as 'mm', 'yes', 'yeah') when participants were listening to each other talk.

ONLINE SURVEY

Following the completion of the focus groups, an online questionnaire was developed to survey the attitudes and experiences of MOOC users more broadly – that is, among the general MOOC populace rather than just the users attending the ANU – and to identify how well these user responses aligned with provider goals. The focus groups provided a strong basis from which to develop the survey questionnaire that, due to the online nature of MOOCs, was delivered online. This web-based delivery method meant that prospective research subjects could be asked to participate in the study directly from their 'natural environment'. It also meant that research costs could be kept to a minimum, and that the global nature of MOOC participation could be easily captured to produce a diverse and rich dataset (Andrews et al, 2003:194; Couper, 2000:464-465; Evans and Mathur, 2005:196; Hayslett and Wildemuth, 2004; Neuman, 2006:302; Tourangeau, Conrad and Couper, 2013:152; Van Selin and Jankowski, 2006:450; Wright, 2005).

Generally, surveys can be divided into two categories: those based on probability samples and those based on non-probability samples. The former is generalisable to the broader population while the latter is not (Fan and Yan, 2010:134). Web-based surveys, if incorporating a random sampling technique, can be considered probability samples, according to Tourangeau, Conrad and Couper (2013:12). Such

random sampling mechanisms, though, are generally difficult to establish in web surveys as the nature of online access tends to be fairly open and respondents tend to be self-selecting (Kaye and Johnson, 1999:326; Smith, 2006; Tourangeau et al, 2013:151-152). That said, not all non-probability surveys are the same, and some may be more unrestricted than others. Sampling may be 'purposive', that is, it may be designed to be representative of a subpopulation rather than the total population (Kaye and Johnson, 1999:326). This means the way in which survey participants are recruited may be systematic in that the pool of prospective participants is limited to, and obtained from, users of specific websites. In this sense, a purposive survey is not unlike Tourangeau, Conrad and Couper's (2013:12) notion of an 'intercept survey'.

The online survey created for this study has been regarded as a 'restricted self-selected survey'; more specific than Tourangeau, Conrad and Couper's (2013:12) 'unrestricted self-selected survey' but still a non-probability sample.⁷ Participants were not specifically selected, but they were not entirely unrestricted either (Van Selm and Jankowski, 2006:440). The intention was to advertise the survey solely on selected MOOC forums, similar to Andrews, Nonnecke and Preece's (2003:203) online recruitment method. This meant that invitations to participate were only directed to the people enrolled in particular courses. Regardless of the precise probability/non-probability distinction, the main objective of the survey was to produce data representative of those who actually completed the questionnaire (Rea and Parker, 1992:15; Tourangeau et al, 2013). Basically, the questionnaire had to deliver a snapshot of participating MOOC users at a particular point in time; it was not supposed to be representative of all MOOC users at all times.

Development and delivery of the questionnaire

After the final questionnaire was created and tested, and the ANU HREC granted approval for it to be run online, it was posted to official MOOC forums. All that was needed to access these forums was a valid email address to enrol in courses.⁸ Once course enrolment took place, and access to forums was gained, the objective was to recruit as highly diverse a group of survey participants as possible, both in terms of

⁷ Given that there is no definitive way to tell how many users make up any one MOOC at any one time, because enrolment remains open and the number of active users fluctuates over time, there is no way of knowing the specific total number of active and non-active users. As such, only a targeted non-probability sampling technique is possible for a study of MOOC users such as this.

⁸ When a person enrolls, they are asked about their intentions for participation. To ensure that outsider presence in such courses would not sway the official data collection by course providers, if asked about motivations to participate, and, specifically, intention to complete MOOC assessment items, the answer provided was always that participation was exploratory.

MOOC subject matter (physical sciences and technology, as well as social sciences and humanities) and in the type and location of organisations delivering the courses. The initial intention was to analyse an equal number of courses from each provider. However, once it was shown that forum participation levels were extremely low relative to the purported number of enrolments in each MOOC (often in the tens of thousands), the recruitment strategy was revised. The renewed objective was to enrol in as many courses as possible in order to entice the largest number of participants to the survey. The courses to which the survey invitation was ultimately displayed were chosen on the basis of the abovementioned diversity criteria, as well as their availability. Only courses running at the time of the active survey period (June to October 2014) could be included, along with a few others that were ongoing and did not have a set schedule. Across all three providers, delivery of the invitation to participate varied slightly. Some course instructors announced the survey on the course homepage. In most cases, though, invitations were posted directly to the course forums in the general discussion threads. Sometimes instructors also indicated their support for the survey on these discussion threads, while at other times they remained absent from the discussions entirely. If no general discussion thread existed, and instructors declined to share the invitation on the study's behalf, such classes were excluded from the pool of courses to be surveyed. For the sake of comprehension and consistency, only courses in English were included in the study.

By the end of the 120-day survey period, which was deemed a sufficient balance between the time needed to attract a large number of survey respondents and the time required to clean, code and analyse the data resulting from such respondents, invitations to participate had been posted to 172 courses across the three MOOC websites (see Appendix II). The distribution of courses included is outlined in Table 4.1. The largest proportion came from Coursera because it was the largest provider with the largest number of courses on offer, and thus, presented the greatest opportunity to recruit research participants.

Table 4.1 Summary of survey recruitment by MOOC provider

MOOC provider	No. of courses where survey invitation was posted	No. of different organisations delivering the courses where survey invitations were posted
Coursera	77	43
edX	46	23
Udacity	49	13
TOTAL	172	79

As the focus group recruitment effort and subsequent discussions revealed that not all MOOC users were familiar with the term 'MOOC', the questionnaire specifically referred to 'open online courses' to mitigate any risk of confusion. With functionality a prime objective, the survey was run on the ANU's APOLLO online questionnaire system, customisable and endorsed by the university and designed to be 'browser and platform independent' (Australian National University, 2008:3). The appearance of the actual questionnaire drew on established criteria for successful surveys (de Vaus, 2002:110-116; Dillman, Smyth and Christian, 2007:157-230; Gunn, 2002; Rea and Parker, 1992:44-55; Van Selm and Jankowski, 2006:441-442). In accordance with these criteria, questions were grouped according to themes to ensure that the survey had a logical flow. The survey was also designed to be as short as possible to limit respondent fatigue, while also gathering as much in-depth information as was feasible (see Appendix III for a copy of the questionnaire).

To help set the tone for the survey, and to encourage reflection, respondents were first asked to write what they felt about their overall experience of open online courses. Questions on age and sex were included next, so that if respondents did not complete the demographic section towards the end of the survey (which asked for educational background, occupation, country of birth and country of residence), there would at least be some demographic information to characterise individuals. The remaining sections were specifically designed to address the goals of the MOOC movement – as expressed by the collective aims of edX, Coursera and Udacity – as well as any attitudes and experiences beyond these goals. These sections were categorised under the following areas: (1) participation: respondents' notion and experience of 'anywhere, anytime' learning, community, and interactivity; (2) motivation and performance: respondents' feelings about the impacts and value of educational resources that are low cost, high prestige, but generally produce no academic credit; (3) perception: respondents' feelings of empowerment and identity as MOOC users, as well as their broader understanding of MOOCs and provider organisations; (4) background information: respondents' individual characteristics; and (5) general attitudes.

In all, the variables included in the questionnaire were intended to generate data on demographics (who MOOC users are), behaviours (what MOOC users do), beliefs (what MOOC users regard as true or false), and attitudes (what MOOC users regard as desirable or undesirable). To ensure that the questions generated data that were both in-depth and comparable, the questionnaire primarily adopted a closed-ended question

format, but with an option for additional open-ended responses from participants through the use of text boxes (Rea and Parker, 1992:39-44). Scales were also included where it was necessary to gauge frequency of behaviours, as well as both the direction of attitudes/beliefs and the intensity of such views (de Vaus, 2002:96).

Adhering to the principles of de Vaus (2002:96-109) and Dillman et al (2007:79-89), the survey was designed to be as straightforward, balanced and concise as possible so that questions could be conveyed effectively to respondents and that the information gathered was both valid and relevant. To help ensure that this was the case, prior to going live, the questionnaire was piloted with the focus group participants (recontacted afterwards to provide invaluable feedback within a short time frame) to examine its clarity, comprehensiveness and acceptability among MOOC users (Rea and Parker, 1992:35-36). The pilot respondents indicated that the survey was interesting and straightforward, with only minor amendments required before the final questionnaire could go live and the recruitment of participants in MOOC forums could begin.

Prior to the survey going live, it was also acknowledged that, in the past, people have opted to participate in online surveys for all sorts of reasons. Some have chosen to participate because they have thought a topic was interesting. Others have simply seen benefits in participation that outweighed any costs (of engaging or abstaining), or because they felt some social or formal obligation to the researcher or subject matter. Whatever the motives of participants in this particular study, all efforts were made to maximise the recruitment of MOOC users (Dillman, 1991; Fan and Yan, 2010:136; Groves, Cialdini and Couper, 1992). One deliberate strategy was to have the questionnaire hosted on the ANU's APOLLO platform (see Appendix I). Aside from being a functional and available tool, the platform's official association with the ANU brand (including the university logo) was very important for boosting participation. This is because research has shown that surveys sponsored by academic or government bodies tend to be viewed as more legitimate, and thus attract more respondents, than commercially-produced surveys (Walston, Lissitz and Rudner, 2006:273). Similar strategies for boosting participant trust adopted in this study included the provision of information about the survey's research objectives and data usage, minimal requests for personal information, as well as an up-front estimate of the time needed for questionnaire completion (Dillman et al, 2007:23-25; Groves, Presser and Dipko, 2004:25; Kaye and Johnson, 1999:332; Rea and Parker, 1992:56-79; Van Selm and Jankowski, 2006:453; Wright, 2005). Based on the advice of the pilot study group, prospective participants were told that the questionnaire should take between 10-15

minutes to complete. This estimate was later revised to 10-30 minutes as a result of subsequent respondent feedback.

Data cleaning, coding and analysis

At the close of the survey, APOLLO returned 2,203 records, 2,191 of which were deemed suitable for analysis. The 12 records removed as being unsuitable for analysis were identified as either 'nuisance' responders (people who clearly deliberately answered questions incorrectly in an effort to undermine the integrity of the dataset) or consistent non-responders (people who only answered one or two questions and so could not be compared to others in a meaningful way). Once these 12 records were removed from the raw data file, responses to all variables were reviewed and coded into new variables where necessary. Respondents' country of birth and residence were coded in accordance with the United Nations geoscheme classification of countries, resulting in three different variables. One of them sorted countries by geographic region (coded as 1 = North America, 2 = Europe, 3 = Asia, 4 = Oceania, 5 = Latin America and the Caribbean, 6 = Africa), another sorted countries by regional development (coded as 1 = Developing regions, 2 = Developed regions), the last sorted countries by relative level of development (coded as 1 = World's least developed countries, 2 = Remaining countries). Sex was coded as 1 = Male and 2 = Female. Though the survey collected three sex categories, to incorporate those who did not identify as either male or female, only 8 (0.4%) respondents actually identified as an alternative category. As such, this category could not be compared with other variables in a meaningful way, and so it was ultimately subsumed into the 'missing data' category, which incorporated all respondents for whom neither male nor female sex was stated. Qualification was coded in accordance with the International Standard Classification of Education (UNESCO, 2012), with 'post-secondary non-tertiary education' and 'short-cycle tertiary education' combined into a single category: 'vocational/technical diploma or certificate' (see Appendix VII for specific codes used). In other instances, variables were coded to form new composite scales to assess more complex concepts pertaining to MOOC provider goals as single measures.

The first of these complex concepts was empowerment, understood here as the ability and autonomy to make and act on decisions to produce a desired result; the achievement of which rests on perceptions of choice, control and influence of resources to affect such outcomes (Alsop, Bertelsen and Holland, 2006:1; Bartlett, 2004:4; Malhotra, Schuler and Boender, 2002:5; Narayan, 2005:4-5; Welzel, 2013:7). In

assessing respondents' perceptions of empowerment from MOOCs, the survey posed different questions to represent four established dimensions of empowerment more generally: political, economic, social and psychological (Narayan, 2005). A fifth question for educational empowerment was also included, as the main message from MOOC providers was that they wanted to provide people with more choice and control over their education. Once the survey was closed, these five survey items were assessed for their relatedness, that is, the likelihood that they measured the same underlying concept of empowerment and, therefore, whether they could be combined into a single scale. The SPSS test for reliability showed good internal consistency, returning a Cronbach's alpha coefficient of .704. This consistency was tested further via principal components analysis, for which the items were deemed suitable after having reported most correlation coefficients at .300 or above, a Kaiser-Meyer-Olkin value above the recommended minimum of .600 (the observed value was .741), and statistical significance for Bartlett's Test of Sphericity (Pallant, 2013:207). Principal components analysis extracted one component with an eigenvalue exceeding 1, and was shown to explain 46% of the variance. The scree plot confirmed that there was a definite breakaway at the second component, giving further weight to the idea that the five variables were measuring a single underlying concept. The component matrix also showed that all five items related strongly to the one component, each scoring between .605 and .720. With internal consistency confirmed, the composite sense of empowerment scale was developed using all of the five intended survey items.

As with empowerment, the survey also included a variety of questions to assess the complex concept of 'connection', taken to pertain to a mixture of sense of community and group identity and compiled here into a singular measure called 'sense of connection'. The five survey items designed to assess the sense of community component were adapted from the 24-item Sense of Community Index II (Chavis, Lee and Acosta, 2008). A further eight items designed to assess the group identity component were adapted from Mael and Tetrick's (1992) 10-item Identification with a Psychological Group scale. Though together, these two established indexes have 34 items between them, only 13 questions were incorporated into the questionnaire. This was down to a desire to balance the robustness of the original indexes with prospect of respondent fatigue. The questions that were ultimately included asked respondents to rank the degree to which they:

1. Felt a strong connection to other MOOC participants.

2. Felt like part of a learning community with MOOCs.
3. Helped other MOOC users to achieve their learning goals and expected similar help in return.
4. Influenced others.
5. Interacted with other users compared with course content.

Respondents were also asked to state whether they strongly agreed, agreed, disagreed or strongly disagreed to each of these statements:

6. 'When talking about participants of open online courses, I refer to WE rather than THEY'.
7. 'I take criticism of open online courses as a personal insult'.
8. 'I feel comfortable interacting with other online course participants'.
9. 'I feel an obligation to assist fellow online course participants when they ask for help'.
10. 'I'm not just an individual learner; I'm part of a cohort'.
11. 'The success of other online course participants makes me feel good'.
12. 'I have the same goals as other online course participants'.
13. 'The relationships I have with other online course participants are very rewarding'.

As with the empowerment survey items, the internal consistency of these 13 variables was assessed using SPSS's test for reliability. The test showed that, overall, the items were very highly related ($\alpha = .825$) but that two items ('I take criticism of open online courses as a personal insult' and 'I have the same goals as other online participants') had low inter-correlations with the other items. With this in mind, these two items were removed, thereby increasing the overall consistency of the 11-item scale ($\alpha = .896$). The removal of the two items was further supported by principal components analysis, in which analysis of the full 13 items extracted two components with eigenvalues above 1, suggesting two underlying concepts being measured across the 13 items. The 11-item grouping, by contrast, extracted one component, thereby suggesting unidimensional measurement. The scree plot confirmed a distinct break at the second component of the 11-item grouping, supporting the notion that the 11 items were measuring the same underlying concept. The component matrix also showed that all 11 items were strongly weighted to one component, each scoring between .564 and .788, together explaining 49% of the variance. With internal consistency confirmed, a

composite scale measuring sense of connection was then compiled from the 11 sense of community and group identification items. This composite scale, along with the composite empowerment scale, formed the basis for the analysis into sense of connection and sense of empowerment using the online survey data, assessed through correlation and standard linear regression. Further information on the coding and construction of the survey variables used in analysis has been included in Appendix VII to IX.

PARTICIPANT OBSERVATION THROUGH ‘NETOGRAPHY’

Given the ease of access to MOOCs, and thus the research subjects for this study, it made sense to take full advantage of the opportunity to study MOOCs ‘from the inside’ as an enrolled user. As well as providing a means to recruit survey participants through the course forums, having the privileges of ‘insider’ status also allowed for participant observation of the interactions between MOOC users.

Participant observation is the hallmark of ethnographic studies pertaining to the examination and ‘sharing’ of events and activities that occur within a group in its natural setting (Jackson, 1983:39; Kawulich, 2005). The aim of participant observation is to provide a comprehensive picture of a particular community or phenomenon which can, in turn, be used to validate or expand on data obtained by other methods (DeWalt and DeWalt, 2002; Jackson, 1983:41; Kawulich, 2005). ‘Netography’, or ‘ethnography on the internet’, is an increasingly prevalent avenue for participant observation in which the community of interest is one that exists and interacts online (Kozinets, 2002:62). As with any other form of participant observation, the role of the researcher undertaking ‘netography’ can vary. There are two main issues to consider in this regard, each of which will determine the nature of the information obtained. The first issue is whether the researcher intends to make his or her research subjects aware that they are being studied by someone within the confines of their community, and how such awareness might affect their behaviour and attitudes. The second issue concerns the degree to which the researcher emphasises their own participation in the process of observation, and how such activities may impede or enhance the phenomena under study (Kawulich, 2005; Schwartz and Schwartz, 1955:344).

Rather than promoting an ‘active’ participant observer role, in which interaction with the observed is part of the data collection process, this study has adopted a ‘passive’ participant observer approach, whereby any interaction from the researcher

was regarded as potentially disruptive to the natural environment and therefore discouraged (Schwartz and Schwartz, 1955:347-349). The only researcher engagement on forums was the posting of the invitation to the survey, as well as the occasional responses to questions about the nature of the research project and feedback on the questionnaire. In this sense, the term 'participant' has been chiefly made in reference to the enrolment status of the observer, as only by enrolling as an official participant of MOOCs could one gain access to the official MOOC discussion forums. However, because the deliberately observational nature of this enrolment was not made known to other MOOC users, this study could also be described as having employed a 'complete observer' approach to field research, in which the 'participant' status of the researcher has been applied rather loosely (Neuman, 2006:387).

Whatever the precise terminology attributed to its performer, the act of observing the official forums occurred concurrent to the posting of the survey invitation. All courses considered for the survey were examined, including those for which the survey posting was denied by course instructors or not otherwise posted due to lack of an appropriate setting (such as those that had strict course content-only policies and/or no general discussion threads). This is why the number of courses observed (outlined in Table 4.2) was greater than the number of courses surveyed.

For the purposes of recording observations, notable discussion threads were copied directly to separate Microsoft Word documents for each MOOC. These were then reviewed for common themes in interaction after data collection had ceased. To safeguard the accuracy of information, the Word documents included exact quotes, as well as the recorded dates and sources of the quotes.

Table 4.2 Summary of participant observation by MOOC provider

Provider	No. of courses where forums were observed	No. of different organisations delivering the courses
Coursera	94	47
edX	56	26
Udacity	49	13
TOTAL	199	86

To protect the identities of Coursera and edX users, all names have been stripped from the direct quotes presented in this thesis (Schensul, Schensul and LeCompte, 1999:119). This use of direct, de-identified quotes from user forum posts is in accordance with Coursera and edX's terms at the time the participant observation – from which such

quotes were obtained – took place. Both providers stipulated that user content generated by forum activity was considered public and not owned by the users themselves. The edX ‘Terms of Service’ specifically said: ‘By submitting or distributing your User Postings, you hereby grant to each user of the Site a non-exclusive licence to access and use your User Postings in connection with their use of the Site for their own personal purposes’ (edX, 2013d). In the ‘Permission to Use Materials’ section of Coursera’s ‘Terms of Use’ (2014b), limitations were only specified on the use of copyrighted course content (e.g. ‘code, images, text, layouts, arrangements, displays, illustrations, audio and video clips’). It was stated that, as long as users abided by the provider’s terms and conditions not to harm or threaten its users or its website, then:

Coursera grants you a personal, non-exclusive, non-transferable licence to access and use the Sites. You may download material from the Sites only for your own personal, non-commercial use. You may not otherwise copy, reproduce, retransmit, distribute, publish, commercially exploit or otherwise transfer any material, nor may you modify or create derivatives works of the material. The burden of determining that your use of any information, software or any other content on the Site is permissible rests with you (Coursera, 2014b).

This statement was made with specific reference to Coursera’s course content. In the section on ‘User Material Submission’, which talked about actual user posts to Coursera’s discussion forums (dubbed ‘User Content’), it only mentioned that:

You grant Coursera and the Participating institutions a fully transferable, worldwide, perpetual, royalty-free and non-exclusive licence to use, distribute, sublicense, reproduce, modify, adapt, publicly perform and publicly display such User Content (Coursera, 2014b).

It did not say that other users could not do the same so long as they abided by the code of conduct and used such information for non-commercial purposes only. Udacity’s ‘Terms of Service’, on the other hand, specified that:

Udacity does not claim ownership of any User Content you may submit or make available for inclusion on the Class Sites or Online Courses. Accordingly...[the] User will be the sole and exclusive owner of any and all rights, title and interest in and to the User Content’ (Udacity, 2013b).

It went on to say that ‘Udacity has the right to use, reproduce, modify, adapt, publicly perform and publicly display such User Content... for any purpose (including for any commercial purpose)’ and that ‘all communications methods [in the course] constitute public, and not private, means of communication between you and the other party or parties’ (Udacity, 2013b). Even though communication was considered public, given that Udacity explicitly specified that users have copyright over their posts, all quotes

obtained from the observation of Udacity's forums have been paraphrased in the chapters of this thesis that discuss user data.

ETHICAL CONSIDERATIONS

Each aspect of the empirical investigation conducted for this study has required careful consideration of potential ethical issues, particularly around the consent of research participants. As already mentioned, members of the focus groups were provided with printed information sheets and consent forms to be signed prior to the commencement of each session. Participants were advised of the goal of the focus groups, which were in accordance with the main goal of the overarching research project: to examine the attitudes, behaviours and first-hand experiences of people who have participated in a MOOC in comparison with the stated aims of MOOC providers. Participants were also informed that their conversation would be recorded and that they could leave at any time, but that their comments recorded up until that point would remain as part of the study. Respondents to the online survey were provided with a similar, albeit abbreviated, information-consent form at the start of the survey. The main difference was that the APOLLO interface imposed certain restrictions, namely that the text on the opening page be limited to just 1,024 characters (including spaces). As it was not feasible to attach a link to an external information page, the information statement and consents form had to be combined and refined to fit within the parameters of APOLLO (see Appendix I). This meant that there had to be a balance with brevity and informational content. While all effort was made to include as much information as possible, multiple contact details were included on the APOLLO site to ensure that any additional concerns about the project could be addressed. The participant observation component of this study, by contrast, was based on covert methods. This meant that permission to study the interactions of MOOC users on the forums was not sought from the users themselves.

While informed consent is one of the key principles governing ethical research projects involving human beings, the objectives of participant observation means that informed consent from research subjects is not always possible or even preferable (Bowker and Tuffin, 2004:232; Eysenbach and Till, 2001:1104). This is especially true when the community under study comprises large numbers of people, and where membership is constantly in flux, as it is with MOOCs (Waskul and Douglass, 1996:136). Further still, seeking consent automatically means that the researcher

exposes his or her role and disrupts the natural environment, which is the whole reason for conducting ethnography in the first place. The goal is ‘to catch people in the routines of daily life, to reveal taken-for-granted aspects of their experience, and to make the background the foreground’ (Lareau, 2011:332).

Despite this desire to stay hidden from the research subjects in order to observe natural social behaviours, there remains opposition to conducting any ‘netography’ where the presence and intent of the researcher is concealed. For some, such covert observation by ‘professional lurkers’ is regarded as extremely suspect (Bowker and Tuffin, 2004:232; Huff and Rosenberg, 1989:168; Kawulich, 2005; Kozinets, 2002:65). The main concern about the lack of consent around ‘netography’ is that, in an online setting, there is no clear distinction between ‘public’ and ‘private’ space. Therefore, there are no established criteria for how individuals can, or should, regard their comments as personal and requiring permission to be used for research purposes. At the same time, there are no explicit rules for determining what information is ‘fair game’ for researchers either (Bowker and Tuffin, 2004:231; Williams, 2007:17). Hudson and Bruckman (2004:128) provide a useful illustration of this dilemma:

For some researchers, the internet is like a public square, and for others, a private living room, a town hall meeting, or a newspaper letters column. Each of these metaphors leads to different ethical conclusions. In a public square, a researcher may observe behaviour in a generalised way and write about aggregated results. In a private living room, permission of the participants is required for any research. A newspaper letters column does not require permission, but requires appropriate citations.

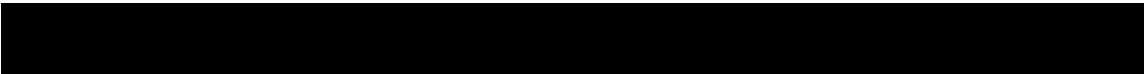
As the above description suggests, and as Waskul and Douglass (1996:131) contend, online environments are both ‘privately public’ and ‘publicly private’; there is no firm division of social space. The main issue for the ethical researcher to consider is not just how accessible a particular site or online community forum may be, but the social definition of the environment reached by its participants, as well as the intended nature of interaction (Waskul and Douglass, 1996:131-132). Just because someone is posting to a particular online forum does not mean they intend for their comments to be read by anyone outside of the forum community, regardless of how easy it is to access the forum (Waskul and Douglass, 1996:132). Essentially, it is the perceived level of privacy by participants of online communities that determines whether or not research that occurs without their consent is ethically sound. Criteria used to assess expected levels of perceived privacy include: (1) the size of the online forum, whereby a larger number of participants is thought to lower the perceived level of privacy; (2) the accessibility of the forum, whereby forums that require registration are considered to be more private

than those that do not; and (3) the nature of forum and of the research, whereby forums addressing sensitive topics are considered more likely to attract higher levels of perceived privacy than those addressing non-sensitive topics (Eysenbach and Till, 2001:1104; Hudson and Bruckman, 2004:138; Waskul and Douglass, 1996:133).

As the courses in this study for which forums were observed were comprised of large numbers of people (often tens to hundreds of thousands), it is fair to say that what was being observed was not likely to have been perceived by participants as operating in an intimate space. While course enrolment did need to occur in order to gain access to these forums, enrolment was basically open to anyone with an email address. As previously outlined, the MOOC providers of interest to this study had also defined their course forums as public spaces. Furthermore, with the central focus being on online learners, this study has presented a much more benign research topic than other instances where the ethics of covert observation has attracted debate, such as the study of an online pro-anorexia community by Brotsky and Giles (2007). After considering all of these issues – the high degree of accessibility, the large nature of the forums, and the non-sensitive subject matter – observation of participants of the MOOC forums without their consent was deemed ethically permissible, on the condition that identifying information was removed in the write up of results (Waskul and Douglass, 1996:135-137). The main research objectives were to respect the views and identities of participants, and operate on the basis of good 'netiquette' as much as possible (Smith, 2006). The ANU HREC agreed with this ethical assessment, granting approval for all of the research methods discussed here.

CHAPTER SUMMARY

This chapter has outlined the mixture of methods used in this thesis to contribute new knowledge on the construction, culture and consequences of the MOOC movement: frame analysis, focus groups, online survey and participant observation. With ethical issues addressed, and HREC approval obtained, the key findings from data collected through each of these methods have been set out in the following chapters.



5. Construction of the MOOC movement: The users' perspective

When the hype surrounding MOOCs was at its peak in mid-2013, many online videos were circulating the internet with the intention of recruiting more champions to the MOOC cause. One such video was from edX (2012), which asked viewers to ‘join the movement’ that it was championing: the MOOC movement. As a way to gain preliminary insight into the perceptions of MOOC users, the video was shown to two focus groups at the ANU in August 2013 in the hope of provoking discussion on whether or not participants thought the MOOC movement existed, and if so, whether they felt part of it.

As Box 5.1 shows, one person from the first focus group (Zara) did express some level of identification with the concept of a ‘MOOC movement’, even using the term ‘MOOCing’ to describe the behaviour of MOOC users. However, in the process of talking through her response, Zara did curb her ideas to be more in line with the other members of the group – all of whom dissociated themselves from the prospect of the MOOC movement – by saying that if it was a movement then perhaps it was just a ‘small’ one. Box 5.2 illustrates how the second focus group expressed a similar sentiment to most of those in the first, with participants displaying neither a strong sense of collective identity with other MOOC users, nor indicating a strong association with the MOOC movement. Some of the participants in both focus groups went so far as to call the edX video ‘propaganda’ and ‘very preachy’, even ‘evangelical’. This suggests that, even if some users did recognise the MOOC movement, and saw themselves as part of it – as Zara’s comments indicated – it has not necessarily been something that all users explicitly agreed with or were consciously aware of.

Box 5.1 Belief in, and identification with, the MOOC movement: Focus group 1

EMILY/FACILITATOR: So what do people think about the idea of MOOCs being a 'movement'? Do you feel like you're part of a movement?

VINCE: Well as much as the internet is a movement, sure *[laughs]*.

MATT: Yeah, and there's that real tendency to see internet technology as like this revolutionary, democratising, you know, element—

VINCE: *[interrupts]* Which is not really the case.

MATT: *[continues]* that's popped up in all, you know, the media, and you know in terms of—

ZARA: *[interrupts]* Oh, I think it is. I think it's great. It's exciting that big institutions can, you know...I don't know what's in it for them, as far as, you know...maybe there's this whole researching thing at the moment because it's free and they're just testing the waters and making it free so that they can get as many participants to research at once. But, you know, I think it's exciting. Like if it's going to revolutionise the way that we do education, then yes, we are part of a movement. It's like art, for example. Like, we had different ages of art. You know, we had the modernists; we had the surrealists, and so on. And education, I think, is one of those things where it...there's not really been...well, there's been little sections, little movements, within it. I think 'MOOCing' is just a small part of it. I don't think universities are ever going to really go away. Maybe they'll just co-exist and they'll, you know, like they were saying in the video, they supplement, you know, the actual learning at the moment. Which is exciting.

Box 5.2 Belief in, and identification with, the MOOC movement: Focus group 2

EMILY/FACILITATOR: *[In reference to the edX video clip played to the group]* The word 'revolution' was used several times. And 'movement' – 'join the movement'. Do you feel like you're part of a movement?

ELIZABETH: No...I maintain that the internet is one of the single greatest inventions that humanity ever has and, with my limited imagination, ever will actually have. And I think we're just making use of a natural consequence of something like the internet.

SEAN: Yeah. I dunno. I guess I get a bit uncomfortable when people throw around those words. But, maybe things like revolution. I dunno. I guess that's more of a retrospective term. After something's happened, people look back and go, 'oh, look, it was a revolution'. But when you're in the midst of it, you would never say, 'I'm in a revolution'.

The online survey conducted with MOOC users more broadly delved further into this issue of movement affiliation. Respondents were first provided with some background information on media discourse about the MOOC movement and then asked, specifically, whether they thought that such a movement existed and, if so, whether they identified as part of it and why/why not. In each instance, text boxes were provided to allow written elaborations behind each answer, from which select quotes have been included later in this chapter (separated by bullet points to help identify the words of different users without disrupting the flow of the text). Respondents were also asked how they perceived themselves as MOOC users, to see if there was any correlation

between their identification as individuals and their identification (or lack thereof) with the MOOC movement. As Table 5.1 shows, of the 2,191 people who completed the survey, 67% of respondents said that the MOOC movement existed, while a further 26% said it did not. The remaining 7% did not provide an answer.

Table 5.1 Survey respondents' belief in the existence of the MOOC movement

		N	%	Valid %
Valid	Yes, believes MOOC movement exists	1,468	67.0	72.1
	No, does not believe MOOC movement exists	568	25.9	27.9
	Total	2,036	92.9	100.0
Missing		155	7.1	
Total		2,191	100.0	

Many who believed in the existence of the MOOC movement cited the sheer, and increasing, number of participants as reason enough to believe: 'there obviously is [one], since there are millions of individuals who are taking part in these courses all around the world'; 'I see hundreds of thousands of people from everywhere taking the same courses as me, so it must be something'; 'popularity is the first step of a movement'. Others cited active recruitment as a factor for believing that the MOOC movement is real: 'people talk about them and promote them'; there are many 'enthusiasts, spreading their enthusiasm'; 'ambassadors for MOOCs' who represent 'a community united by the spirit and the desire to improve' and 'are aggressively supporting and promoting MOOCs'. There was also a sense that some people are not just aware of the MOOC movement, or even 'part of it' – they are 'living it'. According to some respondents, the fact that MOOCs have vocal opponents – people who distrust MOOCs because of a concern over the lack face-to-face contact between users, the threat they pose to academic careers and to the dissemination and ownership of academic knowledge – also gives some credence to the idea of the MOOC phenomenon as a social movement: 'the adherents of MOOCs are so passionate that [they have] constant arguments with some of the passionate opponents. This is how "movements" mostly pan out'; 'movements start slow and this one is on the way, and critics are coming out of the walls – also a sign of a movement'.

Many of the 26% of respondents who *did not* believe in the existence of the MOOC movement said they had simply never heard the term used before, or that they did not see a huge awareness about MOOCs among their family, friends or broader community: 'it's hard to think of it as a movement when people around me aren't

involved'; 'it is still generally not known about by the general public'. Another common belief was that, because MOOCs have attracted people from such diverse backgrounds, and with such diverse reasons for participating, it is impossible to think of MOOC users as some kind of united, homogenous entity akin to a social movement, thought to be 'an organised body [with] common purpose'. MOOCs were instead viewed as a 'loose collection of people acting independently for their own ends'. Others who denounced the idea of the MOOC movement did so on the grounds that they thought social movements were inherently political whereas MOOCs were fundamentally educational (or at least an advertisement for more extensive education): 'movements are political, education shouldn't be'; 'advertising yes, political incentive no'. Some also viewed 'social movement' as a particularly loaded term with especially negative connotations, better associated with deviants and cults than with MOOCs: 'a movement sounds like a cult'; 'MOOCs are not cults'; 'it's not a freaking cult'; there's 'no need to be dramatic' or 'emotional' about MOOCs by calling them a movement, 'that's just weird'.

EXPLAINING MOVEMENT AFFILIATION

Importantly, belief in the existence of the MOOC movement did not equate to automatic attachment to it. As Table 5.2 shows, 15% of the people who said they believed the MOOC movement existed denied any affiliation with it.

Table 5.2 Survey respondents' sense of affiliation with the MOOC movement (among the 1,468 MOOC movement believers only)

		N	%	Valid %
Valid	Yes, does affiliate with the MOOC movement	1,236	84.2	84.7
	No, does not affiliate with the MOOC movement	224	15.3	15.3
	Total	1,460	99.5	100.0
Missing		8	.5	
Total		1,468	100.0	

A lot of respondents did not specify a clear reason as to why they distanced themselves from being considered part of the MOOC movement, or said that they felt too inexperienced with MOOCs to make such a judgment:

- 'This is only my first class, and I am not aware of a "movement".'
- 'It's too soon for me to feel a part of it or not, I'm still finding my way around this whole new world.'
- 'I've just begun...maybe in time?'

- ‘I am just exploring how the mechanism of online learning actually works and I have yet to fully make up my mind about it!’
- ‘I’m only just starting to utilise open online courses and do not have any emotional attachment or investment in them yet.’
- ‘This is my first MOOC. Hard to say [whether] I’ve been swept up by the movement.’

Many of those who did provide a distinct reason for lack of affiliation with the MOOC movement said that it was because they were not invested in MOOCs beyond their own personal learning needs. Essentially, they did not consider themselves recruited to any broader MOOC cause, as the below quotes suggest (please note that more quotes have been included in Appendix X):

- ‘I’m not part of anything except I want to learn.’
- ‘While I believe MOOCs (or something like them) will be the future of education, I do not feel invested in their success.’
- ‘I’m learning for myself, not trying to advance an agenda.’
- ‘This is strictly a personal enrichment goal.’
- ‘I’m not part of the movement in that I don’t have any investment in the movement succeeding. I can find many ways to learn the material I have studied in MOOCs. MOOCs simply provide a more convenient means for me to attain my goals.’
- ‘If MOOCs did not exist, I would be just as happy learning from a book. It is convenient, but it doesn’t mean that much to me.’
- ‘I am not personally invested in the outcome of the movement.’
- ‘I am human, not propaganda. I take the classes I need; though I am inspired by edX, I am a student and not the promoter.’
- ‘I don’t “spread the message” or try to convince anyone about the importance of MOOCs.’
- ‘I don’t sit around obsessing about MOOCs.’
- ‘I just take from it what I need for myself. I am not an active MOOC promoter or defender or activist in that sense of being part of movements.’
- ‘I take classes, but I’m not attached to any of them. When I continue with a class, I do it because I’m interested, or because of a personal sense of commitment, not because I feel as though I’m contributing something to some educational revolution.’
- ‘I’m doing this entirely on my own, for my own personal reasons.’
- ‘I have no personal stake beyond my decision to see if I want to continue academically.’
- ‘It’s not my movement to spearhead.’

Apart from a lack of personal investment in MOOCs, a few respondents actually said they disagreed with the expansion of MOOCs, or at least the premise that MOOCs could provide a worthy alternative or supplement to traditional higher education. For them, on-campus university course programs needed to remain the 'gold standard' for effective, high-quality higher education, both now and into the future:

- 'I am not sure it should replace traditional classes. I think that a combination of face to face and traditional is important.'
- 'I will make use of this for what I can get in the areas of my interest, but I am not inclined so far to feel that this is useful as a replacement for a more formal, guided educational experience. It's either too hard (and there are too many people enrolled to have direct interaction with the prof) or they are too broad and general.'
- 'I'm a stick-in-the-mud who prefers the obsolete way of learning (the one that involves time and sustained effort and gives you more than a smattering of whatever you're learning about).'
- 'I'm bored and want to learn about advanced topics. I am not here because I am passionate about this ridiculous notion that advanced education should be free.'
- 'I still prefer face-to-face lectures.'

This is an interesting finding because it reveals that some of the people participating in MOOCs did not actually want MOOCs to 'succeed' in disrupting the higher education landscape. And yet, they were still happy to be part of the MOOC journey, whatever the final destination may be. This kind of conflict in attitude was a recurring theme in survey responses. Some respondents even suggested that, while wanting to experience these new and increasingly popular courses, taken up by so many others from around the world, they did not want to experience them with others. Moreover, they said that it was because of these anti-social tendencies towards other MOOC users that they were precluded from claiming membership to the MOOC movement:

- 'I am not so social to be part of a movement, and I don't need it.'
- 'I'm not a "herd type" person.'
- 'Not a "joiner".'
- 'I have not formed lasting connections with other MOOC participants.'
- 'I only participate in the periphery.'
- 'My learning is passive. I don't take part in the forums. I don't like posting to forums as I feel uncomfortable doing so.'
- 'I am a very individualistic person and not so easily part of a movement.'
- 'Not really a "movement" person.'

- ‘I rarely consider myself part of any group in that way.’
- ‘I think of myself as an autonomous individual. I don’t like to be grouped in together.’
- ‘I am not much into interacting with other people, so I don’t feel like part of a MOOC movement or anything similar.’
- ‘I’m not quite a group person and have my own goals and aspirations.’
- ‘I am a loner.’
- ‘I don’t feel like joining in.’
- ‘I enjoy learning and working alone. I do like to share my experience with people around me and tell them about the online learning and my satisfaction with this. But, in general, I like to be my own person and learn in my own space.’
- ‘I do not like interacting with large groups of people, therefore, I do not feel any special relationships towards other MOOC [users] other than that they, similar to me, like to learn.’
- ‘I’m for MOOCs. I enjoy doing them and would recommend them. But I don’t consider myself part of any movement. I’m too introverted/anti-social for that.’

While not everyone who said they believed in the existence of the MOOC movement actually considered themselves a member of it, the majority (84%) of them did. As with non-identifiers, a lot of respondents who identified as part of the movement did not actually articulate a clear reason as to why. Reasons that were provided echoed those behind users’ belief in the movement’s existence. One of the most common responses was that membership of the MOOC movement was simply a consequence of individual participation in a vast and growing collective. Essentially, ‘I MOOC, therefore I am’. Some of the quotes indicating this specific belief are listed below (please note that more quotes can be found in Appendix XI):

- ‘I participate, so am therefore part of the collective.’
- ‘Every person involved in anyway adds to it and helps give it a bigger impact.’
- ‘Because I’m taking part in a course right now, I feel that I’m part of the change.’
- ‘I have participated in over 20 courses, so it is clear that I am part of the movement.’
- ‘I have taken some courses with over 100,000 participants. That’s a movement!’
- ‘Because I have 153 MOOC certificates as of 1 October 2014. I have just received my 100th certificate from Coursera. I may be the first to have reached this number. It would make me proud if this was the case.’
- ‘I’m taking them! I’m definitely part of it.’
- ‘MOOCs couldn’t exist without their students. Every person to take one has contributed to the all-important proof of concept that has started the proverbial ball rolling towards expansion of this new form of education.’

- 'I'm enrolled in so many courses that I couldn't feel out of this movement.'
- 'Having successfully completed more than 15 different MOOCs, I definitely feel part of the movement! And very happy and proud for it!'
- 'By taking part in the courses, a person is showing that they agree with something, thereby being part of the MOOC movement.'
- 'Anyone who takes a MOOC is part of the movement, even if they're not an avid advocate of MOOCs.'
- 'By taking courses, I feel I am contributing to, and supporting, this amazing opening to education.'
- 'I have been involved since the beginning, and I have witnessed a steady progression in MOOC offerings, and I always offer encouragement to others who have just discovered the advantages of taking a MOOC.'
- 'I took my first MOOC last March and have witnessed the popularity of MOOCs increase. Since then, I have completed several more, and am currently doing six, so I'm probably forming a bit of a movement myself!'
- 'Being a voluntary participant is step one. Step two is talking about the experience with family friends, neighbours.'

This last quote about advocating for MOOCs, highlights what was a recurring theme in the responses of MOOC movement affiliates. The importance of active participation, namely through efforts to promote MOOCs and recruit new participants, was expressed by many. This suggests a concrete understanding of what the term 'social movement' actually meant to respondents, and what it meant to claim membership to such a movement:

- 'Active participation in courses (both as a student and a teaching assistant) is what the MOOC movement (to me) is all about.'
- 'I insist many friends to join and insist their friends to join. Also, if I somehow get the chance to use MOOCs to educate those who don't have internet, I will surely do.'
- 'I have been evangelising the availability of high-quality course with friends, relatives and colleagues.'
- 'I am a preacher in this cause.'
- 'I sing its praises and spread the word.'
- 'I participate and I advocate for others to participate. I babble about my experiences to friends and colleagues and hopefully [they will] spread the word.'
- 'I advocate for it all the time. I can't resist evangelising.'
- 'I have encouraged everyone that I know to enrol in a MOOC course, because we have knowledge at our fingertips. If people do not realise this, then they are missing out on an opportunity of a lifetime.'

- ‘[Because of] my growth in personal development and satisfaction during the last two to three years, I certainly want others to get the same experience.’
- ‘I promote it to everyone with whom I speak. I think it’s the best thing to happen to education in a long time. With a computer and electricity, you can live in a hut in a desert, and [still] get an education – never mind the certs, just the knowledge is invaluable.’
- ‘I participate as much as I can, and promote the MOOC movement to as many people as I come in contact with that show any interest in learning.’
- ‘I have convinced at least 10 people to take MOOCs. If every student does this then...using computers and tablets in basic schooling is [going to be] more or less standard, thus getting your education via [the] internet is going to be the norm.’
- ‘As an active participant in many MOOCs, my participation in this movement has been by accident more than explicit intent. I have an obligation to help demonstrate the relevance and value of the MOOC model.’
- ‘I don’t just take the courses, I encourage others to pursue these free and reduced cost options if I think they will benefit from them.’
- ‘I encourage others to try MOOCs, and I hope to one day be living proof of how they can help transform lives.’

To some, the recruitment of others was extremely important. Not because it meant they could share their interests with others, but because it meant they could invite them to a whole new way of life. For these people, MOOCs have been life-changing, and sometimes an all-consuming ‘addiction’:

- ‘I would not say movement, I would say world.’
- ‘I am being affected by it.’
- ‘I’m definitely hooked.’
- ‘I may just be a learning addict.’
- ‘Almost as soon as I finish one class, I start looking for the next one.’
- ‘It’s an important part of my life and I contribute significantly to the ones that I participate in.’
- ‘90% of my academic, social, cultural and moral interactions are derived the MOOC offerings and my participation.’
- ‘It’s a bit more than just a community.’
- ‘I have embraced it with a passion. It is almost like an addiction. I enrol in several courses at once, and stay up past midnight listening to lectures.’
- ‘This is my seventh course, and I think it has become addictive.’
- ‘I foresee using MOOCs for the rest of my life. I expect it will ultimately end up more and more involved as things move forward.’
- ‘I find the experience of learning via MOOCs almost addicting.’

- 'Doing MOOCs is a way of expressing who I am, what I'm interested, [and how] I wish to spend my time.'
- '[MOOCs are] the best thing to happen to me in the last two years.'
- 'I was completely taken by the MOOC concept when I learnt about it and expect it to be a permanent part of my life from now on.'
- 'Whatever it is, medieval history or evolutionary biology, each course makes me a slightly different person. I live alone and often get home late at night from work – joining MOOC forums is the nearest I get to a social life at times.'
- 'I joined Coursera soon after it started, and it is a daily part of my life now.'
- 'It is addictive. Once you have started, you cannot stop.'
- 'I've finished two courses and I'm currently enrolled in four simultaneously. That's how much I believe in it. I suffer from withdrawal when there's nothing that interests me.'

In these cases, MOOCs were not just courses that people undertook. They were something that had a profound effect on their lives. By extension, affiliation with the MOOC movement, and a concerted effort to promote the expansion and continuation of these courses, was a natural progression of course participation. Identification with a MOOC ideology, though, was less explicitly defined as a reason for movement affiliation. That said, there were certainly instances where a strong agreement with the idea and execution of MOOCs – free and accessible, online, high-quality education – was professed as a reason for some respondents' claims of movement membership:

- 'I strongly feel that continuing education/lifelong learning should be available to all, and this strikes me as an excellent means by which to provide it.'
- 'MOOCs have a huge potential to enhance and improve traditional education, and access to education.'
- 'I believe that education should be made accessible to all. And, to me, that includes higher education as well.'
- 'I can see that MOOCs have the long-term ability to change educational and social structures around the world.'
- 'I am an advocate for access to education...access to education is one attempt to lessen the gap and bridge opportunities to connect with each other to improve universal issues that we all have obligations to address.'
- 'I recognise their potential and believe that, in some form, they will become the basic form of education in the future.'
- 'People are hungry for knowledge, and MOOCs provide an opportunity for them to come together. It also provides an opportunity for a lecturer to spread his/her knowledge to humanity.'

- ‘I have immense interest and enjoy the courses. Also, I feel everyone should have access to quality education.’
- ‘I believe MOOCs are one of the best approaches to education, particular for adding skills to what graduates already have.’
- ‘I strongly believe in education as a tool to improve the human condition. The more educated people in the world, the better the world will be.’
- ‘Humanity needs MOOCs.’
- ‘It will lead to a better world.’

In addition to sharing the values and goals behind MOOCs to expand access to higher education, some respondents also expressed a sense of shared connection with other MOOC users. To them, MOOCs attracted a community of like-minded people:

- ‘My interactions on the discussion forum make me think there are lots of people like me.’
- ‘I absolutely love the feeling of connectedness that I get from taking MOOCs.’
- ‘Being a student in a MOOC...I am part of a global community that is actively learning.’
- ‘I feel a strong sense of unity within the online learning community.’
- ‘We are part of the big family of students taking MOOC classes.’
- ‘Participants share similar interests. They all want to learn and improve for different reasons. I get inspired when I am exposed to new content, meet new people who want to learn, and learn about new cultures.’
- ‘I have taken several courses now and, in some cases, [I have] felt a very strong identification with the other students.’
- ‘[I am] interacting with like-minded people.’
- ‘I belong to a group that is huge in numbers.’
- ‘I feel very much part of this community.’
- ‘I’m part of the community of people that believe that MOOCs are a good opportunity and a great source of knowledge.’
- ‘I not only learn from MOOCs, but try to contribute wherever possible. I have a sense of belonging.’
- ‘I have done a number of courses, and feel that I am part of the community in the same way as being a student in a conventional university course.’
- ‘That’s part of the interest of MOOCs: the sensation to become a member of a community, to learn, to share, to make things change.’

These quotes suggest that MOOCs have perhaps been more social than some external commentators realised, at least for some respondents. At the very least, they show that some MOOC users felt a sense of attachment to the people they were interacting with online, despite the massive enrolment numbers and potentially large geographic distances between them. Intriguingly, though, a lot of respondents did not explicitly acknowledge identification and collaboration with MOOC peers as a reason behind their affiliation with the MOOC movement. This may suggest, as has just been outlined, that there are factors other than a sense of collective identity that contribute to affiliation with social movements. At the same time, it must be noted that just because some respondents did not express a direct connection to others does not mean that a sense of connection did not exist.

In further examination of the quantitative survey data, Pearson correlation coefficients were calculated (see Table 5.3). The results suggest that movement affiliation among survey respondents was positively correlated with sense of connection ($r = .207$, $n = 1,460$, $p < .001$) and with sense of empowerment ($r = .205$, $n = 1,457$, $p < .001$). With both scale measures ranging from 1 = Weak to 4 = Strong, and identification with the MOOC movement coded as 1 = No and 2 = Yes, this positive relationship means that those who identified as part of the movement were likely to feel connected to other MOOC users and empowered by their MOOC experience. This is even if these sentiments were not expressed as factors for their identification with the movement. The other two statistically-significant positive relationships for movement affiliation were with identification as a MOOC user ($r = .095$, $n = 1,460$, $p < .001$) and age ($r = .079$, $n = 1,434$, $p < .010$). The positive relationship with age means that, as age increased, it was likely that movement identification did also. Similarly, with identification as a MOOC user coded as 1 = Other and 2 = Student of the MOOC provider, respondents who affiliated themselves with one of the MOOC providers were also likely to affiliate themselves with the MOOC movement. Subsequent analysis through cross-tabulation (see Table 5.4) confirmed this latter observation, in that those who separated themselves from the MOOC movement were more likely (65%) to identify themselves as general learners compared with those who affiliated themselves with the movement (48%). Conversely, those who affiliated themselves with the MOOC movement were more likely than non-affiliates to hold a stronger identification with the MOOC provider (42% compared with 29%). There was no significant difference across movement affiliation categories for institution-specific identification (see Appendix XII for a comparison of all of the independent variables).

Table 5.3 Correlation coefficients for MOOC movement affiliation of survey respondents (among the 1,460 MOOC movement believers who answered the affiliation question)

Variable ^a		Affiliation with MOOC movement
Age	Pearson Correlation	.079**
	Sig. (2-tailed)	.003
	N	1,434
Sex	Pearson Correlation	-.020
	Sig. (2-tailed)	.453
	N	1,427
Qualification	Pearson Correlation	.032
	Sig. (2-tailed)	.234
	N	1,418
Country of residence	Pearson Correlation	-.032
	Sig. (2-tailed)	.228
	N	1,444
Employment status	Pearson Correlation	.025
	Sig. (2-tailed)	.338
	N	1,414
Perceived educational value	Pearson Correlation	.005
	Sig. (2-tailed)	.855
	N	1,447
Perceived employment value	Pearson Correlation	-.048
	Sig. (2-tailed)	.072
	N	1,425
Perceived personal value	Pearson Correlation	.007
	Sig. (2-tailed)	.802
	N	1,446
Identification as a MOOC user	Pearson Correlation	.095**
	Sig. (2-tailed)	.000
	N	1,460
Sense of connection	Pearson Correlation	.207**
	Sig. (2-tailed)	.000
	N	1,460
Sense of empowerment	Pearson Correlation	.205**
	Sig. (2-tailed)	.000
	N	1,457

^a . See Appendix VII for specific coding of variables used in analysis.

* . Correlation is significant at the .05 level (2-tailed).

** . Correlation is significant at the .01 level (2-tailed).

An independent t-test also showed that those who considered themselves part of the MOOC movement tended to be older, on average, than people who did not affiliate themselves with the movement, with mean ages of 42 years and 38 years respectively. The predictive qualities of all the variables were assessed using standard linear regression, with movement affiliation as the dependent variable. As indicated in Table 5.5, the two independent variables with the largest standardised coefficients, and thus

largest predictive capabilities, were sense of empowerment ($\beta = .128, p < .001$) and sense of connection ($\beta = .111, p < .010$). That being said, the total variance explained by the model as a whole was only 6%.

What this model summary suggests is that not all of what predicts a person's identification in the MOOC movement has been captured by the survey instrument. What has been determined, though, is that affiliation with the MOOC movement appears to have more to do with the social psychological side of the MOOC experience than with the demographic characteristics of participants. An elaboration of the experiential factors can be found in Chapter 8.

Table 5.4 Affiliation with the MOOC movement by self-identification of survey respondents as MOOC users (among the 1,460 MOOC movement believers who answered the affiliation question)

		Do you consider yourself part of the MOOC movement?		
		Yes	No	Total
How would you describe yourself as a participant of open online courses?	A general learner	48.1%	65.0%	50.7%
	A student of the MOOC platform (e.g. a Coursera student)	41.8%	28.7%	39.8%
	A student of the university/organisation running the course (e.g. a Harvard student)	8.6%	5.8%	8.2%
	Other	1.5%	.4%	1.3%
Missing	N	8	1	9
Total	N	1,228	223	1,451
	%	100.0	100.0	100.0

CHAPTER SUMMARY

This chapter has presented data on users' belief in, and identification with, the MOOC movement, gathered from the focus groups and online survey conducted as part of this study. What has been found is that some users have denied any affiliation with the MOOC movement, and others have denied that such a thing even exists. The majority of those who completed the online survey, however, have said that the MOOC movement certainly does exist, and that they are part of it. This shows that the concept of the MOOC movement is not just 'spin' used by MOOC providers or media commentators to create hype around these open online courses; it is real in the mind of many a MOOC user. Further analysis on the construction and culture of this movement is presented in Chapter 8, following the presentation of intended and unintended consequences outlined in the next two chapters.

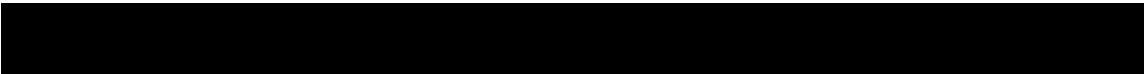
Table 5.5 Standard linear regression coefficients for movement affiliation of survey respondents (among the 1,460 MOOC movement believers who answered the affiliation question)

Model ^a	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	95.0% Confidence Interval for B			Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound		Zero-order	Partial	Part	Tolerance	VIF
(Constant)	1.200	.117		10.275	.000	.971	1.429						
Age	.002	.001	.082	2.786	.005	.001	.003		.079	.075	.073	.786	1.273
Sex	-.004	.019	-.005	-.182	.855	-.041	.034		-.020	-.005	-.005	.961	1.040
Qualification	.021	.024	.025	.870	.385	-.027	.069		.032	.023	.023	.845	1.184
Country of residence	-.019	.021	-.026	-.907	.364	-.061	.022		-.032	-.024	-.024	.857	1.167
Employment status	.008	.020	.010	.384	.701	-.031	.047		.025	.010	.010	.914	1.094
Perception of educational value	.004	.031	.004	.134	.894	-.056	.064		.005	.004	.003	.893	1.120
Perception of employment value	-.010	.020	-.014	-.498	.619	-.049	.029		-.048	-.013	-.013	.913	1.095
Perception of personal value	.006	.037	.004	.157	.875	-.066	.078		.007	.004	.004	.975	1.026
Identification as a MOOC user	.051	.020	.069	2.610	.009	.013	.090		.095	.070	.068	.963	1.038
Sense of connection	.078	.024	.111	3.266	.001	.031	.125		.207	.088	.085	.594	1.684
Sense of empowerment	.099	.026	.128	3.773	.000	.047	.150		.205	.101	.098	.591	1.692
Model Summary^c													
R				R Square		Adjusted R Square			Std. Error of the Estimate				
.255 ^b				.065		.057			.350				

^a. See Appendix VII for specific coding of variables used in analysis.

^b. Predictors: (Constant), Sense of empowerment, Perception of personal value, Employment status, Sex, Perception of educational value, Identification as a MOOC user, Age, Perception of employment value, Country of residence, Qualification, Sense of connection.

^c. Dependent Variable: Do you consider yourself part of the MOOC movement?



6. The intended consequences of the MOOC movement: Provider goals

Just as social movements and movement organisations are socially constructed, so too are the social problems they claim to address (Buechler, 1995:446; Hjelmar, 1996:170). This is not to say that the issues underlying particular social movements are not real, but simply that the transformation of a social issue into a particular ‘problem’ to be ‘solved’ relies on the creation of particular ‘frames’ through which such issues are to be viewed and acted upon (Rucht and Neidhardt, 2002:9). According to Snow and Benford (1988:207), this is how movement organisations communicate their objectives and justify their existence to the outside world: they problematise an issue in society (‘diagnostic’ frame), propose a way of addressing the problem (‘prognostic’ frame), and suggest why and how people should join them in their cause (‘motivational’ frame). In operating according to this premise, this chapter looks closely at how providers have framed MOOCs, and thus their intended consequences, as well as how user attitudes and experiences compare with this framework.

FRAMING THE MOOC

The chief champions of the MOOC movement – Coursera, edX and Udacity – have all, through their official websites, positioned themselves in a world where there is not enough access to quality higher education (‘diagnostic’ frame). They have each proposed to address this issue by providing courses from some of the world’s most prestigious universities and field experts, via the internet, to learners from around the globe (‘prognostic’ frame). That the courses are, by and large, free, and can be undertaken anywhere, anytime, has been presented as impetus for prospective learners

to become engaged ('motivational' frame). Together, these three framing elements form the general interpretive package that the MOOC providers have created in an attempt to persuade people to support and participate in the MOOC movement.

Within this general schema, edX initially adopted a very institution-centric approach in how it framed its own MOOC mission on its website (the public face of the organisation). In positioning itself as a research-led, not-for-profit venture, and therefore as something to stand apart from its for-profit counterparts, Coursera and Udacity, edX sought to gain as much support from prospective world-renowned university partners as it could. Part of the appeal of edX in its early stage was its promise to extend the reach of participating institutions – their brand, services and products – to a global market. It was clear that, in the beginning at least, edX's primary audience was universities, with the key message being that MOOCs presented an opportunity for new kinds of research and marketability of educational products. This was made evident in the aims of edX in April 2013, compiled from statements on the 'What is edX?' and 'About edX' pages of the website. At the time, these aims were:

1. To undertake research on how technology can transform learning both on campus and online throughout the world.
2. To extend [the] collective reach [of participating institutions] to build a global community of online students.
3. To reach out to students of all ages, means, and nations.

Targeting a different audience (the users learning through MOOCs), Coursera's aims as a self-proclaimed 'social entrepreneurship company' – as listed on the 'About Coursera' page at this time – were:

1. To offer courses for anyone to take, for free.
2. [To create] a future where the top universities are educating not only thousands of students but millions.
3. To give everyone access to the world-class education that has so far been available to only a select few.
4. To empower people with education that will improve their lives, the lives of their families, and the communities they live in.

Meanwhile, Udacity's mission in April 2013, as listed on its 'About' page, was:

1. To bring accessible, affordable, engaging, and highly effective higher education to the world.
2. To empower our students to advance their education and careers.
3. [To reinvent] education for the 21st Century by bridging the gap between real-world skills, relevant education, and employment.

In these early stages, both Coursera and Udacity presented themselves as user-centric endeavours despite always acting, ultimately, in the interests of their investors (being for-profit ventures). Since the original message of the not-for-profit edX was far more institution-centric, it was set apart from the other two providers, though perhaps not entirely in its own interests. For edX to pursue any of its research endeavours in a significant (that is, ‘massive’) way it would have to attract a lot of participants to its courses, otherwise there would be nothing and nobody to actually conduct research on. So, in a strategic effort to entice more MOOC users, edX altered the way it framed its MOOC mission and its course offerings.

By August 2013, edX had become well and truly aligned with the other two providers, resituating its focus on the MOOC users (current and prospective) rather than institutional partners. At this time, the language and imagery used by edX had become much more engaging and uplifting, with a new claim that, like Coursera and Udacity, edX was ‘empowering’ users by placing them at the centre of its ‘amazing’ learning experience; an experience that they could take ‘wherever, whenever’ they liked and through which they could ‘meet new friends’ (edX, 2013a). Holding true to the MOOC ideal, edX claimed that ‘everyone is accepted’ in the ‘virtual classroom’ offered in each of their courses. The inclusiveness of the term ‘everyone’ was slightly tainted, however, by the claim that prospective participants could ‘use the latest in peer-to-peer social learning tools and connect with smart and passionate people, just like you, from around the world’ (edX, 2013b). This statement, while seemingly benign and welcoming, actually put up a kind of warning to prospective users. Participants of edX courses were expected to be highly intelligent and passionate about their chosen subjects, and if anyone wanted to be part of the edX community, then they had better be highly intelligent and passionate themselves. The implicit assumption, therefore, was that while edX courses had been ostensibly open to all, and generally did not attract academic credit towards formal qualifications, users were urged not to treat them frivolously; they were serious academic endeavours. These stern undertones aside, the language that edX was starting to employ had very much become about embracing individual learning needs and recruiting as many new users as possible. The overall message to anyone thinking of enrolling in a MOOC had effectively become: rethink *your* world, experience the best courses wherever and whenever *you* want, change *your* life, on *your* schedule.

While edX was busy repositioning itself to appeal to the education-receivers, Coursera was reaffirming its stance as an education-provider. It discarded its previous

description as 'social entrepreneurship company' that offered courses through partnerships with 'top universities', recasting itself simply as an 'education company' in its own right. Despite this slight refresh, the mission of Coursera remained the same by August 2013, with an addition similar to that of edX, of 'connecting people' (Coursera, 2013). Udacity's public image and mission remained unchanged.

By the end of 2013, common threads were identified across the framing mechanisms employed by all three providers. The users had become the main collective focus of the MOOC endeavour and, therefore, the success of MOOCs depended on their ability to have a positive impact on users' lives. The collective objectives that emerged from the three providers were essentially to connect and empower users, to increase access to world-class higher education, and to promote 'anywhere, anytime' learning (Coursera, 2014a; edX, 2014a; 2014b; Longstaff, 2015; Udacity, 2014a; 2014b).

By March 2014, edX had retained its user-centric tone from the previous year, with no apparent changes to its mission or principles. Coursera, though, had once again changed its organisational description, this time from being an 'education company' to an 'education platform' (Coursera, 2014a). Despite still holding for-profit status, this shift in representation helped further legitimise Coursera as an education provider by distancing itself, at least in terms of public perception, from its corporate image. The rest of its mission statement had been retained from the previous year, but this time the comment about 'connecting with classmates' had moved down the 'About Coursera' page under a separate 'How it Works' section. By June 2015, its mission statement had been reduced to just one line about how the organisation sought to 'provide universal access to the world's best education', with all of its previous objectives shifted to the 'How it Works' section. Despite this rearrangement of content over time, the objectives of Coursera remained fairly steady between mid-2013 to mid-2015.

During this same period, Udacity underwent quite a shift in operations, with a restructure in course offerings and, eventually, a strong emphasis on its new 'nanodegrees'. Despite these changes, as discussed in Chapter 1, all of Udacity's course content has continued to be freely accessible, thereby allowing them to still be assessed in this study under the 'MOOC' banner. The organisation's core mission also stayed unchanged for the duration of this study, with its overarching mission statement in June 2015 being the same as it was in April 2013:

Our mission is to bring accessible, affordable, engaging, and highly effective higher education to the world. We believe that higher education is a basic human right, and we seek to empower our students to advance their education and careers (Udacity, 2015).

The last line is important to consider, as empowerment was the one goal that, by June 2015, remained in use on edX's website but had disappeared from Coursera's (a possible reason for this omission is outlined later in this chapter on pp. 112-113). Importantly, though, empowerment remained a feature in the mission statements of each provider during the data collection period of this study, occurring in late August 2013 to October 2014. For this reason, it has been included as one of the 'collective goals' or 'intended consequences' of the MOOC movement for the purpose of this thesis. How well it has aligned with user attitudes and experiences has been assessed, along with the other provider goals, through data obtained from the focus groups and the online survey.

'ANYWHERE, ANYTIME' LEARNING

While the online survey was based on voluntary participation, and therefore in no way intended to be representative of the entire MOOC population, the survey has nonetheless become a valuable source of information about how user experiences have compared with provider goals. The demographic information gathered by the survey has also been important for understanding how certain characteristics may be related to different attitudes and behaviours surrounding MOOCs, as well as different constructions of the MOOC movement.

In the assessment of whether MOOCs have been achieving the goal of providing access to higher education 'anywhere, anytime', survey respondents were compared across age, sex, educational attainment, employment status and country of residence. Among the total 2,191 analysable survey respondents, 2,150 of them reported their age. Of these, the stated ages ranged from as young as 13 years right up to 82 years. The mean age was 41 years, the median age was 39, and the largest age bracket – comprising 22% of respondents – was 25-34 years. Overall, 65% of the survey respondents were aged 30 years or over. This meant that the majority of the survey respondents were older than the 'traditional' university student. The distribution of sex among those who reported it was 54% female and 46% male, meaning that slightly more women completed the survey than did men. Respondents were also shown to be well educated, with 77% of the 2,121 people who answered the question about their educational attainment stating that they had a bachelor degree or higher qualification. Indeed, 11% had completed PhDs and 31% had completed masters degrees. The employment spread was more even, with 58% of the 2,131 respondents saying they were employed at the time of the survey and a further 42% saying they were not employed.

Table 6.1 Frequency of survey respondents, distribution across demographic variables

Variable	N	%
Age		
17 and below	58	2.7
18-24	388	18.0
25-34	477	22.2
35-44	335	15.6
45-54	324	15.1
55-64	347	16.1
65-74	196	9.1
75+	25	1.2
Total	2,150	100.0
Sex		
Male	988	46.1
Female	1,155	53.9
Total	2,143	100.0
Highest qualification attained		
<i>Level of qualification</i>		
None	276	13.0
Vocational/technical diploma/certificate	197	9.3
Bachelor degree	771	36.4
Masters degree	652	30.7
PhD	225	10.6
<i>University qualification completed</i>		
No	1,648	77.7
Yes	473	22.3
Total	2,121	100.0
Employment status		
Not employed	886	42.0
Employed	1,222	58.0
Total	2,108	100.0
Country of residence		
<i>Geographic region</i>		
North America	751	34.8
Europe	608	28.1
Asia	435	20.1
Oceania	162	7.5
Latin America and the Caribbean	138	6.4
Africa	67	3.1
<i>Level of development</i>		
Developing regions	730	33.8
Developed regions	1,431	66.2
<i>Relative level of development</i>		
World's least developed countries	15	.7
Remaining countries	2,146	99.3
Total	2,161	100.0
Missing data		
Age	41	
Sex	48	
Highest qualification attained	70	
Employment status	83	
Country of residence	30	
TOTAL (including missing data)	2,191	

Respondents varied considerably in terms of where they said they lived. Across the 2,161 people who stated their country of residence, 112 different countries were listed (see Appendix V). Three additional territories – Bermuda (officially part of the United Kingdom), Puerto Rico (officially part of the United States of America), Catalonia (officially part of Spain) – were coded to their official state name for categorisation purposes. In terms of geographic region, the areas comprising the most respondents were North America (35%), Europe (28%), and Asia (20%). As this distribution suggests, the majority (66%) of respondents were shown to live in developed countries, and only a small proportion (0.7%) were shown to come from the poorest and least developed nations.

Aside from gathering demographic information, one of the purposes of the survey was to assess why respondents chose to participate in MOOCs. This was to establish whether learning ‘anywhere, anytime’ was as much a key issue for users as it was for providers. As Table 6.2 shows, when asked to pick the *main* reason behind their participation, personal enjoyment was by far the most common reason, selected by 55% of the 2,165 respondents to this particular question. The opportunity to enhance career prospects was the next most common reason, selected by 15% of respondents.

Table 6.2 Main reason for survey respondents’ participation in MOOCs (single category selection)

		N	%	Valid %
Valid	Personal enjoyment	1,192	54.4	55.1
	Career prospects	327	14.9	15.1
	Other	212	9.7	9.8
	To supplement other study	144	6.6	6.7
	Other forms of education are too expensive	118	5.4	5.5
	The prestige of the course creator	49	2.2	2.3
	To sample the university/organisation’s courses	35	1.6	1.6
	Not enough time to study towards a university degree	33	1.5	1.5
	Live too far away to physically attend a university	21	1.0	1.0
	Disability or other health issue	20	.9	.9
	Do not meet university prerequisites	14	.6	.6
	Total	2,165	98.8	100.0
Missing		26	1.2	
Total		2,191	100.0	

When asked about *all* of the reasons why they participated in MOOCs, with the option to select multiple categories, most respondents (89%) said personal enjoyment was a key factor for choosing a MOOC over other forms of higher education (see Table 6.3). A further 44% of respondents also said they were taking MOOCs to enhance their career prospects, while 33% said they chose to enrol in MOOCs instead of other forms

of higher education because other forms were too expensive. The prestige of course creators was the next most common reason, expressed by 30% of respondents. Constraints on personal time (17%) and distance from universities (12%) were also factors behind participation, but they were certainly not reasons expressed by everyone. Other inclusive aspects pertaining to MOOC participation, such as providing access to higher education for people who do not meet the necessary prerequisites to study at a university or who have a disability or other health issue that may inhibit participation in traditional higher education in some way, were also not prominent reasons for participating. Respectively, just 5% and 4% of respondents highlighted these as reasons for their engagement in MOOCs.

Table 6.3 All reasons for survey respondents' participation in MOOCs (multiple category selection)

	N	%	% of cases
Personal enjoyment	1,932	29.1	89.2
To enhance career prospects	951	14.3	43.9
Other forms of education are too expensive	716	10.8	33.1
The prestige of the course creator	648	9.8	29.9
Other	539	8.1	24.9
To supplement other study	522	7.9	24.1
To sample the university/organisation's courses	505	7.6	23.3
Not enough time to study towards a university degree	368	5.5	17.0
Live too far away to physically attend a university	261	3.9	12.0
Do not meet university prerequisites	109	1.6	5.0
Disability or other health issue(s)	84	1.3	3.9
Total	6,635	100.0	306.3

All alternative reasons for participating in MOOCs, expressed by those in the 'Other' category in Table 6.3, are outlined in Table 7.1. Learning new things was the most common alternative reason given, expressed by 41% of these 'Other' respondents. Many of those in this category wrote that they simply 'loved learning' and this was why they participated in MOOCs. A sense of curiosity and interest, both in the courses offered and in the MOOC concept itself, was the second most common alternative reason, articulated by 18% of respondents. Considered separate from time and geographic constraints, preference for a flexible study mode was third most common alternative reason given, voiced by 11% of respondents. This desire for flexibility was confirmed when the survey asked users whether they enjoyed the freedom that MOOCs provide, to study whenever and wherever it suits them, with 98% of all survey respondents saying they agreed with this statement. When asked if they would prefer more structure around their learning, such as set location and schedule, 74% said no.

ACCESSING THE ‘WORLD’S BEST’ EDUCATION FOR FREE

In the survey questionnaire, respondents were asked a variety of questions related to their MOOC experience to determine: (1) whether they thought they were getting the ‘world’s best’ higher education online; (2) what impact, if any, prestigious reputations of course creators had on course expectations and selection; and (3) whether having access to free and credit-less courses was considered important and motivating for a positive and successful MOOC experience. When asked to rate the overall delivery of all of the courses they had experienced, the majority (84%) of the 2,173 people who responded said that the courses they took were excellent. When asked how this compared with what they expected, 44% of the 2,114 respondents said that their experience of MOOCs had met or exceeded their expectations, while 51% said they had not known what to expect.

In terms of public appeal, survey respondents definitely recognised the marketing role of MOOCs for well-known organisations, particularly elite universities with global reputations:

- ‘MOOCs are obviously a form of advertisement.’
- ‘It’s a great advertisement for [a university’s] quality and credibility.’
- ‘This product is their “face” and maybe also an advertisement for future students.’
- ‘I think they agree to MOOCs, not just to [provide] “free education”, but to attract potential students.’
- ‘A MOOC gives better insight than a glossy prospectus into standards at a prospective place of study.’

In regards to the question on whether MOOCs offered by prestigious universities were different from other online offerings, 70% of the 1,993 people who responded said that they were different. As a consequence of reputation, courses from prestigious institutions were assumed to be of higher quality than any other online education options available:

- ‘There’s a higher trust value.’
- ‘I expect more from prestigious universities.’
- ‘They just give me the feeling that I can rely on the given information.’
- ‘If they are the world’s best, so are the courses.’
- ‘The more prestigious the universities are, the higher quality [their courses] will be.’

- 'The quality and content is clearly better and more trustworthy.'
- 'Name recognition makes me think it will have quality.'
- 'Prestigious universities are more credible, like it or not.'
- 'You get the confidence that the learning opportunity is worthwhile.'
- 'You are assured that prestigious universities will offer good course content and lecturers.'
- 'These universities usually have professors renowned in their fields; they're the best of the best. This means that they know more about the subject they are teaching.'
- 'I'd assume they would be less likely to dumb down courses.'
- 'They are motivated to prove they are the "world's best".'
- 'It gives me more confidence in the quality of the education I'm receiving.'
- 'They have their public reputation to uphold, so I would expect a high level of course content and relevancy.'
- 'If a prestigious university is putting its name on it, it should be worthwhile. Anything else would be almost false advertising. I want to believe I can trust the information I am getting.'

For respondents, if this trust were broken, and MOOCs were not delivered well or to a high standard, the potential for severe damage to an organisation's brand was huge, especially for universities. They thought it vital that prestigious providers maintained the high standards expected of them, even for people who were not actually paying for the services provided. Without such quality control, reputations would suffer:

- 'Prestigious universities can't afford to put poor quality courses online.'
- 'For their own survival, they have to prove that their traditional courses are worth the fees, in competition with cheaper universities or no university.'
- 'A badly delivered course carries the risk of reputation damage, which may feed into applications for "conventional" courses.'
- 'They are using their prestige to lure students. But if the course is mediocre, it rebounds negatively on the prestige and disappoints the student.'
- 'If a university that is famous for the quality of its education does not actually deliver a quality education, then what good is it?'
- 'I love to learn, and where else but from the best. Since it is impossible to physically go to them all, it is ideal that the best come to you. And now they can be easily compared among themselves. So each one better live up to its own reputation. A regular student would not complain about his alma mater, but a prestigious university not fulfilling a MOOC to its potential will invite a lot of flak.'
- 'They have a brand to protect. Bad apples weaken their brand and make it less likely they will maintain their "preferred supplier" status with me.'
- 'A poor course will have the potential to make the institution as a whole look foolish.'

- ‘They get massive exposure. If they suck, it will be very visible.’
- ‘With the internet, the whole world became a small village. If something is badly presented, the word will spread.’
- ‘If they mess up, quite a number of people can see it by experiencing it, and may choose not to apply for that organisation’s paying services [as a result]. So it is, to a large extent, a reputation issue.’
- ‘The course offerings reflect the public perception of the university; a poorly-delivered course from a prestigious university would make me question the quality of their on-campus courses.’
- ‘Because even a free open online course reflects the quality of the university. If a prestigious university offers me a crappy course on Coursera, for example, my opinion of that university drops considerably and I assume that is the true standard of the university.’
- ‘A poor MOOC reflects poorly on the university’s reputation. A poor reputation means fewer enrolled students in the brick-and-mortar school.’

In addition to prospective brand damage should MOOC creators fail to live up to their ‘world’s best’ claims, some respondents actually challenged the use of the ‘world’s best’ title to describe MOOC creators to begin with. This was not because they disagreed with the high standard required to live up to the name, but because they found the term elitist and superficial:

- ‘Every business states “we are the best”, “we are a world class organisation” – it is all bullshit. If you are that good, you wouldn’t have to tell anyone about it – we would already know. As a matter of fact, when some organisation uses those words, my opinion of them is lessened and I’m suspicious of them.’
- ‘I find the whole notion of universities competing revolting. It is not a fish market. Educating the world isn’t a privilege or a luxury. It is a duty.’

Others suggested that rating MOOCs according to the prestige of the organisation that created the course did not actually make sense. For them, it was not the status of the instructing institution that counted most, but the teaching abilities of its instructors:

- ‘My experience is that quality relates to how much support is provided by the university. This does not seem to strongly correlate to university prestige.’
- ‘The “prestige” of the university is unimportant to me, so long as the lecturer knows what they are presenting and do a good job of presenting it.’
- ‘Prestigious and best are hardly synonymous.’
- ‘I have seen brilliant scientists deliver mediocre courses and mediocre scientists deliver excellent courses.’
- ‘I choose the courses for the topic and not for the University. But my approach is the same as with music. It is good or bad, no matter who performs it.’

- 'I have seen first-rate courses from second-tier state schools and rubbish from Ivies (and the reverse!).'
- 'Courses from prestigious universities can be astonishingly mediocre. Courses from places I've never heard of can be very good. There's no relation between prestige and quality.'
- 'The "world's best" can still screw up just as bad as anyone else.'
- 'Even Nobel laureates can be poor teachers.'
- 'Sometimes the "world's best" is worthless if their delivery system is bad.'
- 'It is hard to take a class from a Harvard professor who consistently uses incorrect grammar. One just expects more.'
- '[Bigger universities] may ruin their reputations if courses are offered badly. The exact opposite may happen for a small university offering a great course!'
- 'I think the world's best are not [always] the world's best. Their reputations may be, their bank balance may be, but are they really the best? Some of the most interesting new types of thought processes come from smaller universities. They think outside the box, not like the large think tank flagships that the so-called "best" universities are.'
- 'I believe a local university can make as good an online course as a famous one; this is new territory and sometimes the small ones are faster to adapt – they may have less inertia.'
- 'The bigger the name of the school, the worse the course, in my experience. Maybe people want the big name, so more enrol. But they're a waste of time because the professors don't even log in and the teaching assistants know less than I do.'
- 'Reputable universities don't have a monopoly on innovative education, nor are they a guarantee of it.'

Like the survey, comments from the focus groups also demonstrated that a prestigious reputation was not necessarily what people looked for in a MOOC. As Box 6.1 and Box 6.2 highlight, in both focus groups, presentation was considered to contribute significantly to the overall impression of a course and the quality of its delivery.

Box 6.1 Importance of presentation in MOOCs: Focus group 1

ZARA: Um, one of the courses that I started doing with Harvardx was the environmental one that I stopped. And it wasn't because of the workload – I should actually add this – the lecturer was actually so bat-beat boring [*someone laughs*]. Like, he was just sitting there, droning in front of the thing. And I thought, 'Harvard – you're just doing this for your reputation. You're not even doing it because this guy is good. He's just monotonous.'

MATT: The one's I've taken at Harvard were fantastic. I mean, the lecturers were amazing, you know. So I mean, I'm definitely not saying it's a bad thing. I think whatever is going to happen, it's going to happen. You can't stop technology. You can't put it back in the box. But, I just think, uh, we'll see.

Box 6.2 Importance of presentation in MOOCs: Focus group 2

SEAN: Just on what you were saying before, um, like do you affiliate yourself with the institution, I think that's a good point. I certainly don't. And in fact, when I'm looking at these courses I don't say, 'oh, it's from Stanford, it must be good', or, 'it's from some crap university in New Zealand, I'm not going to take it'. I watch the introductory video, and the lecturer, if he or she, impresses me then I'll take the course. So, to an extent, it makes the institution a little bit irrelevant, I guess.

ELIZABETH: I'm the same. But I go entirely off what the course says it's going to teach me.

SEAN: Okay.

ELIZABETH: So I don't even bother watching the intro video when I'm choosing, I just go immediately off the topic—

SEAN: Right.

ELIZABETH: *[continues]* 'cause I pick out the topics I'm interested in.

SEAN: Yep.

MARY: I do both. I look at the introduction, look at the courses, and if the lecturer isn't delivering in a certain way—

SEAN: Yeah.

MARY: *[continues]* if I'm not feeling connected, then I know it's just going to be a waste of time for me.

SEAN: Yeah, good point.

MARY: Like I'm going to be procrastinating. I'll be less motivated to really watch the videos and do the assessments, if I'm not motivated by the lecturer.

Aside from the 'prestige factor', the 'free factor' of MOOCs was also examined in the survey and focus groups. The general lack of fees associated with MOOCs was shown to have a positive impact on 55% of the 2,161 survey respondents who answered the question on whether fees affected their personal motivation. They said they felt that the general lack of tuition fees increased their motivation to engage in and persist in a course. Even so, a further 42% said that lack of tuition fees had no effect on their motivation to participate, and the remaining 3% said that not having fees was actually a demotivating factor. Of the 2,152 people who responded to the question on financial anxiety, the vast majority (90%) said that not having to pay tuition fees for MOOCs meant that they did not have to worry about how they would finance their education. Without academic credit, though, the perceived value of the freeness of MOOCs varied. Most of respondents still felt that MOOCs held high personal value (92% of 2,160 agreed) and high educational value (88% of 2,165 agreed), but their employment value was less certain. The majority (57% of 2,127) said, that because employers still

favoured formal credentials, MOOCs would likely have low employment value. Still, some users did see MOOCs as being potentially economically empowering in that they could potentially improve job prospects, and thus earning potential, to some degree.

EMPOWERING USERS⁹

In MOOCs, empowerment has been a central focus. Not only has it been expressed as a common goal of providers in terms of improving people's lives through greater access to online education, it has also, by and large, been pitted as the ultimate intended consequence of MOOCs – at least for users. The suggestion has been that, by enrolling in MOOCs, users can connect with each other, and with new educational materials, to become empowered and intellectually enriched members of their community.

Much of the focus on whether or not MOOCs have achieved success to date has focused on traditional views of empowerment, which emphasise poverty, gender and global development, and the overlaps in between (Alsop et al, 2006; Chambers, 1993; Chung et al, 2013; Luttrell et al, 2009:2-3; Malhotra et al, 2002:3; Narayan, 2005; United Nations, 2013b). Such emphasis has also been at the forefront of criticisms about MOOCs, derided for their inability to allow prospective learners to overcome barriers posed by economic, social and political disadvantage. The basic criticism has been that, without first alleviating discrepancies in access to technological resources and more basic education at the local level, particularly for women and girls from poorer backgrounds, MOOCs would be unable to have a significant impact on democratising higher education at the global level (Bear, 2013; Craig, 2012; MacGregor, 2013; Mitchell, 2013; Petriglieri, 2013; Sharma, 2013). This kind of critique has been around since these online courses first gained international prominence. It has, however, been reinforced by more recent research which indicated that most participants of the MOOCs studied previously already had university qualifications, were male, and were living in developed countries (Christensen et al, 2013; Ho et al, 2014). Such findings implied that MOOCs were not succeeding in empowering learners because they were not being used by those for whom they were purportedly intended: people from

⁹ Note that this section draws from information presented in 'How MOOCs can empower learners: a comparison of provider goals and user experiences' by E. Longstaff, 2015, *Journal of Further and Higher Education*, doi: 10.1080/0309877X.2015.1100715. Copyright 2015 UCU. The body text has been rewritten for the purpose of this thesis, while the data included in Box 6.3 to Box 6.8 have been reproduced with permission. The article published as the version of record in the *Journal of Further and Higher Education* can be found at <http://www.tandfonline.com/>.

disadvantaged backgrounds and regions with traditionally limited access higher education, many of whom – when considered globally – are women (Christensen and Alcorn, 2014; Christensen et al, 2013; United Nations, 2013a). Since these research studies have so far demonstrated that the majority of MOOC-takers have not been educationally-deprived, living in poor countries, or female, the topic of empowerment seems to have been downplayed in more recent commentary about MOOCs. It is as though it has become irrelevant to the discussion.

However, it is critical for this study, and for the assessment of the potential of MOOCs generally, to recognise the multidimensionality of a concept like empowerment. Its scope is far broader than disadvantage and development, and its meaning can vary across contexts and people (Jupp, Ali and Barahona, 2010; Malhotra et al, 2002; Mosedale, 2005:244; Narayan, 2005:20). Often, empowerment is positioned with regards to its economic, social and political dimensions, because greater autonomy and influence in these aspects of life imbue marginalised individuals with a belief that they can participate and be heard as members of the broader community (Governance and Social Development Resource Centre, 2014; Luttrell et al, 2009:1). There is, however, another dimension of empowerment – the psychological dimension. It emphasises ‘people’s belief that they have the resources, energy and competence to accomplish important goals’ (Diener and Biswas-Diener, 2005:125; Narayan, 2005).

The focus groups carried out with two small groups of MOOC users at the ANU provided the first insight of this study as to how users may be empowered – socially, politically, economically and psychologically – by MOOCs. The most prominent finding from discussions was that not everyone viewed the general lack of fees and academic credit with MOOCs in the same way. As Box 6.3 outlines, the first focus group came to see the absence of credit and fees as demotivating forces in terms of engaging and persisting in a course of learning. There was some initial disagreement in opinion over the lack of credit in MOOCs, with Vince first saying that it was ‘one of the best things about them’ and Matt saying that it was why MOOCs had high levels of attrition, a point to which Fay and Zara expressed some agreement. Eventually, Vince seemed to adjust his views to the rest of the group, saying that credit was a strong motivating force behind persistence in educational endeavours. The ultimate consensus from the first focus group was therefore that the general lack of academic credit and fees were seen as a hindrance to increasing and prolonging participation in MOOCs.

Box 6.3 Lack of credit and fees in MOOCs as demotivators: Focus group 1

MATT: Right now, MOOCs are mostly something people do in their spare time—

FAY: Mmm.

MATT: *[continues]* as sort of, professional development, or for fun, or whatever. To be exposed to new ideas or what have you. If, or should I say, when, they become the way that you get a degree, then I think, you know, it sort of changes. Your approach to it is going to be totally different. You know, now, lots of people...you can sign up for a course and not do it. Or, with a lot of these, you can say, 'oops, I got busy for three months, now I'll come back to it half-way through and keep going'. It's much more flexible. But if it's part of a degree program, you're presumably going to lose quite a bit of flexibility, and it's going to be something that you're paying for and getting a degree from. So you're going to approach it much more seriously. So, I mean, the whole sort of paradigm changes.

VINCE: Coursera kind of had a newsletter that came out yesterday, actually. And I was reading about this guy who's, like, 21, and he's done, like, 21 MOOCs. And they helped him get, like, an internship at Google because stuff that he covered in his computer science MOOCs.

MATT: Yeah, but I think in terms of analysing MOOCs now, you can say, 'well actually, lots of people don't finish them'. And I'm sure the finishing rate is very low, you know, but is that something intrinsic about MOOCs themselves?

FAY: Mmm.

MATT: Or is it just that people are doing it, you know, for fun?

VINCE: Well that's one of the best things about them, right, is that you don't kind of have a transcript. That you don't have like, a list of—

MATT: Right.

VINCE: *[continues]* a list of, 'oh you did good there'.

MATT: *[interrupts]* And so I just think that makes it difficult to sort of analyse what is a MOOC and how do students, you know...Is there going to be a problem with participation—

ZARA: Yeah.

MATT: *[continues]* when you're looking at something that's just a spare time activity?

... *[later on in the discussion]* ...

MATT: I would say that it's not just that they're not at a university. I think it's that, right now, the model hasn't come together to make that economically viable sort of activity. And if it does, I think it may change the result.

VINCE: Well, I mean, if you can't get credit for it. Like, that's the thing. I mean, as far as I remember, you know, you're kind of told to go to school, sit down and listen to your teacher because you know that there's a payoff; there's a pot of gold at the end of this rainbow. And, like, eventually you finish and you're like, 'great'. Then you start uni. Then after that, you realise, 'I need a masters' or like, you know, 'I need a PhD'. But you know that there's a pot of gold somewhere at the end of the rainbow *[Matt laughs]*. There has to be! Otherwise why are you doing this?

The second group, as Box 6.4 demonstrates, seemed to come to the opposite conclusion about credit and fees. Sean first showed signs of scepticism around the

extrinsic value of MOOCs. He later appeared to be persuaded by the opinions of Elizabeth and Mary, each of whom thought MOOCs had definite extrinsic value, regardless of whether they had credit or fees attached to them or not.

Box 6.4 Lack of credit and fees in MOOCs as motivators: Focus group 2

ELIZABETH: Well, personally, I've always been frightened of mathematics. Because I do kind of suck at it, and that's why I avoided it and ran away from it. And having a setting where failure was not the end of the world gave me the confidence I needed to actually get into it and do my best and actually try. I had actually considered auditing some maths classes here at ANU, when I realised how much I actually sucked. But, that still cost upwards of 200 bucks to actually be able to sit in on the course. And the idea that I could invest 200 bucks and still panic and fail and do poorly was far more off-putting than thinking, 'well I could start this course, and if I really just can't hack it and can't keep up, that's okay'. Also, there's more flexibility in terms of the time, so if I can't keep up, I can fail the course but continue to follow it and save all the materials and go through it at my own pace later. Which is not usually an option with a course where you pay. They like to hang on to their materials and stuff like that.

EMILY/FACILITATOR: So if you're not investing money into it, you're still investing your time?

ELIZABETH: Mmm.

... [later on in the discussion]...

MARY: It would make a difference if I was paying for the course because that's an additional investment. Right now, it's my choice of investment of time. The course that I've just started is actually relevant to this semester's unit that I'm doing, and it helps me to revise. It's almost exactly the same as what I'm learning on campus [Mary and Sean both laugh] but it's done over four weeks and at a different uni in The States. It's assessable, but it actually just gives me more practice around the concepts, answering exam questions or quiz questions. And that helps me to get my extra practice for my real stuff, at uni—

SEAN: [interrupts] Yeah, right.

MARY: [continues] without being penalised if I get stuff wrong [laughs]. And, you know, if you get something wrong, you tend to learn more from it.

SEAN: Yep.

MARY: But, if it's something that really counts, if you get it wrong, well, you get it wrong. And that may impact your final—

ELIZABETH: [interrupts] That was a big thing for me too.

MARY: Mmm.

ELIZABETH: The lack of awful consequences if you get it wrong.

MARY: Yes.

ELIZABETH: It gives you the confidence to actually try things.

That an absence of fees and credit could have both positive and negative influences on engagement and persistence in learning was an unexpected finding from the focus groups. Certainly, the freeness of MOOCs has always been one of the main points of

their marketability for empowerment. This is in the sense that, by being free, MOOCs could help disadvantaged people overcome financial barriers to accessing higher education (Agarwal, 2013; Koller, 2013a; 2013b; Kornwitz, 2013; Metz, 2013). However, that MOOCs could produce positive psychological impacts on even those who already have access to higher education was a matter not previously discussed. In placing emphasis on the social and the economic benefits of MOOCs, providers geared themselves towards more conventional dimensions of empowerment. As Box 6.5 and 6.6 show, the two focus groups did discuss the social and economic impacts of MOOCs. The conclusion of both groups, however, was that the potential benefits in these areas were likely to be less than could be achieved through more traditional, face-to-face university education.

Box 6.5 Social experience of MOOCs compared with university: Focus group 1

ZARA: They record all the lectures at ANU that I go to. But I always go to them because I like to be the person who sticks my hand up and, you know, has a question, you know, to re-emphasise. And usually, because I talk to the students around me in the lecture theatre at the time, and we all want to ask this question but, usually, I'm the one that asks it. So, you can't really do that in a MOOC. You can do that in a forum, but it can be missed. The lecturer can scroll past it. But in a real life lecture theatre, you can see a hand go up, you know, and you're making eye contact with that person straight away. I suppose there is that element, the human aspect. The contact, I suppose, which I can see would be a bit of a fear factor for some universities. Whether that would take it away or whether it's their role to actually be facilitating that or not...it's still a big question.

MATT: I was talking to a professor here about, you know, wasn't it going to sort of undermine the university. And he said he's not worried about it, because as long as teenagers have hormones, they're going to want to come to college, or whatever. Right? *[everyone laughs]* And I think, beyond that sort of joking point, there is that whole sort of socialisation aspect of going to university. That's a big part of growing up and whatever now, and if lots of people were just doing it online and staying in their communities and staying at their parent's house...

FAY: Mmm.

... [later on in the discussion] ...

VINCE: But I mean, what's the incentive of going to Harvard if you're like, getting the same education.

MATT: Online?

FAY: Through a MOOC?

VINCE: Yeah.

MATT: Because you want to meet other—

VINCE: *[laughs]* Other young people.

MATT: *[continues]* other elite movers and shakers. I mean, I think universities are going to keep going, just for those reasons...because you do get something extra from going on campus.

Box 6.6 shows how the second focus group also discussed the social aspects of MOOCs compared with the social aspects of learning, in person, at a university.

Box 6.6 Social experience of MOOCs compared with university: Focus group 2

EMILY/FACILITATOR: If the new generation is coming, and if they're sort of tech-savvy, what do you think about people when they first come to university? What are they trying to get out of university that they might not get out of MOOCs?

ELIZABETH: The formal qualification is definitely a big motivator. The old creed of 'P's get degrees'.

SEAN: Yeah. I guess the personal interaction that you can't get right now online. So the face to face...real life discussion forums and meetings where you sit in a group and everyone throws ideas around. You still can't get that, reliably, from an online course. I've done a bunch of courses where they have – they call them 'hangouts' – where everybody checks in to something like Skype, and you kind of take it in turns to talk about the last lecture. But it doesn't really work. Well, in my limited experience, it hasn't really worked.

EMILY/FACILITATOR: Why is that?

SEAN: I guess it's a combination of things. Even something as trivial as when you've got an online video chat, there is always a bit of a delay when someone else talks. And if you've got 20 people trying to have a conversation, all those little delays add up and it really kind of stunts the conversation, so you don't know when it's your time to speak.

ELIZABETH: That awkward moment when five people chime in at once.

SEAN: Yeah. And then after that, there's like five minutes of silence. And you can't...You're not looking at the people, you're not taking these visual cues like you do in real life where you kind of think, 'oh, they're about to wrap up their sentence – I'm going to jump in without being rude, I'm not going to interrupt'. But when there's an online thing, I guess you've still got that kind of, yeah, like, it's a bit more difficult.

EMILY/FACILITATOR: So in terms of interaction then, what role do you think place has in terms of being a student? Like what do you think is the difference between 'being a student' and 'going to university'?

ELIZABETH: I've noted a difference among my peers, at least in honours. And I can only speak from my honours experience, between those who came in to work in the honours room every day and those who stayed home and suddenly turned up for the exams and coursework – you'd never seen them before. The people who were on campus tended to seem way more involved and to simply enjoy the process a lot more. But that being said, in the end, the grades, in terms of metrics of how people succeeded, were about equal. So I think a lot of it is to do with what kind of experience are you after. Are you after being in the place, and being with the people? Or are you simply after the knowledge in a more cold, clinical way?

SEAN: Yeah. That's interesting. I guess a lot of people go to university, not to learn but just to hang out with people. Like a lot of my friends went to uni and did a crap degree that they didn't care about, and they spent most of their time at the pub, playing pool and drinking beer. And they loved it. Had the time of their life. And obviously, you can't do that online.

EMILY/FACILITATOR: So you're saying there's different ways that people value—

SEAN: *[interrupts]* I'm saying a lot of people go to university not to learn, per se, but just to have that social interaction. And also, to an extent, to network with people. Maybe it's more subconscious, but you want to meet a lot of people in your field, and then down the line they might give you a job. Stuff like that.

In addition to the issues around social interaction, the two group discussions also touched on the impact that MOOCs may have on future employability. Participants indicated that the inclusion of completed MOOCs on one's resume may enhance one's

career prospects and hence, their earning potential. However, as Box 6.7 shows, what the first focus group proposed was that while MOOCs may have some positive prospects for career enhancement, such benefits would likely to be limited to certain fields where necessary skills were more easily and objectively defined.

Box 6.7 Career enhancement through MOOCs: Focus group 1

VINCE: To answer your direct question about whether I'd put it on my resumé, well, if the person I'm like interviewing for, the person I'm giving my resumé to, cares that I've done a MOOC, then definitely. So I think that's going to happen, like, in the next couple of years.

MATT: *[interrupts]* Yeah, I think people are already. Especially if it's a technically measurable skill and you can say to someone that you passed and that you did a satisfactory job. I think it shows that you're interested.

ZARA: Yeah.

MATT: And still learning. But I wouldn't put it on the top of your resumé, I don't think, but like—

ZARA: Mmm.

MATT: *[continues]* I think it's already sort of viable.

FAY: It shows that you've maintained your—

ZARA: *[interrupts]* your interest and that you're enthusiastic. Especially if you say 'I've done *[inaudible]* MOOCs'. I mean, that would look good on a resumé. Because that shows that you're committing to something, even though you don't have to.

The potential economic benefit of MOOCs in relation to enhanced career prospects was reiterated by the second focus group. As Box 6.8 illustrates, successful completion of MOOCs was seen as an indication of initiative that could be viewed favourably in job recruitment processes. Overall, however, it was suggested that, without the ability to interact with others face to face, and have learning outcomes recognised as legitimate qualifications, MOOCs would never be able to match the social and economic benefits afforded by traditional university education. According to the participants of both focus groups, university degrees were still seen as the main requirement for pursuing higher-level jobs, with higher incomes. While participants did say there might be potential for MOOCs to be viewed favourably by prospective employers, they suggested that it would likely only be in addition to formal qualifications, such as university degrees. What these comments suggest is that, on the whole, focus group participants regarded access to higher education through MOOCs as less socially and economically empowering than what could be achieved by attending university.

Box 6.8 Career enhancement through MOOCs: Focus group 2

SEAN: Well, I mean, you're learning obviously. Like, you wouldn't do it if you didn't want to learn. And... a lot these...you don't get a certificate or anything like that. Some of them have a glorified certificate of accomplishment, but it means nothing. You can't put it on your resumé. People just do it because they want to learn. It's not so you can tell your employer that you've got some accreditation.

ELIZABETH: Although, to some degree, I think you can put it on your resumé in that it shows that you are interested in developing yourself.

SEAN: Okay.

ELIZABETH: So the fact that you've done courses and you've got the course names doesn't really matter. It's an indicator that shows that you're willing to develop. And, I think, if you're interested in going into academia, knowing about this stuff might be a bit more important as you go through the years.

SEAN: That's a good point. Yeah.

... [later on in the discussion]...

ELIZABETH: But do employers even look at that once you've got your job, or do they just look at the fact that you have a degree or don't have a degree?

SEAN: I have no idea.

MARY: I find that, well, when I went through the job interview process, with your academic transcript they go, 'okay, you did fairly well', that gets you through the door. But once they actually talk to you, they're more interested in you as a person; how motivated – how self-motivated – you are; do you work well as a team player...

... [later on in the discussion]...

EMILY/FACILITATOR: So I guess that comes back to, yeah, whether you would put it on your resumé or not?

MARY: I'd definitely. When I'd go for job interviews...the things that they're looking for is, 'well, what else do you do besides university? What motivates you? And how can you tap into those skills that you've learned?' And I think, if you can demonstrate that you're self-motivated, and want to keep on learning, that you have this drive, then of course it's useful to bring it in to the conversation. You don't just stop learning once you graduate.

Despite the fact that focus group respondents did not explicitly discuss political empowerment, it was included in the scope of questions on empowerment in the online survey questionnaire alongside the other dimensions for the sake of holistic conceptual analysis. Out of the people who responded to the five survey questions dedicated to measuring these different dimensions, 91% expressed a sense of psychological empowerment, saying that participating in MOOCs made them feel more confident in their abilities. Economic, political and social dimensions of empowerment featured less strongly, with 69% of respondents saying that they thought they could improve their job prospects through MOOCs, 56% confirming that MOOCs allow them to make their views heard, and 39% seeing MOOCs as a way to foster relationships with others (online or offline). Because MOOC providers' mission statements emphasised education as the source of empowerment from MOOCs, a fifth item on empowerment was also included in the questionnaire in an effort to measure its 'educational' dimension. This item resonated

strongly with the vast majority of respondents, with 93% saying that MOOCs allowed them to have control over their education.

The composite sense of empowerment scale comprising all five dimensions, increasing in strength from 1 (weak) to 4 (strong), produced a mean score for all survey respondents of 2.84. The scale, discussed in Chapter 4 and Appendix VIII, was further analysed with demographic variables using the Pearson correlation coefficient (see Table 6.4). Strength of the relationship between variables was then assessed according to established guidelines, in which Pearson correlation values between .010 and .090 have been taken to indicate a very small or trivial relationship between two variables, and values between .100 and .290 thought to indicate a small/low linear relationship. Values between .300 and .490 have been further suggested to indicate a moderate linear relationship, and values between .500 and .690 a large or substantial linear relationship. Any values above .700 have been regarded as a sign that the linear relationship between two variables is very large or very strong (Cohen, 1988:79-81; de Vaus, 2002:259).

Table 6.4 Correlation coefficients for sense of empowerment among survey respondents

Variable being compared ^a		Sense of empowerment
Age	Pearson Correlation	-.071**
	Sig. (2-tailed)	.001
	N	2,137
Sex	Pearson Correlation	.008
	Sig. (2-tailed)	.728
	N	2,130
Qualification	Pearson Correlation	-.072**
	Sig. (2-tailed)	.001
	N	2,113
Country of residence	Pearson Correlation	-.146**
	Sig. (2-tailed)	.000
	N	2,152
Employment status	Pearson Correlation	.010
	Sig. (2-tailed)	.663
	N	2,100
Perception of choice in life generally	Pearson Correlation	.168**
	Sig. (2-tailed)	.000
	N	2,147

^a . See Appendix VII for specific coding of variables used in analysis.

* . Correlation is significant at the .05 level (2-tailed).

** . Correlation is significant at the .01 level (2-tailed).

In accordance with the guidelines, age was shown to have a fairly weak negative correlation with sense of empowerment ($r = -.071$, $n = 2,137$, $p < .010$). Despite the

relationship being rather small, it is still significant and, thus, unlikely due to chance. Since sense of empowerment increased in strength as scores increased from 1 to 4, it can be said with some confidence, therefore, that as age increased, sense of empowerment slightly decreased. Figure 6.1 confirms this downward trend.

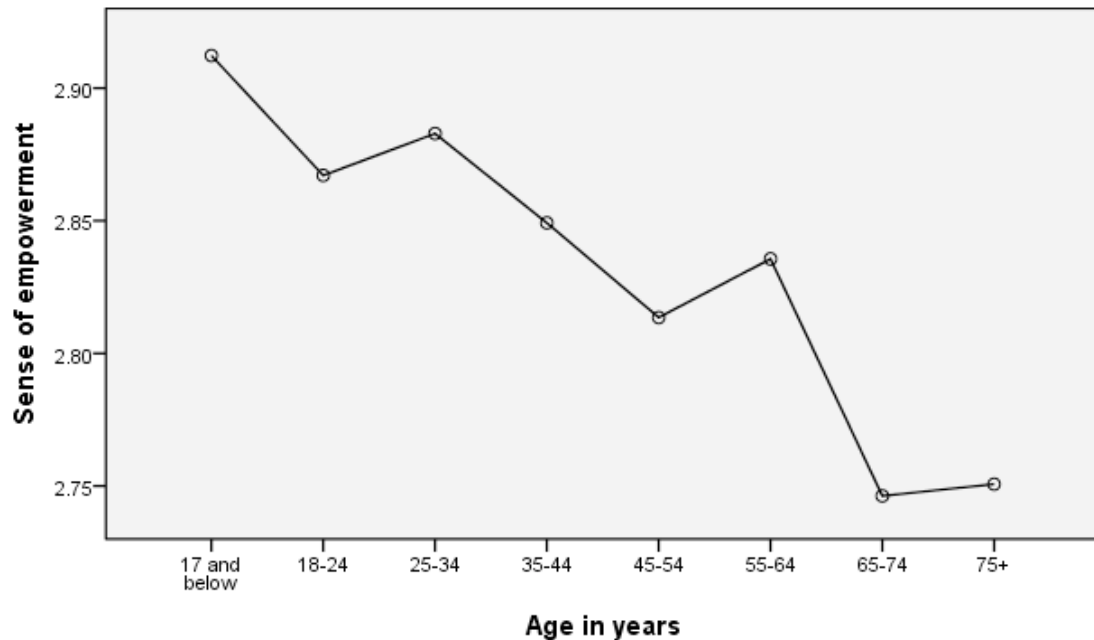


Figure 6.1 Sense of empowerment among survey respondents by age

Qualification, measured in terms of whether or not a respondent had completed a university degree (coded as 1 = No, 2 = Yes), was shown to also have a very small negative correlation with sense of empowerment ($r = -.072$, $n = 2,113$, $p < .010$). Given the increasing direction of the empowerment coding, it can therefore be concluded that empowerment had an inverse relationship with level of qualification, and that those with university qualifications were slightly less likely to feel empowered by MOOCs than people without university qualifications.

Country of residence, in terms of level of development, was likewise shown to have a small negative correlation with sense of empowerment ($r = -.146$, $n = 2,152$, $p < .001$), meaning that empowerment was inversely related to level of development. In other words, respondents living in the more developed regions of the world (coded as 2) were somewhat less likely to feel empowered by MOOCs than those living in the less developed regions (coded as 1). When viewed by geographic region, respondents living in Asia, Latin America and the Caribbean, and Africa were shown to have higher mean empowerment scores (2.92, 3.02 and 3.07 respectively) than those living in Oceania, Europe and North America (2.69, 2.77 and 2.83 respectively).

Perception of choice in life generally, a proxy for overall empowerment not specifically related to MOOCs, was shown to have a small positive correlation with sense of empowerment ($r = .168, n = 2,147, p < .001$). With the choice scale measuring in the same direction as the empowerment scale, it can be concluded that those who felt like they had a high degree of choice in their lives as a whole were also likely to feel empowered by MOOCs. No significant relationship was found between sense of empowerment and sex or employment status.

To further assess the ability for all six variables to predict sense of empowerment, standard linear regression was conducted using the sense of empowerment scale as the dependent variable (see Table 6.5). The two independent variables with the largest standardised coefficients, and thus largest predictive capabilities, were country of residence grouped by level of development ($\beta = -.136, p < .001$) and perception of choice in life generally ($\beta = .178, p < .001$); the former once again indicating an inverse relationship with empowerment, the latter indicating a direct relationship. As the total variance explained by the model as a whole was under 6%, further analysis was required to determine what other factors were influencing sense of empowerment.

CONNECTING USERS

In contrast to the *act* of interacting, or the opportunity to interact and expand social networks, connection has been conceptualised here as the overall *feeling* of attachment (or lack thereof) that comes from interacting – with content and with other users – via the medium of MOOCs. Though not explicitly prompted on the topic of connection, the first focus group did discuss engagement in various learning settings. Summarised by the quotes in Box 6.9, the conversation centred on comparisons between the online learning environment of MOOCs and the physical learning environment of a traditional classroom. The suggestion was that MOOCs may have been lacking the kind of ‘full body’ experience associated with classroom learning, but that this has not necessarily meant that learners have been less ‘present’ in the learning process. Instead, people in traditional in-person lecture settings may have been more likely to miss out on aspects of the learning experience, either through distraction or simply because of the synchronous nature of discussion. As asynchronous learning environments, MOOCs, by contrast, have enabled people to rewind and review content at their own leisure, and even at their own chosen speed. This has let users ask questions and view answers in the discussion forums at any given time.

Table 6.5 Standard linear regression coefficients for sense of empowerment among survey respondents

Model ^a	Unstandardised Coefficients		Standardised Coefficients		t	Sig.	95.0% Confidence Interval for B			Correlations			Collinearity Statistics	
	B	Std. Error	Beta				Lower Bound	Upper Bound		Zero-order	Partial	Part	Tolerance	VIF
(Constant)	2.845	.077			36.773	.000	2.693	2.997						
Age	-.001	.001	-.033		-1.409	.159	-.002	.000		-.071	-.031	-.030	.835	1.198
Sex	.008	.021	.008		.366	.714	-.033	.048		.008	.008	.008	.985	1.015
Qualification	-.080	.027	-.070		-3.008	.003	-.132	-.028		-.072	-.066	-.065	.860	1.163
Country of residence	-.138	.023	-.136		-6.054	.000	-.183	-.094		-.146	-.133	-.130	.906	1.103
Employment status	.028	.022	.029		1.310	.190	-.014	.071		.010	.029	.028	.923	1.083
Perception of choice in life generally	.046	.006	.178		8.230	.000	.035	.057		.168	.179	.177	.982	1.019
Model summary ^c														
R					R Square		Adjusted R Square			Std. Error of the Estimate				
.240 ^b					.058		.055			.46641				

^a . See Appendix VII for specific coding of variables used in analysis.^b . Predictors: (Constant), Perception of choice in life generally, Sex, Country of residence, Employment status, Qualification, Age.^c . Dependent Variable: Sense of empowerment.

Box 6.9 Comparison of online & face-to-face learning environments: Focus group 1

FAY: There's something interesting too, isn't there, about learning being seen as something entirely cerebral, or something of the body as well. So when you're at university, in a lecture—

MATT: Yep.

FAY: *[continues]* I mean, yes, by and large, you're still engaging these organs and the brain, but actually there's a whole lot going on...unspoken, unknown, undefined, by being a body in a space with other bodies. And, I mean, it's just a different experience. There's a whole other dimension to learning that occurs, I think, through that as well. And with the MOOCs, or online stuff or whatever, it's really a sort of narrow band of targeting the learning to just the cerebral.

VINCE: Actually, I think it's really interesting that you mention that. Because usually when I'm in a lecture, if I have my laptop on me, I'm usually like on Facebook or doing something else. So I basically don't listen to the lecture. Whereas if I'm in my room, and I decide to do a MOOC, then it's, you know...it's basically like, instead of being the distraction, it's the mode of delivery.

ZARA: Do you think that's because you can choose? Like, just the fact that the choice is there? Like, you know, if you don't listen to lectures you can go, 'oh, it's okay, I can just go listen to the recording', whereas with the MOOC, you have no choice – that is it. The recording is the single option that you have, so you have to be focused.

VINCE: Also, one thing that I like about MOOCs, obviously, which is what I hear from numerous people, is that I can basically go back and scan, I can look at the recording – which is the only thing that I have as reference when I'm doing questions or whatever. So, like, I think that's an improvement over a lecture. Because a lot of the lectures I go to, even though they're recorded, there's a lot of stuff that happens on the board. And a lot of stuff that...the teacher tells the students.

ZARA: That's true.

VINCE: Which is good, you know. But if I don't go, then I'm missing out on that.

ZARA: And there's questions that students ask that you can't hear on the recording.

VINCE: Yep.

FAY: Mmm.

ZARA: That are way off in the distance. And you're like, 'okay...what was the question?' *[laughs]*

Evidently, the benefits afforded by asynchronous delivery have not meant that MOOCs have become inherently better learning resources for all learners. As per the second focus group's discussion highlighted in Box 6.10, their suitability has become dependent on the type of learner and their learning goals. Together, the two focus group discussions indicated that MOOCs presented both opportunities and challenges when it came to connecting users. They suggested that users have had the potential to become more closely entwined with educational materials in MOOCs than they might have otherwise been in a physical classroom or lecture, simply because of the asynchronous nature of the learning process and the record of discussion in the course forums. Basically, users have had the potential to become more 'connected' – to content – on an informational level. Meanwhile, the prospect of 'connecting' – to other users – on an emotional and social level, has presented much more of a challenge.

Box 6.10 Comparison of online & face-to-face learning environments: Focus group 2

SEAN: Obviously there's pros and cons. I like talking to people and asking them about stuff. That's how I do most of my learning. So I do find that if I just watch the video lectures and someone's speaking to me, and I'm just passively learning, I don't take that much in. I have to work through the problems or jump on the discussion forum and say to someone, 'I didn't really understand that', and someone will break it down for me in different words. Um, yeah. So I dunno. I suppose you still get that interaction. Not verbally, but on the discussion forums.

... [later on in the discussion]...

ELIZABETH: I was a curmudgeon as an undergrad and I'm a curmudgeon as Coursera person. I'm not in it to socialise, I'm there to learn the stuff.

SEAN: Sorry, I don't know what you just said. You're a what?

ELIZABETH: I'm a curmudgeon, so I'm grumpy.

SEAN: Oh, okay.

ELIZABETH: I didn't socialise at all in undergrad. I was here for the learning. And I socialise as part of my PhD. But for this stuff, I don't really want to socialise. I just want to learn the stuff.

EMILY/FACILITATOR: So on that side of things, when we talk about campus and social interaction and everything, do you think if there was the option of a MOOC degree, like a short free degree, would you take it?

ELIZABETH: Hell yeah!

MARY: Yeah I know that second time-round back at uni, I'm not here to socialise. I'm paying for the course. I know exactly what I want to do.

As with the sense of empowerment scale, comparative analysis was done using the sense of connection scale (see Table 6.6). The scale was developed from 11 different measures of group identity and community, as discussed in Chapter 4 and Appendix IX.

When compared with age, sense of connection was shown to have a positive correlation, albeit a very weak one ($r = .058$, $n = 2149$, $p < .010$). Given that sense of connection increased as scores increased from 1 to 4, and age likewise increased in number, on the whole, it can therefore be concluded that as age of respondents increased, so too did their sense of connection (see Figure 6.2).

The comparison of sense of connection with sex (coded as 1 = Male, 2 = Female) resulted in a small negative correlation between the two variables ($r = -.105$, $n = 2,142$, $p < .001$). Based on the direction of coding of both variables, the negative relationship means that respondents who identified as female were more likely to have a lower sense of connection than were respondents who identified as male. This observation was confirmed by a review of the mean sense of connection scores of females and males, listed as 2.50 and 2.61 respectively.

Table 6.6 Correlation coefficients for sense of connection among survey respondents

Variable being compared ^a		Sense of connection
Age	Pearson Correlation	.058**
	Sig. (2-tailed)	.007
	N	2,149
Sex	Pearson Correlation	-.105**
	Sig. (2-tailed)	.000
	N	2,142
Qualification	Pearson Correlation	-.030
	Sig. (2-tailed)	.161
	N	2,121
Country of residence	Pearson Correlation	-.168**
	Sig. (2-tailed)	.000
	N	2,161
Employment status	Pearson Correlation	-.001
	Sig. (2-tailed)	.972
	N	2,108
Identification as a MOOC user	Pearson Correlation	.126**
	Sig. (2-tailed)	.000
	N	2,190
Sense of empowerment	Pearson Correlation	.611**
	Sig. (2-tailed)	.000
	N	2,178

^a . See Appendix VII for specific coding of variables used in analysis.

* . Correlation is significant at the .05 level (2-tailed).

** . Correlation is significant at the .01 level (2-tailed).

Country of residence measured by level of development (coded as 1 = Developing regions, 2 = Developed regions) was also shown to have a small negative correlation with sense of connection ($r = -.168$, $n = 2,161$, $p < .001$). Based on the coding of the variables, it can be concluded that sense of connection had an inverse relationship with level of development. In other words, respondents living in the less developed regions of the world were likely to have a stronger sense of connection than those living in the more developed regions. Viewed by geographic region, respondents living in Europe, Oceania or North America were shown to have lower sense of connection scores (2.45, 2.50 and 2.52 respectively) than those living in Asia, Latin America and the Caribbean, and Africa (2.68, 2.71, 2.79 respectively).

Identification of self as a MOOC user (coded as 1 = Other, 2 = Student of the MOOC provider) had a small positive correlation with sense of connection. Given the increasing direction of the sense of connection scale, it can be concluded that those who identified most prominently as a student of the MOOC provider (as opposed to a general learner or a student of the instructing university or organisation) were likely to have felt connected to their MOOC peers.

The most substantial relationship for sense of connection, though, was with sense of empowerment, for which there was a strong positive correlation ($r = .611$,

$n = 2,178$, $p < .001$). As both of these scale measures increased in strength as scores progressed from 1 to 4, it can be concluded that when respondents felt connected to other MOOC users they were likely to also have felt empowered by MOOCs. In contrast, completion of a university qualification and employment status were shown to have no significant relationship with sense of connection.

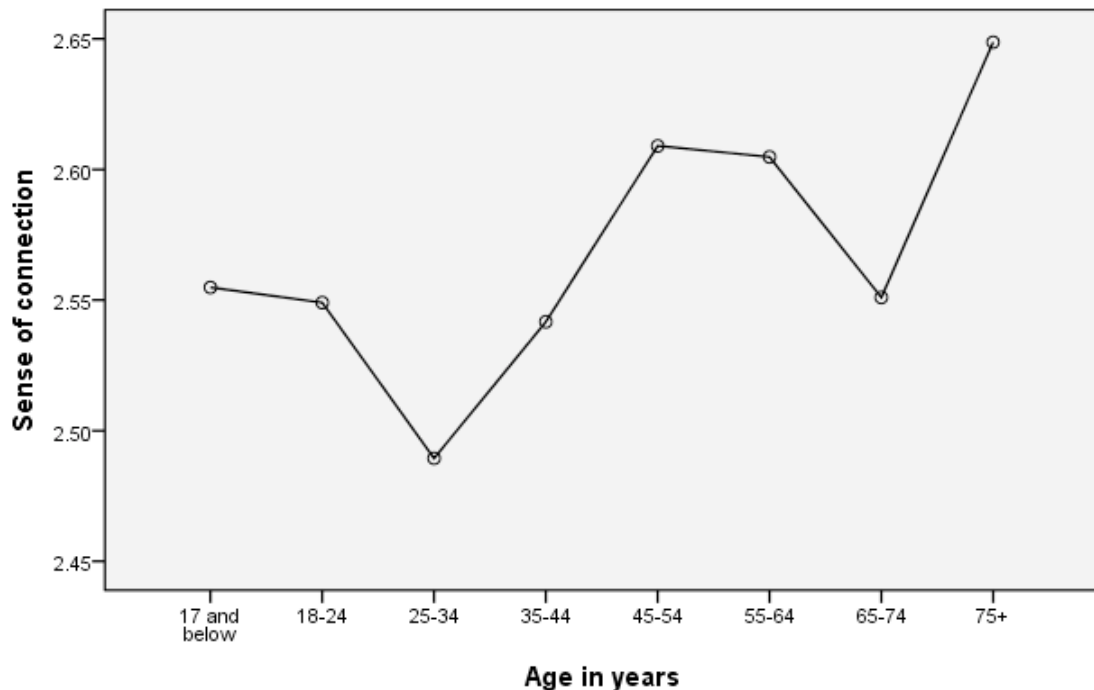


Figure 6.2 Sense of connection among survey respondents by age

The ability for all six variables to predict sense of connection was assessed using standard linear regression, with the sense of connection scale as the dependent variable (see Table 6.7). The three independent variables with the largest standardised coefficients, and thus largest predictive capabilities, were country of residence by level of development ($\beta = -.110$, $p < .001$), age ($\beta = .136$, $p < .001$) and sense of empowerment ($\beta = .597$, $p < .001$). Given the variable coding outlined previously, these beta values indicate, once again, that sense of connection was inversely related to the level of development of respondents' country of residence, but directly related to age and sense of empowerment. The total variance explained by the model as a whole was 41%, suggesting that sense of empowerment – with its strong correlation with sense of connection and large portion of the regression model – was a key predictor of sense of connection, and vice versa.

Overall, the average score of all survey respondents on the composite connection scale (with 1 being low sense of connection and 4 being high sense of connection) was 2.55. As the distribution of scores in Figure 6.3 shows, the majority of

users had scores above 2, and some as high as 4. Evidently, while it may not have been the same for everyone, there were respondents who claimed to have a strong sense of connection to other MOOC users.

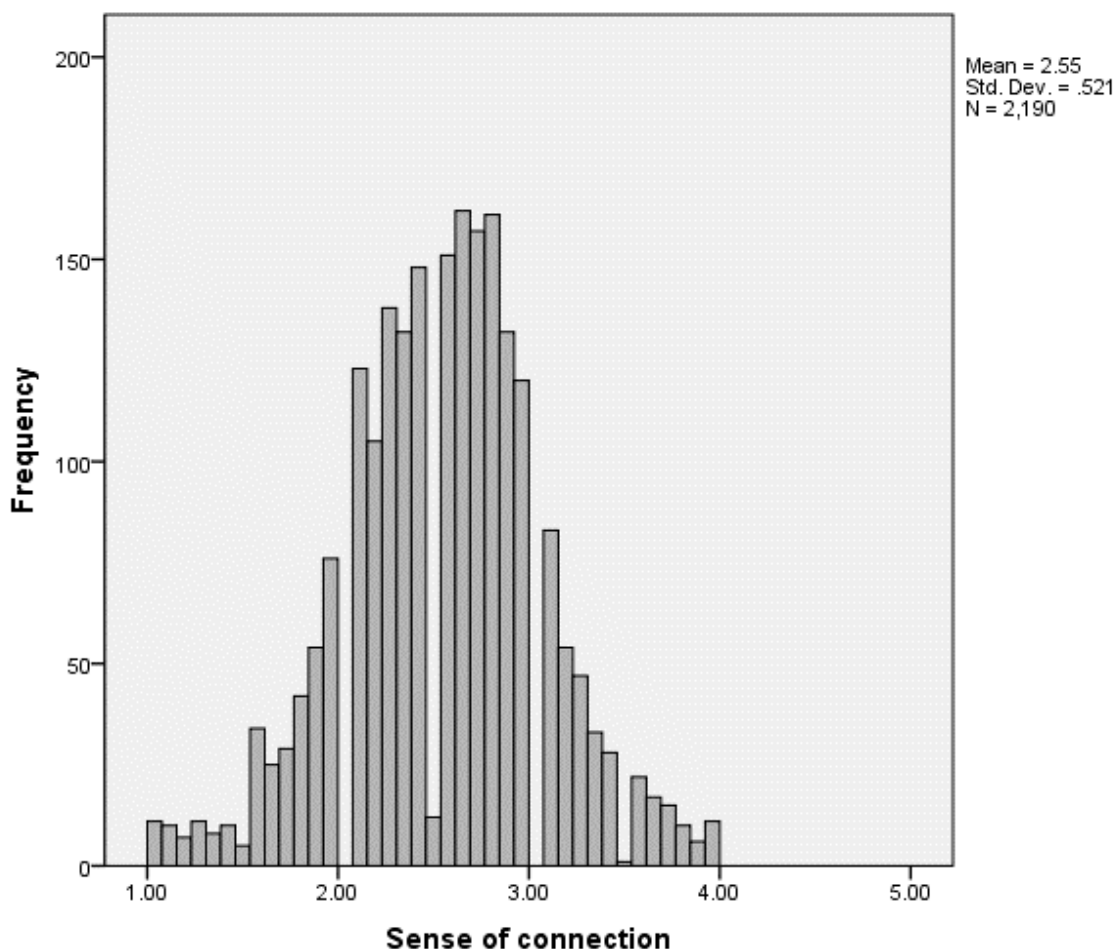


Figure 6.3 Distribution of sense of connection scores among survey respondents

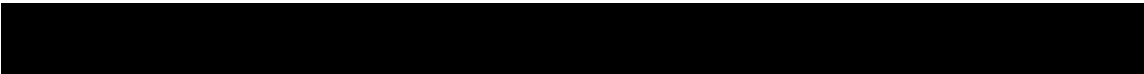
CHAPTER SUMMARY

This chapter has presented data from the focus groups and the online survey to show how MOOC users' attitudes and experiences have compared with the intended consequences of the MOOC movement, as depicted in the mission statements of MOOC providers. Data gathered on sense of empowerment and sense of connection, the importance and presence of 'anywhere, anytime' learning, and the value and perception of free online education from the 'world's best', reveal that MOOCs have succeeded for the most part in these areas, but that some issues have warranted further consideration. This need for an elaboration of findings has formed the basis of Chapters 8 and 9, presented after the examination of unintended consequences in Chapter 7.

Table 6.7 Standard linear regression coefficients for sense of connection among survey respondents

Model ^a	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	95.0% Confidence Interval for B			Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound		Zero-order	Partial	Part	Tolerance	VIF
(Constant)	.879	.085		10.330	.000	.712	1.046						
Age	.004	.001	.136	7.312	.000	.003	.005	.058	.160	.124		.840	1.190
Sex	-.104	.018	-.099	-5.803	.000	-.139	-.069	-.105	-.127	-.099		.983	1.017
Qualification	-.021	.023	-.017	-.900	.368	-.066	.024	-.030	-.020	-.015		.858	1.165
Employment status	-.015	.019	-.014	-.781	.435	-.051	.022	-.001	-.017	-.013		.924	1.082
Country of residence	-.121	.020	-.110	-6.098	.000	-.160	-.082	-.168	-.134	-.104		.890	1.123
Identification as a MOOC user	.056	.019	.052	3.023	.003	.020	.093	.126	.067	.051		.975	1.026
Sense of empowerment	.648	.019	.597	34.373	.000	.611	.685	.611	.605	.584		.957	1.045
Model summary ^c													
R				R Square				Adjusted R Square				Std. Error of the Estimate	
.639 ^b				.409				.407				.40103	

^a . See Appendix VII for specific coding of variables used in analysis.^b . Predictors: (Constant), Sense of empowerment, Sex, Employment status, Age, Identification as a MOOC user, Country of residence, Qualification.^c . Dependent Variable: Sense of connection.



7. The unintended consequences of the MOOC movement: Beyond provider goals

Whereas the online survey was primarily used to examine user views and experiences in relation to the intended consequences of the MOOC movement, as espoused by the common goals of MOOC providers, the unintended consequences were chiefly measured through the observation of user interaction on official course forums. Both positive and negative unintended outcomes of MOOCs have been identified as a result of this observation.

POSITIVE UNINTENDED CONSEQUENCES

Self-help

Despite positing themselves as academic enterprises equivalent to high-quality university-level courses, MOOCs certainly appealed to some users with distinctly non-academic aspirations. When asked about all of their reasons for participating in MOOCs, 539 survey respondents declared that they had motivations separate from the list of options presented, which had been intentionally designed to reflect provider goals. Among those who expressed ‘Other’ reasons (shown in Table 7.1), 7% of respondents said that their participation in MOOCs was to help them improve themselves, physically, emotionally or psychologically, in some capacity. Another 7% made specific reference to their participation being due to a desire to stimulate brain function and ward off dementia.

The official course forums demonstrated similar desires for improvement exclusive of academic achievement. For example, on Coursera and edX, certain psychology MOOCs were shown to be hubs for people expressing a need to better

understand and manage mental health and substance abuse issues, of their own or of someone they cared about. Likewise, nutrition courses were seen by many as an effective way to establish a plan for losing weight or realising a healthier diet. As one participant exclaimed:

I [started a] diet plan [one] year ago and I lost about 25kgs. Now I am 80kg and I am 165cm [in] height. But these [days], I can't control my appetite and I always crave for sugars, chocolate and other processed food...how can I stop this? (Participant of Coursera's *Nutrition, Health and Lifestyle*, 2014).

Students of Coursera's psychology course, *The Addicted Brain*, taught by staff at Emory University, were equally candid about their reasons for enrolling. As one participant said:

I was hoping to gain some insight as well. I'm a recovering heroin/meth/cocaine addict. I chose to join this course because maybe I'll learn something about myself and why I chose to pick up [drugs] in the first place (Participant of Coursera's *The Addicted Brain*, 2014).

Many other participants expressed similar reasons for enrolling. For instance:

Personally, I am an addict and I am currently in treatment for addiction so [I am] very interested in this course and how the brain works. I am going to learn as much as I can, but I also know I'm very new in recovery and this stuff is triggering. And I'm in treatment during the week, so I will not be able to listen and do everything, but I want to learn as much as I can and hopefully give my experience to others of what it is like to struggle with addiction. Once I get out of treatment, I will likely be more engaged and participate more in the course. I want to learn, but I also want to share my side as well (Participant of Coursera's *The Addicted Brain*, 2014).

Motives for enrolment expressed by participants of *The Science of Happiness*, a psychology course offered on edX and taught by staff at the University of California, Berkeley, demonstrated similar candour. According to one participant:

It is nice to know that other people dealing with depression are participating in the class. I've experienced major depression too, as well as chronic low grade depression....You [have] made another person feel more comfortable with this course. Thanks (Participant of edX's *The Science of Happiness*, 2014).

Participants of this particular course also expressed explicit desires to better understand and manage their own mental health concerns, and to assist others to do the same. In one example, a participant said:

Amazing, to share this course with so many people around the world, and to see that most of them are really supportive of each other. Depression is a difficult thing to deal with, and I think it is hard for people who haven't experienced it to understand it. I think of it as the equivalent of trying to run a marathon with a broken leg, while the crowd around you is cheering you on and encouraging you to win the race, unaware that your leg is broken. I wanted other people in the class who are experiencing/have experienced

depression to know that one other person knows how difficult it is (Participant of edX's *The Science of Happiness*, 2014).

This self-help trend was not so apparent in the Udacity forums, most likely due to the nature of the courses on offer, which were primarily computer and technology-based.

Table 7.1 All alternative reasons for survey respondents' participation in MOOCs not previously specified (multiple category selection)

	N	%	% of Cases
To learn new things	221	31.3	41.2
Out of curiosity/interest	98	13.9	18.2
Convenience of/preference for flexible online study mode	59	8.3	11.0
To update existing knowledge/skills	57	8.1	10.6
To stimulate/challenge brain function	39	5.5	7.3
Self-help	38	5.4	7.1
Professional development	37	5.2	6.9
For research purposes (including pedagogical)	27	3.8	5.0
Availability of courses not otherwise available locally	26	3.7	4.8
Preparation for future study	22	3.1	4.1
Requirement of university program	18	2.5	3.4
To socialise/gain global perspectives	14	2.0	2.6
Other	13	1.8	2.4
To develop language skills (especially in English)	12	1.7	2.2
To fill time	11	1.6	2.0
Restrictions on other forms of study (real or perceived) due to age	8	1.1	1.5
Homeschooling	4	.6	.7
The quality of instruction	3	.4	.6
Total	707	100.0	131.7

Peer support

As the selected quotes above demonstrate, many MOOC users have found solace in sharing experiences of previous hardship and the journey to enlightenment through MOOCs. Encouragement of others, to not put themselves down or give up and leave a course, was common to many of the MOOCs observed in this study, not only those based on health subjects. The supportive spirit found across courses from various academic fields has been captured well by this particular quote from a Coursera user:

I posted the original question in this thread. I was very encouraged to receive so many responses – and all of them were supportive and made very useful suggestions. I was very close to un-enrolling from the class when I posted it. After reading all the responses, I decided to hang in at least until I completed the first quiz. Well, on my second attempt I only missed one (about the number of gunmen), so I will continue with the class, work hard, and see how I do on the upcoming quizzes and graded assignments. Thanks to all of you for your responses – you never know how an encouraging post can really make a difference to another student. I hope to be as helpful and supportive to other students as you all were to me. Thanks again (Participant of Coursera's *Introduction to Forensic Science*, 2014).

As this comment indicates, the need to motivate others, and to emphasise the shared experience of learning in a MOOC, was particularly strong for some users. Another post from an edX user illustrates enthusiasm from the supporter's perspective:

Learning and understanding the English Language is not easy. I think your efforts are great!! Good for you!!! Don't hesitate to post something you are having a hard time understanding. Sometimes it is a matter of saying something a different way which may help you, and I am sure there are many people who would want to help you if you need it or anyone else who needs help. You are more than welcome to send me a private email anytime you want if you want to chat about certain materials. It is wonderful that we can all learn from parents and teachers from other countries. I am so excited to learn from you too (Participant of edX's *Positive Behavior Support in Early Childhood Education*, 2014).

Words of encouragement in the face of self-doubt also served to unite users struggling with course content. One Coursera user was keen to make others feel a sense of solidarity in their learning efforts:

Don't doubt your abilities! And certainly do not compare yourself to the superstar posters who seem to know everything. The knowledgeable people here sincerely DO want to help, but it's human nature for them to want to show off a little. Believe me, there are plenty of students struggling with this course. You're not alone (Participant of Coursera's *Calculus: Single Variable*, 2014).

Advice on how to proceed in times of difficulty was also common across courses and platforms. As one Coursera user noted, at the very least, struggling users could gain some personal satisfaction from their perseverance:

Stick with it if you possibly can – and ask lots of questions for the bits that are hard to understand – there is sure to be someone here who can answer the question, or give some useful guidance. And just think of the sense of achievement you will feel at the end of it! (Participant of Coursera's *Creative Programming for Digital Media and Mobile Apps*, 2014).

Like those engaging with edX and Coursera, participants in Udacity courses also praised fellow participants for their support and encouraged them to continue in their endeavours despite doubts about their abilities. The idea that people could be so invested and so willing to help each other, despite not having ever met or had physical contact with one another, was considered to be a very awe-inspiring phenomenon. One Udacity participant said that the urge to help others had become so great that they were able to overcome their own hesitance to provide feedback or answers to issues that they did not feel completely certain about. They had come to realise that in MOOCs, where the number of users far out-strips the number of teaching staff, any answer was better than no answer at all, if only to encourage others to persist in their learning efforts.

Valuing informal certificates and grades

Rather than being let down by the lack of credit in MOOCs, some users were shown to place a very high value on free, credit-less certificates and informal grades. As the survey data showed, just because the vast majority of MOOCs have not come with academic credit does not mean that people have felt that their efforts have gone unrecognised. Indeed, as Table 7.2 shows, most respondents disagreed that lack of credit equated to lack of recognition.

Table 7.2 Survey respondents' perception that not receiving academic credit for MOOCs means they don't get the recognition they deserve

		N	%	Valid %
Valid	Agree , not enough recognition without credit	700	31.9	32.5
	Disagree , even without credit, there is enough recognition	1,457	66.5	67.5
	Total	2,157	98.4	100.0
Missing		34	1.6	
Total		2,191	100.0	

Many MOOC users viewed the opportunity to pursue an informal, credit-less certificate as recognition enough. It was a goal worth striving for and being proud of in its own right, regardless of its ties – or lack thereof – to formal qualifications. A dangling carrot on a stick was still a carrot, so to speak. One participant of Udacity's *Exploratory Data Analysis* course pointed out that the informal certificates helped provide a sense of closure. As 'something more ceremonial' than an automated response to a specific question or an assessment task, these certificates stood as a marker of the long hours devoted to all the learning tasks put together. Even if they were only a symbolic gesture, being able to print the certificates at home provided an 'illusion of formality' and finality to the learning process. Although they may not ever mean anything to other people, certificates of completion or attainment have meant a lot to many learners, especially those enrolled because of curiosity about a subject. For these users, certificates have been like 'giving some mental reward...to oneself' (Participant of Coursera's *A Brief History of Humankind*, 2014). According to one edX user, the free certificates have effectively provided an individual measure of success and determination:

For those who have come for knowledge, it doesn't matter whether they get certificate or not. They will rise with [the] flowers. But [a] certificate does matter when you want to prove your knowledge and capability before a third person. I don't believe that [a] mark (in the courses offered in edX at least) is a measure of intelligence, but I believe, [on] this platform, [a] mark is a measure of effort and interest! (Participant of edX's *Greatest Unsolved Mysteries of the Universe*, 2014).

Without certificates, some users said they may not have bothered with MOOCs at all:

Irrational as it may be, given that I have no possible use for the certificates (of which I have collected nearly a hundred in the last 18 months), the absence of a certificate already has me wondering whether to bother with the quizzes and exams but instead just 'follow along' and watch the videos. The problem is that I know that, without the spur of assessment, I am likely to not pay proper attention or even drop the course entirely. I know that this doesn't really make sense when I am only studying to satisfy my interest in the subject, but whomever claimed humans were rational anyway? (Participant of Coursera's *A Brief History of Humankind*, 2014).

Aside from the certificates that some courses have upon completion, many users have been shown to hold the informal grades they receive throughout MOOCs in high regard as well. As one Udacity user noted, people who have grown up in traditional educational settings have been taught to 'crave validation' through grades, by their parents, their teachers and their peers. While several users across Coursera, edX and Udacity have said that longing for good grades doesn't entirely make sense in the context of un-accredited MOOCs, many said this kind of engrained behaviour has been difficult to overcome. One Udacity participant actually said that there should be no reason to have to overcome it, and that the need for external validation of one's knowledge and efforts should not be disregarded since many people thrive on grades as motivation to learn. This attachment to grades was most clearly demonstrated on the forums by the strong criticisms expressed about peer-graded assignments. Some users, who felt a severe sense of injustice at the grades they received, demanded their work be re-graded to the standard they believed it deserved:

Never thought I would ever write this on any Coursera forum but I am troubled with the score received for my second assignment (23/40 [myself I gave 36/40], first assignment was 20/20). Two of the four peers were either negligent or lazy, since they refused to write any of the ten (but one) possible comments. I would assume that they were equally negligent or lazy [in] reading or trying to read it properly. The comments of the two other peers, who did a fair job with their comments and grading (positive as well as less positive comments [but I agreed with it]), back me up in this. Question is, can any of the staff members back up my end of the story or can they follow the two peers who gave me empty comments and possible un-credible grading? Thanks for looking into to this (Participant of Coursera's *Terrorism and Counterterrorism*, 2014).

Other users, such as the one quoted below, stressed the importance of grades more broadly. A good grade was regarded as important to recognise the effort involved in producing a particular assignment, but also the effort dedicated to an entire course:

I completed my assessment on Violence in the Media and got a 6/12, which I think is ridiculous. I want this to be re-graded... as this is addressed to the staff, please be the judge, as this means the difference between letter of accomplishment and one with distinction (Participant of Coursera's *Understanding Violence*, 2014).

Some users were fairly calm in their requests for a re-grade. Others were far more distressed in their demeanour. Displays of frenetic concern only highlighted the strong levels of attachment to grades in MOOCs. For many, the desire was simply to achieve the highest grade possible, regardless of whether such grades led to a formal qualification or not:

I want to be [re]graded for my essay!! It seems to be a hacking trick. Someone mixed the essays and the evaluations of other essays. I am going to contact Coursera too. They must provide a security guarantee for the examinations. It is a matter of fairness. If something like that happened, we have to evaluate all papers again. Or we are going to let the people be evaluated with grades of others or evaluated by hackers?...I want to be fairly evaluated by real peers and not by hackers and receive the grade my essay really is worth! (Participant of Coursera's *Introduction to Environmental Law and Policy*, 2014).

Strong attachment to grades has not gone unnoticed by course staff either:

I expected that most people taking online courses would be motivated by the 'joy of learning' that can be hard to find in a degree-driven classroom setting. It's therefore surprised me that so many online students focus such attention on the homework grading and seem to feel deeply wronged by any shortcoming in the phrasing of questions and/or the grading of answers. Sadly, I've seen this in other classes too (Instructor for edX's *Greatest Unsolved Mysteries of the Universe*, 2014).

The observation from the forums that informal grades were very important to some MOOC users was further supported by the online survey data. As Table 7.3 shows, when asked about their view on lack of credit and grades, the majority (59%) of survey respondents indicated that lack of credit did not equate to lack of grade anxiety. Essentially, even though MOOCs did not contribute to formal qualifications, users were still worried about how well they performed in them.

Table 7.3 Survey respondents' perception that lack of academic credit in MOOCs means they don't have to worry about grades

		N	%	Valid %
Valid	Agree , lack of credit means I don't have to worry about grades in MOOCs	893	40.8	41.2
	Disagree , even with lack of credit, I still worry about grades in MOOCs	1,277	58.3	58.8
	Total	2,170	99.0	100.0
Missing		21	1.0	
Total		2,191	100.0	

As Table 7.4 shows, although most survey respondents felt unaffected by the lack of credit (compared to lack of fees), 12% nonetheless found the lack of credit to be a

motivating factor behind their participation in MOOCs. Ultimately, the lack of credit has helped some people muster the confidence to try to learn something new.

Table 7.4 Survey respondents' perception of lack academic credit in MOOCs with regards to motivation to participate

		N	%	Valid %
Valid	Lack of credit motivates me	258	11.8	11.9
	Lack of credit doesn't really affect me	1,755	80.1	80.8
	Lack of credit demotivates me	159	7.3	7.3
	Total	2,172	99.1	100.0
Missing		19	.9	
Total		2,191	100.0	

NEGATIVE UNINTENDED CONSEQUENCES

As noted above, MOOCs have been valued as educational endeavours despite their general lack of ties to formal qualifications. They have also been seen as a means for personal development – be it intellectual, emotional, physical or psychological – and they have been shown to foster a supportive community spirit. That said, observation of official MOOC forums has also revealed some less than friendly behaviours cultivated by the very structure of MOOCs and the prospect of MOOC movement solidarity.

Down-voting

‘Sapiens, look at what we have done! Taken a peaceful enclave and turned it into a war zone. At least we are consistent’ (Participant of Coursera’s *A Brief History of Humankind*, 2014). This quote directly summaries the volatility observed on MOOC forums, fuelled, to a large degree, by the presence of voting mechanisms for user posts. Coursera, edX and Udacity have all had their own systems in place for providing positive and negative feedback to posts, each of which has been designed to highlight the most popular (and unpopular) discussion threads. The most salient of these mechanisms was Coursera’s ‘up-voting’ and ‘down-voting’ system, where users’ views – and their place in the MOOC community – were essentially polled. Upward-facing green arrows gave posters a positive score that indicated other users agreed with what they were saying. This was effectively a green light to the poster to say that they were welcome to carry on as part of course discussions because their opinions were in line with the vocal majority. Those who deviated from the majority view were confronted

with a red downward-facing arrow and a negative score. This was a penalty for disrupting the social order and a signal that they did not belong. Evidently, rather than simply providing a means to help users' wade through forum threads and identify the most active topics, post-voting seems to have had a distinct and unintended consequence on the nature of user interaction. Through post-voting, some users have been praised for their views, others have been alienated.

Aside from comments from course staff about the need for mutually respectful discussions, especially around historically controversial topics like politics, religion and animal welfare, one of the major issues recognised by MOOC users was the role that post-voting played in the perception of comments in discussion forums; as good or bad, right or wrong, regardless of the nature of the subject at hand. The assignment of value to someone's post was shown to dramatically impact how that user was likely to be viewed by the group at large; as a trouble-maker, a friend, or a foe. What's more, being on the receiving end of a negative score also had an impact on how users perceived MOOCs more broadly, as indicated by this Coursera user:

-11 for pointing out that Reagan's White House considered Mandela 'one of the more notorious terrorists' in the 80s[?] I thought this up-vote, down-vote system was to highlight useful content, and that this wasn't Facebook with ancillary academic content (Participant of Coursera's *A Brief History of Humankind*, 2014).

Other Coursera users, such as those quoted below, suggested that the biggest problem with post-voting was that it made some users feel like their posts were being targeted:

It's small when one comment gets one down-vote. But overall, this issue is not small. If you haven't seen a thread where people pile onto a minority view (no matter how respectfully written) or a person followed around with every comment down-voted, you may not realise. It can be used to discourage speaking out, to silence opinions, and to bully. These are not small things in a supposedly educational environment encouraging participation and dialogue....I've seen threads with a hundred down-votes (and a hugely vibrant discussion underneath precisely because the topic was something people really did want to talk about, even if they disagreed with the [original poster]). I've also seen (and been the target of) someone down-voting every comment, no matter the subject or content, of a particular person (Participant of Coursera's *Introduction to Philosophy*, 2014).

Some people are too quick to judge the intent of other people's words negatively, without any knowledge of the person. Sometimes one should take the words at face value without judging them to be sarcastic or unkind....Speaking of unkindness, piling [on] down arrows is unkind; this is done too often. It is unkind because it is done anonymously and without comment or questioning the person's intent. If you don't like what someone says, why not have the courage of your conviction and identify yourself and ask what the person meant? Piling [on] down arrows can have the unhealthy effect of shutting a person up; who needs the aggravation? So: ask what is meant before you judge intent. Don't down arrow without stating why. Sometimes a cigar is just a cigar; sometimes the plain meaning is the meaning (Participant of Coursera's *Paradoxes of War*, 2014).

Participants in Udacity courses expressed similar dissatisfaction with the application of post-voting. Users who adopted a blanket down-voting approach were described as 'mean spirited' and 'tyrants', hell-bent on taking up 'torches and pitchforks' to anyone who disrespected the views of their 'mob'.

Flaming and blaming

I won't be responding again. I came here to learn and share ideas, not get into a pissing match with someone begrudging a system [that] really seems to work for a lot of people. It's just not my groove buddy.

Nice effort...but hiding your weak argument behind 50 cent words (some of which are in the wrong tense) does nothing to mask your ignorance, arrogance, or convoluted logic...you are simply a blowhard who is an authority on practically everything in his own mind. I'm glad that continuing this discussion isn't your 'groove', but I'm afraid you've already exposed yourself for what you are.

(Correspondence between participants of Coursera's *The Addicted Brain*, 2014).

Inflammatory, aggressive and anti-social dialogue in online settings is nothing new. 'Flaming', defined as intentionally hostile behaviour designed to insult or harm recipients through the use of profanity or name-calling, has been a topic of discussion since the introduction of internet communication platforms (Alonzo and Aiken, 2004; Lee, 2005; Thompsen, 1993). Evidently, MOOCs have become just the latest platform to exhibit such hostility, or perhaps even encourage it. As the previous examination of post down-voting suggests, MOOCs seem to have made a habit of attracting users bent on stirring up controversy in course discussion forums. Deliberately offensive, abusive and insulting dialogue had been strictly prohibited in the official code of conduct outlined by each MOOC provider. However, such behaviour seems to have been an inevitable outcome of MOOCs, given its prevalence in the forums. Those who have taken MOOCs at their face value, as educational courses aimed at imparting knowledge and wisdom to eager minds, have been the most affronted by this. Never would such inspiring hubs of knowledge and intellectual enquiry be home to patronising and bullish behaviour, they assumed. However, practically all MOOCs observed in this study have indicated that such behaviour has occurred, and on a regular basis. That said, the perpetrators do appear to have been in the minority, as this Coursera user suggested:

Is it just me, or are any others getting a bit fed up with a small minority of posters who make personal remarks when replying to others? I don't want to sound like some uptight school ma'am, but this could really put some people off posting again or even posting in the first place or, worse, put them off the course itself. Perhaps people should imagine they are having a conversation with a stranger in a coffee shop, who may not have the same first language as themselves, and about whom they know nothing or very little.

Would they, in a face-to-face situation, respond rudely to a remark they disagreed with or belittle the stranger in any way? I hope not. Let us by all means disagree, but adults (and young people) can have a heated debate without descending to bad manners (Participant of Coursera's *A Brief History of Humankind*, 2014).

Another Coursera user came to a similar conclusion that the majority of users were courteous, but that some users seemed intent on spoiling MOOCs for everybody:

There is just a segment of the populace that are not happy unless they are complaining, insulting or blaming others for everything. Fortunately, it is only a very small amount, single digits, out of the many thousands of people in the class. Whether you agree or disagree with the opinions put forth, the overwhelming majority are courteous, respectful and thoughtful (Participant of Coursera's *The French Revolution*, 2014).

Minority or not, this hostile behaviour has made many question their very participation in course forums at all. According to one poster from Coursera:

In some courses I've done, the discussion boards have become horrible places with people attacking each other, moaning they aren't happy with the course etc. And that does have a negative effect on my view of the course. I dread going on the boards and am less encouraged to post for fear of being attacked for what I write. My overall enjoyment of the course is thereby lessened (Participant of Coursera's *Social Psychology*, 2014).

At times, the poor behaviour of certain users has reflected badly on the MOOC creators as well as the MOOC providers. One particularly disenchanted Coursera user made their frustrations on this matter known:

I expected a more academic, professional environment for this class rather than a junior high school lunch room. Knock it off, people. A male instructor would never be criticised this [rudely] for the sound of his voice. Kudos to any woman with the nerve to go into mathematics as a profession. It looks like some men might feel threatened by women's presence in such a 'manly' field. I'm appalled by the personal attacks, and wish the discussion board was limited to mathematical-related themes. This is embarrassing – [University of California] Irvine and Coursera should be embarrassed for allowing it (Participant of Coursera's *Pre-Calculus*, 2014).

Like many Coursera and edX users, Udacity users were similarly baffled at the hostility in course forums. One Udacity user explained disbelief at the amount of complaints he received after simply posing a question to other course participants as to whether they were experiencing a similar problem with the learning material. Despite the user being adamant that his original post was 'polite' and that no one was 'forced to reply or help' him, he felt that some users simply saw it 'their duty to talk crap' to others. These kinds of personal assaults were not only deemed contrary to the code of conduct for forum behaviour, they were also thought to undermine the integrity of discussions. As one commenter suggested, 'address the post, not the

poster. Attacks on others posters are unnecessary and dilute any point you are hoping to make' (Participant of Coursera's *Sports and Society*, 2014).

Course forums fuelled by hostile exchanges and 'bullying' were also viewed as particularly unhealthy for users' learning objectives, not to mention their general wellbeing. Importantly, though, not everyone was equally affected by such behaviour. Even though some users did find aggravated interactions in forums quite confronting, others were fairly oblivious to this kind of activity. Those in the latter camp said that differing perceptions of course forums must have depended on the specific discussion threads that individual users subscribed to. Precisely why any rude or bullying behaviour had occurred at all was theorised by several users. One user's interpretation:

Of course people should not be rude or insulting. Although, for my part, I don't mind being insulted because I think it is an indication that I may be winning the argument. And, [as] has been said, it is only a small minority who are unpleasant; providing they use their names it is easy to avoid them. But there is a related problem. Some regard an attack on something they hold dear as an attack on them. I did the European Union MOOC. It turned out to be a biased and slavish piece of EU propaganda. When I pointed this out, I attracted swarms of red arrows and threats of banishment. Euro-fanatics react like cult members do when someone points out that their guru is a charlatan (Participant of Coursera's *A Brief History of Humankind*, 2014).

Others, like the commenter below, suggested that the only reason why people engaged in such anti-social behaviour was to attract the attention of others:

Do not waste your time planting seeds in bad soil. Just vote down illogical or non-scientific posts, but do not engage in discussions with the writers of provocative illogical arguments. They don't really want to learn. They only want attention (Participant of Coursera's *Emergence of Life*, 2014).

For some, this attention-seeking, trouble-making agenda in MOOCs was simply the work of online trolls; people who have insisted on using the internet as a means to disrupt the experiences of others (Shin, 2008). According to one Coursera user:

The purpose of these trolls is to go to discussion groups and other social media to create problems. They harass until everyone is piping hot mad. He says that he's 'very disappointed' in this class yet he refuses to un-enrol....I think that everyone should stop fuelling this man's agenda by refusing to comment to his posts or ban the guy immediately. He has clearly broken the Code of Conduct (Participant of Coursera's *Animal Behaviour and Welfare*, 2014).

These 'trolls' were clearly distinguished from other participants as unwelcome invaders of the MOOC community. According to one commenter, 'a universe of trolls [has been] pouring into our space to make a nuisance of themselves' (Participant of Coursera's *Climate Change in Four Dimensions*, 2014). Any effort to include them in the community

was considered futile, as ‘trolls...will never listen to reason. They are like pilotless drones on a one-way mission’ (Participant of Coursera’s *Climate Change in Four Dimensions*, 2014). In the end, flaming and troll-like behaviour was just thought to be an inevitable consequence of the accessibility of MOOCs. As one Coursera user noted:

We have come to this point because participants can post anything they like. In most online courses from university degree programs that you pay for, the professor posts the thread for the week’s lecture, defining the topic for discussion, and the need for quality references to support discussion so it’s not just personal opinion. By not controlling the initiation of threads to compliment the lecture, people from all over the globe with different backgrounds, goals, etc. [can] use these forums as political and religious platforms. It would be infinitely more valuable to take this variety of backgrounds and perspectives from around the globe and focus it on the topic at hand (Participant of Coursera’s *A Brief History of Humankind*, 2014).

That MOOCs have generally been free has also been highlighted as a potential reason for anti-social behaviour. ‘Because these MOOCs are free, there’s no “public good”, there’s no “beloved community”’, one user said (Participant of Coursera’s *The Clinical Psychology of Children and Young People*, 2014). The massive number of people involved in MOOCs has meant that the doors have been open to all sorts. As participants of Udacity’s *Artificial Intelligence for Robotics* course were keen to point out, this has resulted in participants invariably having different language and cultural backgrounds, as well as different levels of maturity and education. As such, not everyone has always thought alike or agreed with one another.

Many pro-MOOC users have taken criticisms of these free online courses, and their instructors, very personally. There has been a tendency for the vocal pro-MOOC majority in the forums to blame the critical users. They blamed them for their lack of awareness or appreciation of the academic perquisites of what were essentially university-level courses. They have blamed them for their unrealistic expectations of what they should be receiving from such ‘free’ courses. They have also blamed them for their lack of gratitude at whatever ‘free’ content was made available to them. Here is an example of negative feedback offered by one Coursera user that highlights the kind of comments that attracted backlash:

I find the lectures visually very boring and quite irritating. Most of the lecture is taken up with someone talking to the camera. There are hardly any different pictures or angles to relieve the visual boredom. Then the choice of where the shot is cut off is irritating because I can’t help focusing on the hands waving about, which is very irritating. I end up just listening to the lectures, and trying not to watch if I can possibly help it. Surely it wouldn’t take too much effort to make the lectures visually more interesting and less irritating. I don’t expect them to be works of art, but they are comparable with the Open University programmes of the 1970s (Participant of Coursera’s *Introduction to Philosophy*, 2014).

This particular comment received a barrage of criticism from other course participants. One reply put the blame back on the original poster, advising them that they should be more concerned about the content of the course than its aesthetics, and that 'if one is looking to be visually entertained' then perhaps they should 'try Disneyland' (Participant of Coursera's *Introduction to Philosophy*, 2014). Another response told the original poster that they should be grateful for whatever the MOOC had to offer, given the effort and money that would have gone in to creating a course that was effectively free of charge for the end user:

The typical Coursera course costs about \$7,000 (USD) to produce; the cost absorbed by the university/college. The typical course involves 100 hours of taping, and the average number of hours per week devoted by faculty to the forum discussions is 8-10 (stats from Wikipedia and Coursera). How about just saying, 'thank you, professors, for this free opportunity to learn something new from one of the most prestigious institutions of learning on our planet', hmm? (Participant of Coursera's *Introduction to Philosophy*, 2014).

This idea that people who offered negative feedback, however constructively intended, were nothing but 'ungrateful complainers' was a recurring theme across Coursera, edX and Udacity forums. For MOOC proponents, the freeness of MOOCs acted as a shield to any criticism against them. Like the edX user quoted below, many users volunteered expressions of gratitude to course staff to counterbalance any such negativity:

Just wanted to throw in my two cents (if it is even worth that). This is the first MOOC I have taken. I have been studying online for 2 1/2 years and paying dearly for it. This class has taken a subject that I had only a vague understanding of and made it interesting and enjoyable. I do not understand those few individuals who seem not to be satisfied. Perhaps they should pay 1700.00 for a five week cramming session and then see if they still want to complain....I am so grateful to have found a way to learn without bleeding money to do it. Thank you all for your hard work and obvious dedication! (Participant of edX's *Fundamentals of Immunology – Part 1*, 2014).

However, not everyone was so appreciative of these free online courses. As one Coursera user said:

Well I just did the assignment in a few minutes. It's just really bad. I'm commenting because this guy should choose a new line of work. Teaching is just not his expertise. Coursera should not be recycling crap from folks who create a jumbled mess. I mean, seriously, do you think this is educational? Are you learning anything? (Participant of Coursera's *Pattern Oriented Software Architectures*, 2014).

As with the previous example of negative course feedback, this comment was met with a torrent of backlash. Replies sought to defend the course instructors and commend them for their efforts. As one user noted in their response to the original poster:

You're overreacting, and you're being rude. Drs. Schmidt and White are putting in a lot of work to give this course, and doing it without cost to us. In addition to the lectures and

assignments, the lectures reference a plethora of optional resources. You can learn nothing from any of them? (Participant of Coursera's *Pattern Oriented Software Architectures*, 2014).

Once again, insults directed at a specific MOOC were taken as insults to the broader MOOC community. For one user, the problem was clear:

I believe WE (the students) are the ones who are responsible for learning and if we are not learning we need to look in the mirror. The instructors are just golden resources that only very few lucky ones have access to. Devaluing such treasures is an insult to everyone involved, including your fellow students (Participant of Coursera's *Pattern Oriented Software Architectures*, 2014).

This quote is illustrative of the admiration that some users felt towards MOOC creators and the urge to defend MOOCs against their critics. Another reply shared this sentiment, but appeared to take the feedback much more personally:

If you can't help, don't criticise the way you did. You are nothing compared to Prof Doug. You can't even do 1% of what he does. You can voice your opinions. But really, check with yourself before posting anything (Participant of Coursera's *Pattern Oriented Software Architectures*, 2014).

Participants in Udacity courses were equally antagonistic towards 'ungrateful complainers'. Negative feedback was considered incredibly 'discouraging' to the MOOC cause. Only 'idiots' would dare offer such 'disparaging' remarks about 'minor' issues of otherwise 'amazing' learning opportunities. Any 'whingers' were said to have an overwhelming sense of 'entitlement', and complaints towards MOOC instructors, who have been 'trying to do something altruistic' by providing free educational content to anyone with an internet connection, were simply 'appalling' and 'illegitimate'.

Another way that critical users were blamed was through 'standard-shaming'. Effectively, criticisms about course difficulty were deemed unwarranted because learners should have known the high standard of knowledge and expertise expected from the prestigious universities and companies delivering MOOCs. As one participant of Udacity's *Introduction to Computer Science* described it, what was being learned was from those at the 'cutting-edge' of their field, and so people needed to be serious about learning at a high level. In the words of one edX user, these were 'college level' courses, and so 'a certain amount of initiative from the student [had] to be expected' (Participant of edX's *Solar Energy*, 2014).

Those who rejected criticisms of MOOCs were also very vocal about the fact that participants were free to leave at any time; that there was no compulsion or requirement to complete a course, or for those happy with MOOCs to tolerate the negativity of others. One Udacity participant said they wished they could 'smash these

whiners in the face'. Another said they would vote critics 'down 10,000 times' if it meant their negative comments would be deleted. Some participants on Coursera were equally forceful in their invitations for dissatisfied participants to remove themselves from a course. One user suggested:

If you don't like the course [get the fuck out]. There is no need to insult the professor or the students that are here to listen and learn. I see the professor calling war murder, destruction and violence. I don't see him saying war is good for what ails you. Leave, you are not contributing except to demonstrate again how we can believe we are right and all others wrong. Blindness and deafness to facts and discourse do not belong in an academic setting. Put on your black masks, if you must, and get out on the streets. But please, get out of here (Participants of Coursera's *Paradoxes of War*, 2014).

Another Coursera user proclaimed:

Get your panties out of [a] bunch and leave the course if you have a problem with it. Gotta love how you whine while taking a FREE course. You don't like his teaching style? TEACH YOUR OWN COURSE THEN!!!! (Participant of Coursera's *A Brief History of Humankind*, 2014).

Expressing a similar sentiment yet again, one other user said:

Do you know what really makes [me] wonder? Was anybody forced to take this MOOC? Did you pay anything? How can you be so rude and so foolish to judge so harsh people who are [willing] to give for free? Did you give any of your knowledge [to] anyone anytime for free? If you do not like what is offered, open the door and leave; there is obviously nobody keeping you inside the class, no? I often recognise this behaviour with people going shopping. They enter a store and start to criticise from the moment they enter until the moment they leave. Nobody forced them to come into the shop. It was their choice. Why do you take courses in psychology[?] You need [your own] therapy in behaviour. Jesus! (Participant of Coursera's *The Clinical Psychology of Children and Young People*, 2014).

While many took up this pro-MOOC cause with a vengeance, not all MOOC defenders were so aggressive. Some, like this user, simply pointed out that 'the course is free of charge. There is no compulsion to keep participating in the course if it is not to your taste' (Participant of edX's *Introduction to Computer Programming – Part 1*, 2014). Others more gently stated something along the lines of 'this is an online course, it is free, it is optional, and it's time to move on' (Participant of Coursera's *Introduction to Forensic Science*, 2014). Whatever the tone of the message, in all cases, attacks on MOOCs and, in turn, on the MOOC-attackers, indicated that perhaps MOOCs were not for everybody and, while ostensibly inclusive, not everybody was welcome in the MOOC community. The minority of users who expressed a critical view of MOOCs, however well-intentioned, were likely to find themselves on the outside of the MOOC-loving majority.

Attack of (and on) the anonymous user

‘Anonymous is the name of cowards and thieves’, stated one participant of Coursera’s *Introduction to Forensic Science* course. Such was the suspicion many Coursera users showed towards anonymous posters. Though not deemed as much of a problem on edX and Udacity – where it was acceptable for pseudonyms and usernames to be used as identifying monikers – on Coursera, many seemed to resent that users had the opportunity to be identifiable to others by their real name or they could choose to be anonymous. From observing Coursera forum behaviour, it became clear that for some, like the user below, anonymity posed a considerable threat that needed to be eradicated:

This course is quite good. The problems I see are the supercilious anonymous with their dreary complaints, and discordant, whiny ‘voices’ – really is very amateurish. It is something like leaving a window open and the pests crawl in (Participant of Coursera’s *English Common Law*, 2014).

Much of the flaming behaviour in MOOCs has been attributed, at least with Coursera, to the option for posters to remain anonymous. As one user suggested:

It surely is easier to be ‘nice’ in public, when we are being ‘watched’ or even simply can see the other person’s face. Perhaps some of the online vitriol one sees is due to the fact that it is easier to be ‘not nice’ to someone who is invisible and anonymous? (Anonymous participant of Coursera’s *Social Psychology*, 2014).

However, as the below participant noted, users were not entirely anonymous to the teaching staff:

Blaming, denigrating and insulting is just a way of saying something without really having anything to contribute. I am a teaching assistant in another class and you can see who the anonymous posters are. It is amazing how many will post using their name and then agree as someone anonymous or vice versa. Some will litter many threads with the same tripe just to stir the pot (Participant of Coursera’s *The French Revolution*, 2014).

Because of the potential for deviance associated with unnamed posts, some users have simply decided not to interact with people who ‘hide behind’ the cloak of anonymity. In response, many unnamed participants have felt compelled to explain why they chose to be anonymous in the first place. Some, like the person quoted below, said it was for privacy, but also because of the hostility and anti-social behaviour present in web forums generally:

I thought [I] might clear things up to explain why some (not all) of us participate as anonymously. My Coursera username is (foolishly) tied to my true online identity. This forum, and virtually every forum on the web, [is] subject to abuse by rude and possibly disturbed individuals. They may be a minority, but they are vocal and sometimes aggressive. I do not want to be exposed to them outside a forum I may choose to contribute

to. In the past, I did try creating a pseudonymous account so I could have a name. But since then, Coursera has added the policy prohibiting this and so I am left with just being an anonymous contributor. Some people have criticised and [dismissed] anonymous postings as not being legitimate. So be it; just as long as no cranks come knocking at my door at 2 A.M. (Participant of Coursera's *A Brief History of Humankind*, 2014).

Others have chosen to remain anonymous specifically due to bad experiences in other MOOCs. As one user noted:

I had [a] bad experience in a MOOC a few months ago where everything I wrote was given a negative point, apparently by the same person, and the comments began to feel like personal attacks. If it had just been once or twice, I would have let it go. But it was every time. I finally quit posting, probably not as soon as I should have. I was mistaken in the idea that we could just agree to disagree. Since then, I have been cautious about posting in the discussion forums. Even in this class, I got a negative point for praising someone and agreeing with them about their post. I have no idea why it was marked down. So here is another person desiring a certain amount of anonymity (Participant of Coursera's *The French Revolution*, 2014).

Many were also quick to highlight that, because of the country they lived in, online interaction was not always viewed favourably, especially in cases where sensitive topics were being discussed. For one user, this was a key issue that others needed to be more empathetic about:

I just want to point out that some of us live in countries where we cannot freely say everything we want on this forum. That will skew the overall sounds coming from here. I also know it's something people in Europe simply lack awareness of, due to the great safeties (of their intellects) that they grew up with. I prefer to refrain from explaining why this is the case in my country of residence. Other countries that I can think of are Singapore, maybe Korea, maybe Russia, maybe [the] UK. This may have to do with either of the two factors: you live a European/North American country and anything you say in justification of illegal behaviour may put up a red flag in the internet research intel unit [working for the government], especially if your name is Arabic; [or] you live in a country where you are not expected to talk about these things (Participant of Coursera's *Terrorism and Counterterrorism*, 2014).

There were others, however, who simply feared backlash from expressing their opinions. They believed that posting any personal thoughts online was risky, but that anonymity could provide some level of protective armour against any negative reactions. As one user explained:

What is happening is that some people (due to cultural or other social contexts or experiences) need the additional aid of the 'anonymous' handle (or even the mere option of it) to experience the same feeling of anonymity that you feel by recognising that there is a very low likelihood of meeting us in person. If we (some of us) didn't have that feeling of anonymity we (some, though not all of us) would not have risked putting our views 'out there' by posting/contributing, as (generally speaking) we...don't like to feel foolish [or] appear wrong [or] hold misguided views. [It is] social psychology at play. Unfortunately, along with that increased anonymity that promotes discussion comes some

anti-social behaviour, as (again) social psychology research has found. So, as with most things in life, to get the ‘good’ (increased discussion) we seem to have to take some bad. I expect [that] the thinking is that the good outweighs the bad (Participant of Coursera’s *Introduction to Philosophy*, 2014).

Even when named users took these worries on board, there were still concerns about the nature of discussion when anonymous posters were involved. Because an anonymous user was a stranger to everyone, bar the course staff, their behaviour could not be tracked over time. Specifically, their online presence could not be used to create an assemblage of that user’s character in the eyes of others. In contrast, a named user was not entirely a stranger. They had an identifying feature that could be associated with a particular person, and thus a particular reputation. The named users could be held to account for their behaviour, to some degree. As such, the significance of names was not to be underestimated. According to one user:

When we meet a stranger for the first time in the ‘real’ world, the convention is that we introduce ourselves. That single exchange of information conveys vast amounts of meaning. We pick up demeanour, dialects, [and] hints of personality traits, all of which contribute to either trust or suspicion. These ‘first impressions’ can be powerful and enduring, and form a basis for developing or avoiding further relationships. If we were to approach a stranger that wore a mask, concealing their identity, we would naturally view that the person with more suspicion than one with a warm, open smile. That does not mean that the masked stranger is less trustworthy than the one with a smile. The truth could be just the opposite. But the nature of the exchange is much different (Participant of Coursera’s *A Brief History of Humankind*, 2014).

Regardless of the level of mistrust towards anonymous users, one of the biggest concerns from people engaging on the Coursera forums was the effect that anonymity was having on the flow of discussion. As one user stated:

I really don’t care, just find it odd. It makes it even harder to communicate, this medium is already two-dimensional, [and] having a string full of same-namers really makes it even worse (Participant of Coursera’s *A Brief History of Humankind*, 2014).

Essentially, with so many ‘anonymouses’, it often became impossible to ‘tell who’s saying what to whom’ (Participant of Coursera’s *Emergence of Life*, 2014). To alleviate confusion, named and anonymous users in numerous courses urged all anonymous posters to attach some kind of pseudonym to their posts. As one commenter noted:

I rarely, if ever, feel the need to post anonymously on Coursera, but I respect the choice of those that do. But I would like to repeat and support the message already given by several (non-anonymous) posters earlier in this thread: it is VERY helpful if anonymous posters choose a nickname or handle and add it to the end of each post as a signoff. Without this, it is all too easy to confuse different anonymous posters (Participant of Coursera’s *A Brief History of Humankind*, 2014).

Without some kind of nickname assigned to anonymous posts, the fear was that discussion threads would 'quickly turn into a free for all' (Participant of Coursera's *Climate Change in Four Dimensions*, 2014). This could not go on if MOOCs, especially Coursera, were to survive in the long term. It appears, though, that the pseudonym signature approach to managing anonymous forum posts has worked in the courses where users have adopted it.

The forgotten forums

One of the starkest observations about forum activity was that, for all the 'massive' numbers of people enrolled in MOOCs, relatively few people have actually participated on course forums or even read the posts of others. This issue has been made obvious to anyone enrolled in MOOCs, as all providers have included view and post counts in their forum platforms. What has not been so obvious is where all the users have gone. As one Coursera user said:

I don't get it. Copying from the home page: *Dear 95% --- Hop into the Forum. You will like it.* Well, I'm here. And I actually think it's pretty discouraging. There are two week-old lecture questions sitting in their folders unanswered. I'd like to ask some other questions about [course content], but it seems I'd be wasting my time. To the staff, where are you guys? And where is everyone else? This is a decent class; these forums shouldn't be this empty (Participant of Coursera's *Bioelectricity: A Quantitative Approach*, 2014).

What the embedded quote about the '95%' suggests is that the vast majority of course enrollees were simply not accessing the discussion forums. As one Coursera staff member confirmed, 'thousands of people do courses like this, and only a few hundred post anything at all on the forum' (Teaching Assistant for Coursera's *Animal Behaviour*, 2014). For some, this lack of engagement has made for a very lonely learning experience, rather than a highly interactive and globally-connected one like that which providers had promoted. As one commenter described it:

I enter a post-modern existential vacuum when I enter this discussion board. I don't really read many posts, I don't think anyone is reading mine. It's a pretend discussion as our society pretends to have culture. I am one of millions. I matter, but mostly to myself (Participant of edX's *The Science of Happiness*, 2014).

According to another user: 'I just feel like I'm posting into the void, which seems like a shame' (Participant of edX's *The Science of Happiness*, 2014). In some Udacity courses, the lack of engagement was deemed so bad that the forums had effectively become 'ghost towns', places 'haunted' by posts of users-past but lacking any 'critical mass of students' at any given time.

One of the major criticisms around inactivity on the forums of both Udacity and edX was that their structure or, more specifically, their lack of structure, inhibited conversation. This was actually one of the main reasons why so many quotes included in this study have been from Coursera students. Certainly, it was the biggest provider and had the largest number of courses on offer (to enrol in and observe) at the time. But more importantly, its participants seemed more willing to engage with each other on the forums because the forums were easier to navigate. In contrast, participants on edX forums had a much harder time finding information and interacting with other users, as noted by the user below:

Could we do anything with the mess in the forum? Number of posts increasing every hour and people do not care to write posts in intended threads. It is very difficult to navigate and find what I am looking for. I would like to help others with their problems and to solve mine but I am losing myself in tens of ‘Hello’, ‘Motivation’, ‘Biology’, etc. (Participant of edX’s *Introduction to Global Sociology*, 2014).

Described as ‘wholly inadequate’ for its purpose, many users demanded a complete overhaul of the ‘unusable’ edX forum platform. As one aggravated user argued:

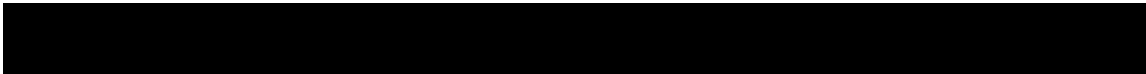
I generally agree that the edX discussion system is very poor. I’ve used it for several classes now and it’s generally useless or frustrating in every class as it is near impossible to keep track of threads. I can barely ever find my own threads let alone ones that are relevant to particular topics or lectures. It’s like they re-invented the wheel for no good reason and then did a piss-poor job of building a ‘new wheel’ (Participant of edX’s *Autonomous Navigation for Flying Robots*, 2014).

Participants on Udacity shared similar gripes about the way its forums were set up. Lack of organisation, poor navigation and search functionality left a definite sour note in the mouths of people who otherwise thought that Udacity had great MOOCs to offer.

CHAPTER SUMMARY

This chapter has examined the positive and negative consequences of MOOCs that emerged from the online survey and observation of course forums. Because these attitudes, motivations and behaviours lay beyond the scope of what MOOC providers explicitly said they wanted to achieve through MOOCs, they have been regarded as unintended consequences of the MOOC movement. Some of these have been categorised as ostensibly positive unintended consequences, others as ostensibly negative unintended consequences. Further consideration of all consequences is required to determine just how ‘negative’ and ‘positive’ such consequences are and what impact they may have on the perceptions, experiences and overall success of MOOCs, and the MOOC movement.

A clearer picture of the precise impact of these observed attitudes, motivations and behaviours starts to emerge in the next two chapters. The first of these, Chapter 8, examines how unintended consequences relate to the construction and culture of the MOOC movement at the individual, interpersonal and broader social level. Chapter 9 then provides an assessment of the movement's goals in light of the unintended consequences discussed here to determine where they have succeeded, where they have fallen short, and what may be done to improve and expand upon the impact of MOOCs more broadly.



8. The culture and construction of the MOOC movement explained

The analysis of MOOC user survey data in Chapter 5 demonstrated that respondents' affiliation with the MOOC movement appears to have more to do with social psychological factors, like sense of connection and sense of empowerment, than with demographic factors, like age, sex, qualification and country of residence. This chapter delves further into the social psychological aspects of movement affiliation to tease out how differences in identification with the movement can be better understood. It applies Taylor and Whittier's (1995) approach to the analysis of movement culture to explain how MOOC users negotiate meaning at the individual (micro), interpersonal (meso), and broader social (macro) level. At the micro level are the interpretive frameworks and identity talk of individual MOOC users. These underpin what Wuthnow (1987:11) calls the *subjective* aspect of culture. At the meso level are the norms that emerge out of group interaction, and the impacts that ritual and symbolic public discourse have on constructing and maintaining collective identity. These constitute the *dramaturgical* elements of culture (Wuthnow, 1987:13-14). The final level of analysis, the macro level, encompasses the larger context of MOOCs and its influence on users' belief and attitudes towards the MOOC movement. This comprises the *structural* dimension of culture (Wuthnow, 1987:12-13).

CONSTRUCTION AT THE INDIVIDUAL (MICRO) LEVEL

How users present and view themselves in relation to the broader concept of MOOCs is important, not only for understanding the heterogeneity of user views, but also the realities of MOOCs, and the MOOC movement, that they construct.

Identity talk

According to Eyerman and Jamison (1991:45), social movements must be viewed, primarily, from the perspective of participants and, as such, the definition of a movement should come from the participants themselves. Choudry (2009; 2011) similarly supports this kind of 'ground-up' approach to understanding the intellectual work involved the construction and maintenance of social movements *from within*, but says that such an approach has traditionally been overlooked in favour of 'top-down', pre-existing academic categorisations. This thesis chooses not to rely solely on external labels, or conform to rigid theoretical ideas of what a movement and movement membership is or should be. Instead, this thesis argues that, for a genuine social constructionist analysis of social movements, it is essential to understand what Cohen (1996:363) describes as the 'indigenous constructions of group membership' and the movement to which such membership is claimed. In this regard, the MOOC movement need only exist in the eyes of its beholders to be considered a valid concept. In accordance with the famous dictum: 'if men define situations as real, they are real in their consequences' (Thomas and Thomas, 1928:572).

Whether or not a movement is simply an imagined community is neither here nor there. What matters is that people share an understanding that they are part of something bigger than themselves; that they feel part of a collective of people with similar outlooks, motivations or attributes intent on instigating or opposing change in some way (Snow, 2001:2213). This kind of individual identification, as Silver (1997:489-500) points out, is the clearest way to recognise the existence and makeup of a movement. The way that actors use their vocabulary to express and categorise themselves in relation to a broader collective or idea is significant and, as Toch (1966:189-192) claims, should not be overlooked. Johnston (1995:234) similarly points to the value of verbal texts for understanding an actor's cognitive behaviour; for getting to what Eyerman and Jamison (1991:61) term 'the core set of assumptions that gives a particular movement its identity.'

In expressing differences in attachment, the written responses of MOOC users to open-ended survey questions provide first-hand insight into the ways in which users understand MOOCs, the MOOC movement, and their place in (or outside of) the movement. Such responses show, in users' own words, differences in how they construct the movement and their movement identity (or lack thereof). Any attempt to analyse the MOOC movement 'at a level which is too abstracted from the very real

differences, contradictions and peculiarities on the ground’ which work to establish such perceptions is likely to have ‘severe limitations’, according to Choudry (2011:178). While acknowledging the value of self-categorisation and personal expression, this thesis also recognises the limitations of individual responses when studied in isolation. Rather than pinpointing each and every survey response and endeavouring to, as Eyerman and Jamison (1991:2) warn, ‘replace a naïve objectivism with equally misguided subjectivism’, the assessment of movement belief and affiliation here is about locating similarities in user narratives. The individual accounts from the survey present a kind of ‘identity talk’ – as Hunt and Benford (1994) would attest – that, together, inform the overall conversation about MOOCs and the construction of the MOOC movement from the user perspective.

Disparities in the beliefs and identities of survey respondents have shown that MOOCs conjure up very different attitudes and experiences for their users, especially in terms of emotional attachment. Some consider the notion of the MOOC movement abhorrent, saying that such a depiction is overly ‘dramatic’ and makes MOOC users sound ‘like a cult’. Some embrace it with vigour, saying that there can be no doubting its ‘obvious’ existence, that ‘lots of people love them, keep taking them’ and ‘certainly tell others about them’. Others are more indifferent, saying that it’s ‘hard to say’ what they really think or feel about MOOCs and the prospect of a movement. Many users, though, are pretty clear as to where they stand with regards to personal attachment. Those who view ‘social movement’ as a derogatory term are unsurprisingly dismissive of any kind of movement affiliation. Conversely, those who speak of MOOCs as being positively world-changing welcome ‘membership’ to the MOOC movement as a badge of honour. Such differences point to Tajfel’s (1981:45) understanding of identity and self-image, and Gecas’ (2000:96) notion of ‘value identity’ or ‘character identity’, in relation to social movements. From this perspective, identities that conjure up negative connotations, such as deviance, are likely to be denied and those with positive qualities, such as compassion, likely embraced. In other words, the way users talk about their identity in relation to the MOOC movement is tied to the way they perceive MOOCs more generally.

Interpretive framework

Identity talk is intrinsically linked to the construction of identity and the way in which users frame, and reframe, their perception of the world around them (Hunt, Benford and Snow, 1994:185; Snow and McAdam, 2000:54). In the case of this study, the

reality of concern is that of MOOCs and the MOOC movement. Identity talk around MOOCs is essentially the articulation of the relationship between the cognitive interpretation of the individual users, the activities of the broader collective, and the public discourse of providers (Taylor and Whittier, 1995:167-171). How the interpretative framework of MOOC users operates is crucial to understanding the assumptions that underpin identity talk and contribute to MOOC culture at large. As Snow et al (1986:464) and Hunt, Benford and Snow (1994:186) describe, framing processes provide the conceptual link between the formalised objectives and lived experiences of a movement. In the context of the MOOC movement, they highlight the different ways in which users situate themselves in the MOOC sphere and thus come to construct the MOOC phenomenon.

Fundamentally, frame analysis is about 'how cognitive processing of events, objects, and situations gets done in order to arrive at an interpretation' (Johnston, 1995:218). Analysis of the framing strategies of MOOC providers alone, while important for establishing the official construction of the movement, is not enough. The interpretation and sense-making of users – who may or may not affiliate with the movement, or even believe it exists – must also be taken into account (Benford, 1997:421; Eyerman and Jamison, 1991:45; Snow et al, 1986:464). The process of determining how the framing activities of providers is translated to user perceptions of the MOOC movement requires an examination of how users view MOOCs in relation to their own experience. As Noakes and Johnston (2005:12) phrase it, there is a need to compare the representation ('the frame itself') put forward by leaders of the social movement ('the frame makers') with the interpretation of the intended audience ('the frame receivers'). This is the underlying purpose of the online survey questionnaire: to delve into what Johnston (1995:218) terms the 'black box' that is the minds of MOOC users to determine what they think about MOOCs in comparison to how providers have presented them through their common goals.

A look back at the framing processes of Coursera, edX and Udacity, and the shared narrative they eventually reached in the mission statements on their websites, reveals, at the broadest level, a master frame in which the MOOC is posited as a learner-centric and global higher education phenomenon. It is through this generic lens that the common goals of connecting and empowering learners, and promoting access to the 'world's best' higher education, 'anywhere, anytime', are situated. As Figure 8.1 shows, the narratives of survey respondents indicate separate interpretations of this master frame by MOOC movement identifiers and non-identifiers. On one side are the

respondents who have come to view MOOCs as a learning tool; ‘an instrument for improving knowledge, not a community’. They are the ones who said they see MOOCs as providing individualised learning with individualised benefits. The idea of being ‘connected’ in this case relates primarily to course content rather than to other users, indicating a penchant for prioritising the individual over the collective. These users have claimed to ‘study for [their] own satisfaction, not for others’, and that they’re not ‘interested in being part of a movement or ideology’. Flexibility and convenience of having access to world-class education – for themselves – have taken precedence for users of this ilk. This contrasts directly with those on the other side of the model: the users who have come to view MOOCs as a learning community. Those in this category have claimed to identify with, and feel connected to, other MOOC users. They have said they ‘openly promote MOOCs’ and ‘encourage others to participate’. They have also claimed to feel empowered by their communal learning experience, and that they ‘believe in [the] future’ of MOOCs and their democratic potential to make higher education ‘accessible to everyone’ and, in doing so, lead to ‘a better world’.

Ultimately, variations in user perception and interaction have resulted in, as della Porta and Diani (2006:79) and Silver (1997:490) suggest, alternative constructions of the MOOC reality. Neither is more significant or ‘real’ than the other. They just show that not everyone perceives or experiences MOOCs in the same way and, as such, not everyone believes in or identifies with the MOOC movement.

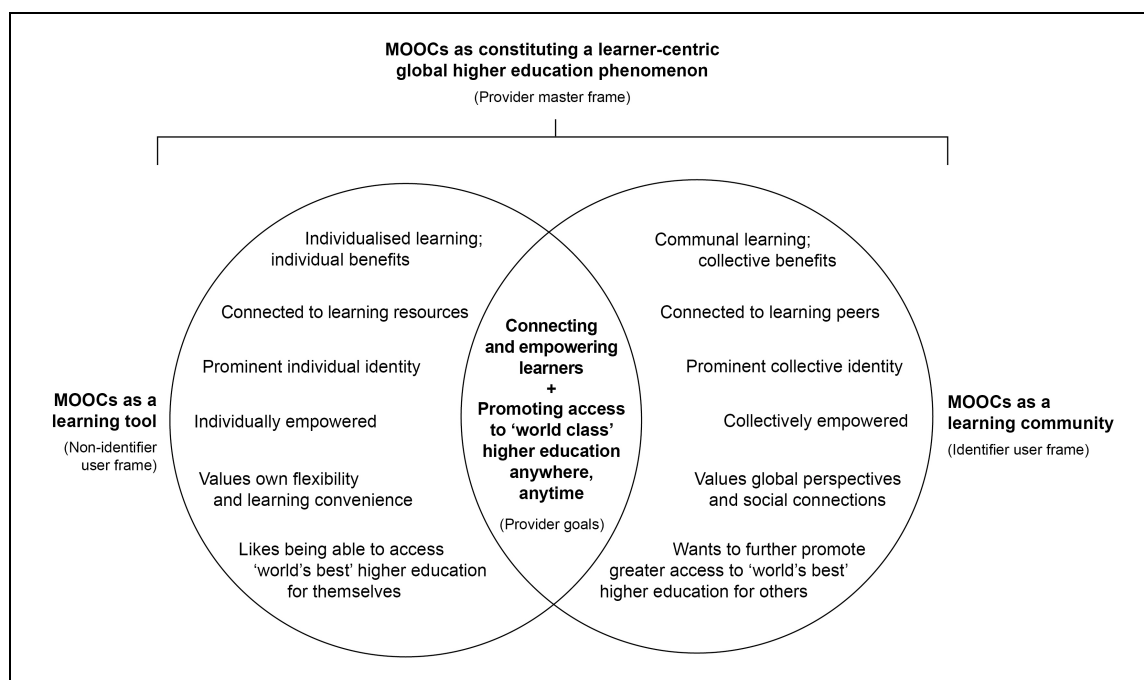


Figure 8.1 How users view MOOCs in relation to the master frame and goals of providers

The ability for such disparate perceptions to fit within the overarching 'idea' of MOOCs comes down to the flexibility of the master frame, with increased generalisability leading to greater inclusivity (Snow and Benford, 1992:140). Because of the broad nature of the MOOC concept, the master frame attracts a wide range of adherents; from those who 'prefer individual learning', to those who wish to be 'part of a global community that is actively learning' together. Basically, MOOCs can appeal to different people for different reasons, and it is these differences in background and experience that shape users' perception of the overarching MOOC agenda.

The construction of identity is linked to the way users interpret certain situations and their place within them and, therefore, how particular frames resonate differently among different types of individuals (Snow and McAdam, 2000:53). As the results from the survey reveal, those who came to see MOOCs as a learning community – one that connects and empowers users through shared learning experiences – were the ones most likely to identify as part of the MOOC movement. Those who came to see MOOCs as a learning tool, however, were more likely to dispel the very notion of the MOOC movement or any affiliation with it. The links between the interpretive framework of users and their belief in, and affiliation with, the MOOC movement are conceptualised in Figure 8.2.

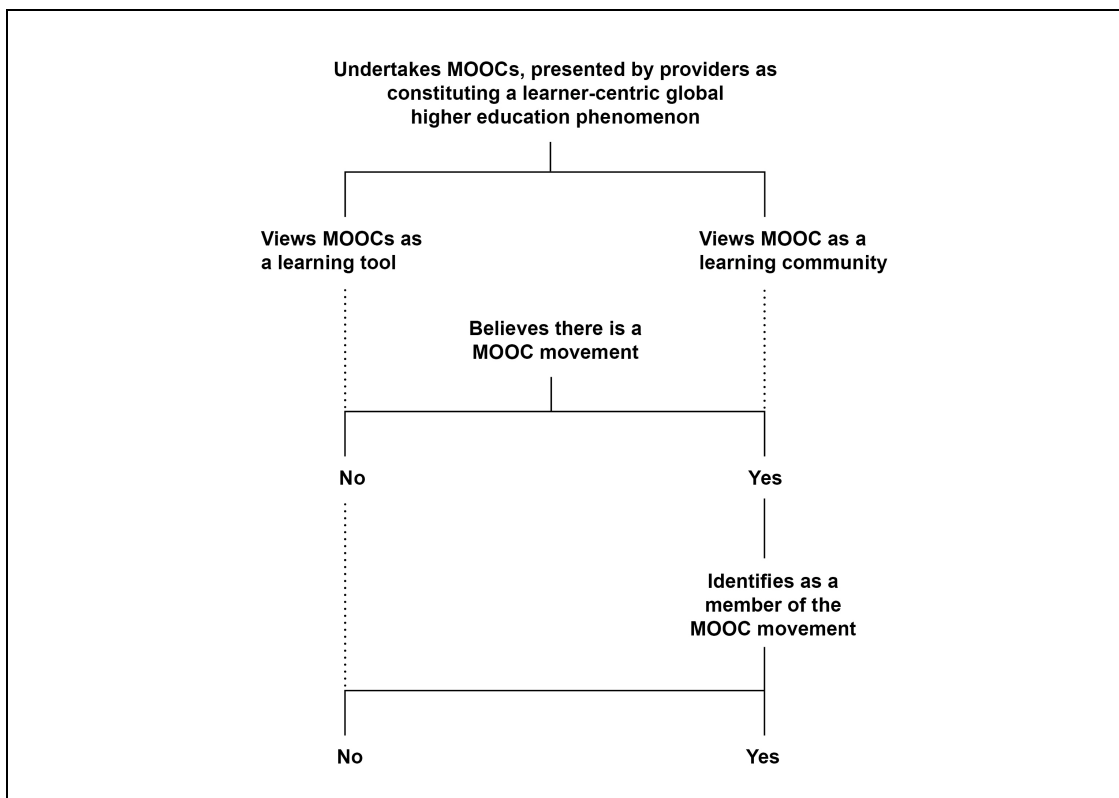


Figure 8.2 How users' belief in the MOOC movement relates to their view of MOOCs

The connections outlined in Figure 8.2 can be explained more thoroughly with the categorisation of different types of users according to their degree of promotion and sympathy towards the goals of the MOOC movement.

User types

The results from the survey prove that not all MOOC users share the same view of MOOCs, or their experience of them. Some users are more attached to the ideology behind MOOCs, some are more attached to their MOOC peers. Some are welcoming of their potential. Some reject their longevity altogether. This disparity in interpretations suggests that there are distinct types of MOOC users, each of which engage with the notion of the MOOC movement, and other types of users, in different ways. McCright and Dunlap's (2008) four category model comprising 'active participants', 'sympathetics', 'neutrals' and 'unsympathetics' is useful for understanding these differences. In the case of the survey of MOOC users, the 'active participants' are most easily identified as the users who said that they believed that the MOOC movement existed, and that they were 'part of it' and have 'contributed to it'. They are the users who engaged and connected with others, and who made it their mission to act as 'pioneers' and 'activists' for the MOOC cause, and 'enthusiastically broadcast MOOCs to everyone [they] know' to recruit more people to the MOOC movement's ranks. The 'sympathetics' are all of the remaining MOOC affiliates who did not express any engagement in promotional activities. They are the ones who, despite lacking a desire to 'evangelise' or recruit others, aligned themselves with the democratic ideals behind the MOOC movement and felt as though MOOCs had become an important part of their lives. At the very least, they felt part of the movement by default of their enrolment, in the sense that 'everyone who participates in the online courses plays a part, however small that may be, in the MOOC movement.' The 'neutral' category is comprised of two groups. The first group includes those who said that the MOOC movement existed but that they were not part of it because they did 'not feel strongly enough about it to become an advocate', nor did they feel invested in its survival or success. The second group is made up of those who had no opinion on the existence of the MOOC movement or their affiliation with it, simply because they were new to the whole MOOC experience and it was 'too soon' to say whether they had 'been swept up by the movement' or not. The final category, the 'unsympathetics', includes the users who firmly believed that the MOOC movement did not exist, either because they thought the user base 'too diverse', the term movement 'too dramatic', or the concept

'too political'. The relationship between these four MOOC user categories is outlined in Figure 8.3, demonstrating how MOOC users are not part of some homogenous group; they have different beliefs, priorities and expectations.

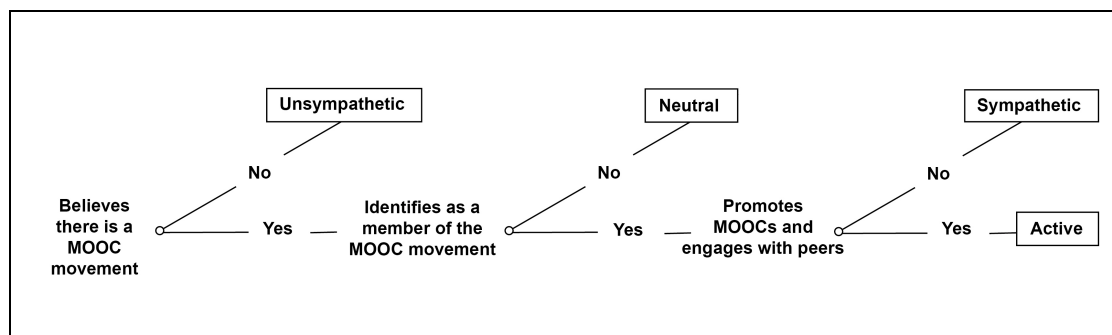


Figure 8.3 MOOC user type as related to movement affiliation

Such discrepancies among users need not preclude the existence of the MOOC movement. They simply show that there are variances in interpretation and participation, inside and outside the movement. Those who work hard to construct an 'outward-looking identity' and engage as part of a collective, like those who viewed MOOCs as a learning community, are more likely to identify as part of the movement. Those who have a more 'inward-looking identity', such as those who regarded MOOCs as individual learning tools for personal gain, are likely to have personalities that are incompatible with the seeking or obtaining of membership to any collective, let alone one associated with MOOCs (Crowley, 2008:721).

Choosing to belong

While there are many reasons why people claim affiliation with a movement, one of them is the 'need to belong'; to establish connections with others and to feel part of a collective (Baumeister, Dale and Muraven, 2000:241; Baumeister and Leary, 1995). It is important to recognise, however, that 'belonging' to the MOOC movement is a choice, and one that each survey respondent had to make. As one non-affiliate survey respondent noted, there is no 'membership card' for having 'joined' the MOOC movement. It exists, for the most part, in the hearts and minds of users. This idea of 'belonging by choice', according to Guibernau (2013:26-49), is a characteristic of contemporary society; that today, there is an increasing expectation that people can, and should, have the freedom to determine their degree of association with any group, ideology or cause. Social movements are but one example.

The interpretation of MOOC movement identity from this perspective helps explain the correlation observed between users' sense of movement affiliation and their overall sense of connection and empowerment. Active construction of one's group identity is said to be an empowering experience because it allows people to 'transcend' any socially assigned roles, such as gender or ethnicity (della Porta and Diani, 2006:109; Guibernau, 2013:27). By choosing to be seen as part of the MOOC movement, and to help construct the idea of the movement in the first place, respondents are thus nominating their place in a broader, (ostensibly) more inclusive collective, with people from all walks of life. The act of articulating one's membership to the movement may also counterbalance the potentially lonely experience of partaking in these large and globally-dispersed online courses, transforming what some would regard as an isolating experience into a shared one.

CULTURE AT THE INTERPERSONAL (MESO) LEVEL

With the feeling of belonging comes a sense of attachment that affects one's behaviour with those inside and outside of the group in question. In the case of MOOCs, group-building and exclusionary behaviours have been very apparent, particularly around post-voting in MOOC forums. The up- or down-voting of posts – especially on Coursera, where the voting mechanism has been the most explicit and widely used – has come to signal conformity or deviation from the majority view. Post-votes communicate who belongs in the MOOC collective and, in turn, is a welcome constituent of the MOOC movement. They also convey a clear message about who does not belong. Such has been the consistency in the use of post-voting across courses that it may be deemed a rite of passage into the MOOC family; a ritual of interaction and legitimation perpetually confirming in-group and out-group boundaries.

Boundary affirming rituals

Ritual is defined here as symbolic behaviour that follows a certain stylised pattern, often with the aim of expressing or maintaining social order and regulating conduct (Guibernau, 2013:99; Taylor and Whittier, 1995; Wuthnow, 1987:109). From a sociological perspective, the concept of ritual is principally traced to the cultural analysis of Durkheim ([1912]1961), who stresses the social, emotional and moral significance of expressive human behaviour in the separation of the sacred from the profane. Far from being confined to an examination of primitive cultures, as Hobsbawm

(1959) suggests, the concept of ritual, when considered more broadly, is useful for understanding everyday social interactions, as Goffman (1959; 1967) proposes. The main consideration for identifying ritualised behaviour is not that there is an emotionally-charged event, but that there is an established pattern of symbolic performance which helps guide behaviour in some way. One basic example of an everyday ritual is the act of indicating while driving a car. According to Wuthnow (1987:111-112):

It contains in a highly abbreviated form all the ingredients of a ritual – it is an expressive aspect of behaviour distinguished, for example, from the more instrumental act of actually making a turn; it communicates something about the position of one driver in relation to others; it is an act rather than merely a belief; and it occurs in stylised or patterned ways that convey culturally comprehensible messages.

The uncertainty of social situations and the intentions of others, when driving a car or engaging in any other activity, is what makes ritual so important for guiding behaviour and maintaining social order (Wuthnow, 1987:112). Ritual also provides a firm platform from which to assess how collective identity is fostered in social movements through observable and repeated patterns of interaction that can enhance or reduce feelings of belonging (della Porta and Diani, 2006:109; Taylor and Whittier, 1995:175-180). As such, it is a very useful concept for understanding how interaction guides users' sense of connection with their MOOC peers and increases their likelihood of claiming affiliation with the MOOC movement.

MOOCs – as large-scale online education hubs that invariably attract a diverse range of users with different motivations, different cultural and educational backgrounds, and different definitions of what is considered socially acceptable behaviour – make for very uncertain environments. It is precisely because the user base of these 'massive' courses is so vast and so heterogeneous that the ritual of post-voting gains such prominence; it is a way of communicating with this virtual crowd. As Turner and Killian (1957:120) propose, crowds are inherently symbolic environments and to understand crowd behaviour is to understand the meaning attached to the symbolic gestures of its participants. According to Durkheim ([1912]1961:262), it is through such gestures that individuals feel part of a collective, and where the presence and expectations of such a collective become clear to insiders and outsiders alike. The repetitious post-voting in the MOOC crowd is best viewed in this context. Post-voting is a performed gesture of approval or disapproval through which the views of the collective are constructed and articulated across the population of each MOOC. It is

explicitly symbolic and dramatic. The only options are to essentially cast a vote that says something is ‘good and right’ or that it is ‘bad and wrong’, and therefore, to show loyalty to a particular side or, through abstinence, remain invisible to both. It is also fundamentally patterned, not only occurring in courses from all three main providers but also recurring to a similar degree within courses and their individual discussion threads. All it takes is one click and a vote is cast; a simple yet profound gesture that can guide the perception of posters in the eyes of others and is easy to repeat over and again.

Negotiated boundaries

Contrary to the views of Collins (2004), ritual and high-level emotional engagement need not be isolated to just face-to-face interaction. Indeed, online communications present a great case study for symbolic expression and both the disruption and maintenance of social order. As Maloney (2013) and Milan (2015) each argue, new media can actually make emotional responses much more explicit, rendering ‘physical co-presence’ an essential ingredient for social exchange, shared experience or group solidarity, no longer. This is certainly the case where post-voting in MOOCs is concerned. The inherently symbolic nature of the positive or negative vote serves as a way to communicate a clear message to the poster as to the acceptability of their comments in a way that is universally expressed and understood by the group. Similarly, while the term ‘ritual’ may bring to mind the more public symbolic gestures that movements engage in, such as protest demonstrations, internal rituals present an equally important site for establishing in-group and out-group boundaries and showing one’s commitment to a movement (della Porta and Diani, 2006:111; Fine, 1995:131). As Ackland and O’Neil (2011:187) maintain, rituals illuminate the ‘boundaries of belonging’ at what Treré (2015) describes as the ‘backstage’ of a movement. Negotiation and maintenance of this us/them divide is key to the reinforcement of a sense of collective identity (Gamson, 1997; Ghose et al, 2008; Guenther, Mulligan and Papp, 2013; Melucci, 1996:73-74; Taylor and Whittier, 1992). To this end, once one’s affiliation to a movement has been decided, allegiance to the views of the collective becomes paramount:

To the extent to which a person identifies himself strongly with any group, he feels ill at ease when his opinions are not those of the group. To the degree to which he feels that the members of a group are ‘his kind of people,’ he will be inclined to bring to the fore those attitudes within himself which will permit him to hold the group opinion as his own (Turner and Killian, 1957:253).

This concept of aligning one's views in an effort (conscious or not) to enhance one's identity as part of a collective helps explain the desire to up-vote or down-vote posts on MOOC forums. It is not a mandatory activity, so there has to be some personal incentive for users to engage in the process. Given that it is only the number of positive and negative votes that is counted, not the identity of the voters themselves, the reinforcement of one's position within the MOOC community seems like a legitimate reason. It is a kind of 'identity-affirming behaviour' (Simon, Trötschel and Dähne, 2008:94). In this sense, post-voting is as much a symbol of how an individual sees themselves in relation to others as it is about acting in accordance with, or against, the pro-MOOC collective. Without additional and identifiable commentary, only the individual post-voter knows where their allegiances lie.

For those on the receiving end of post-votes at least, the symbolic act of post-voting can both reinforce collective mentality and marginalise non-conformism. For those who find themselves in the non-conformist camp, post-voting is a means 'to discourage speaking out, to silence opinions, and to bully' (see p. 139). For the rest, it is a democratic means of cultivating and validating the issues and opinions deemed most important and legitimate by the group at large. The differences in perception and intent of positive and negative votes can be categorised into what Guibernau (2013:105) calls *rituals of inclusion*, which 'emphasise the "expected" qualities of group members...enhance the power and superiority of the group and offer a clear idea of internal hierarchy', and *rituals of exclusion*, which 'seek to identify and punish traitors, to condemn unruly behaviour within the group and to stigmatise aliens and enemies.' Those who receive repeatedly negative scores for their posts are effectively witnessing rituals of exclusion. As a result of this exclusionary behaviour, such users are likely to feel ostracised from the pro-MOOC 'tyrants' intent on 'shutting up' any 'minority views' that dare criticise or deviate from the majority. For such users, MOOCs are not a warm and supportive learning community. Given the correlation between sense of connection and MOOC movement affiliation found among survey respondents, it makes sense to suggest therefore, that those who feel alienated in MOOC forums in this way are unlikely to affiliate themselves with the MOOC movement. It is not necessarily the case that they are – as many of the non-affiliates in the survey would suggest – intent on pursuing a solitary learning endeavour, but that they are, in some cases, essentially forced into doing so because others do not legitimate their views. Basically, those who are not deemed to 'fit in' with the group are prone to having a

more isolated learning experience, regardless of whether they intended it to be that way or not. Conversely, those who are made to feel welcomed by the group, who are encouraged by inclusive post-voting behaviours, are likely to feel as though others value their views. Consequently, they are likely to feel part of a shared learning endeavour, have a strong sense of connection with other users, and be empowered by their communal learning experience. As such, they are also likely to identify as part of the MOOC movement.

When viewed together, both rituals of inclusion and exclusion serve to express what is expected from users who wish to be part of the ‘core’ MOOC community; the champions of the MOOC movement. They each play a role in articulating in-group and out-group boundaries by establishing ‘a little patch of commitment and loyalty with its own heroes and villains’ (Goffman, 1967:113-114).

Hostility in defence

On the forums, some pro-MOOC users see it their duty to condemn anyone who dares criticise those offering what is perceived to be a philanthropic service to the global community from ‘the most prestigious institutions of learning on our planet’ (see p. 144). Such condemnation serves to bolster solidarity among MOOC proponents. It also helps reinforce the image of MOOCs as, above all, a social good that needs to be ‘treasured’. For the users who have ‘jumped on the MOOC train’, and who consider MOOCs as an integral part of their life and something that needs to be promoted to help improve the lives of others, such a rose-tinted image of MOOCs must be protected. As Klandermans and De Weerd (2000:71) note, it is only natural to fend off threats to the positive image associated with a movement that one is affiliated with. The idea that MOOCs can do no wrong, and that users should be grateful for whatever free educational resources they are presented with – regardless of any perceived technical, informational or instructional faults – is a powerful one. It suggests that the altruism of MOOCs trumps any demand for learner satisfaction, and therefore, that MOOCs are effectively immune to criticism from their users. This is certainly true insofar as the pro-MOOC collective’s dismissal of dissatisfied users’ grievances is concerned. It is a ‘blind faith’ mentality that Guibernau (2013:145) describes well:

Those who belong to a group tend to emphasise its positive qualities while excluding negative information and experiences capable of distorting an optimistic image....This tendency to understand, explain and justify the deeds of fellow-members stands in stark contrast with a harsher attitude displayed when judging the deeds of ‘outsiders’.

This idea of the optimistic defence ties in with Knotterus' (2010:49) suggestion that the more that people are engaged in a particular ritual, the more likely they are to perceive a degree of consensus among one another. Essentially, the more people cast votes on other users' posts, the more they are able to see that others feel the same way that they do on certain issues, and so, the greater the potential for collective identity to flourish.

Most broadly, this post-voting, blaming and shaming behaviour comes under the banner of 'indigenous policing' (Cohen, 1996:376). It is active identity work conducted by MOOC users to establish an acceptable code of conduct for membership within the MOOC movement. Though a feature imposed on users by providers, post-voting has become the medium through which users battle to authenticate their place in the MOOC movement; the site of the 'fight for "true" membership status' (Gamson, 1997:192). Such behaviour certainly isn't without its harms, however, especially for those who are unable to be identified as part of the pro-MOOC community, or to any fellow users at all.

Two faces of anonymity

A catalyst for a lot of the tension observed on MOOC forums, especially around hostile remarks and perceptions of bullying and trolling, has been anonymity. Although edX and Udacity have allowed people to create pseudonyms for their identification on forum posts, Coursera has only required users to either post under their real name or under the singular title of 'Anonymous'. This decision has not only created great frustration among its users, it has also fuelled a great deal of distrust and aggression towards so-called 'pests' or 'cowards' who have chosen to remain unnamed to their peers. To understand why the self-identified Coursera users felt such unease requires an understanding of the impact of 'deindividuation' on human behaviour.

Deindividuation is a term used by social psychologists to explain how people act when they are no longer identified as specific individuals, such as through anonymity (Hogg, 1992:84). It presupposes that when people are no longer identifiable, the normal prescriptions for behaviour are undermined. One school of thought suggests that such deindividuation encourages group identity, as there is a concerted effort to separate one's external presence from their individual self. The likelihood of reaching consensus among deindividuated group participants is thus greater, as perceptions of heterogeneity are diminished. The suggestion, therefore, is that, by enhancing perceptions of homogeneity, those who are no longer tied to an identified individual self are more likely to inhibit their behaviour and conform to the norms of the group,

rather than deviate from them (Alberici and Milesi, 2016; Drury and Reicher, 2009; Lea and Spears, 1991; Postmes and Spears, 1998; Reicher and Levine, 1994:145-146; Ren, Kraut and Kiesler, 2007:390; Spears, Lea and Lee, 1990). In this sense, anonymity should, if anything, have a positive impact on the MOOC community, and the prospect of the MOOC movement, by bolstering collective identity and promoting togetherness. However, observations of the forums show that anonymity in MOOCs can be incredibly divisive.

Views expressed by the most vocal anti-anonymous posters in MOOC forums have been much more in line with the second school of thought with regards to deindividuation, which suggests that it has the reverse effect. In other words, rather than diminish uninhibited, aggressive and anti-social behaviour, anonymity encourages it (Christopherson, 2007; Diener and Wallbom, 1976; Festinger, Pepitone and Newcomb, 1952; Reicher and Levine, 1994). The idea is that, because the saliency of both internal and external evaluations of one's actions is muted, the anticipation of feelings of shame, guilt, fear of consequences, or a sense of obligation to others, have less influence over an individual's behaviour to conform to any established moral or social standard (Chen et al, 2008:233; Zimbardo, 1970). This set mentality of 'anonymous = deviant' has come through loud and clear in the criticisms offered by many an anti-anonymous MOOC forum user. There have been repeated calls for those 'hiding' behind the 'mask of anonymity' to stop causing trouble, stop being 'cowards', to show their 'true' selves and stand behind their claims and any criticism directed towards them. Such a negative perception of deindividuation is commonly directed towards online communication, particularly in the land of social media and online forums. This is where the anonymous trolls and cyberbullies roam, ostensibly free of the normative constraints of face-to-face interaction or the potential punishments that may ensue from hostile confrontations (Malamuth, Linz and Weber, 2013:131-133; Moore et al, 2012).

Lost in the crowd

Ironically, this view of contemporary online communication links well with classical social psychological theory, which associates deindividuation with crowd behaviour. The key point of reference is Le Bon ([1895]1947), who argues that when individuals are immersed in crowds, they behave very differently than they would if acting on their own. They become a faceless, nameless figure in a mass where the normal rules of life no longer apply, and where responsibility for one's actions ceases to exist (Festinger et

al, 1952; Reicher, Levine and Gordijn, 1998). As previously discussed, MOOCs are, in many ways, virtual crowds. And in line with Le Bon's view of crowds, observation of forums suggests that many participants of MOOCs engage in fairly hostile, sarcastic and critical behaviours that they would be less likely to carry out in a non-cyber setting.

One of the challenges of operating in this virtual sphere, as with internet communication generally, is that users can manipulate the way they wish to appear to others (Chester and Bretherton, 2007; Segovia and Bailenson, 2013). They can withhold certain information about themselves that they wish to conceal, maybe not from the MOOC providers, but at least from other users. While many MOOC users do adopt a fully identifiable online persona – with what appears to be their real name, a photo of themselves, and some personal background information – there are many who do not offer any such pretence. These are the people intent on exploiting the crowd-like nature of MOOCs, hoping not to stand out or be noticed. Even in this crowd, however, taking on an anonymous identity does not prohibit users from being singled out for their views (if they post to forums), just as having a complete virtual profile does not mean that users will be acknowledged. There are people who wish to be anonymous on forums who are regularly criticised for their contributions. There are others who long for more attention in the 'ghost-town' that some MOOC forums can be. Paradoxically, in the latter scenario, users choose to identify themselves to others in the hope of having meaningful social interaction but are left wanting. Conversely, in the former scenario, people choose to hide themselves from others yet are regularly seen to be inviting confrontation or, in one user's words: 'smear[ing] the discussion boards with their intellectual vandalism' (Participant of Coursera's *English Common Law*, 2014).

Inevitably, as Marx (1999:100) and Ponesse (2014:314) each point out, anonymity is a social phenomenon. There is no such thing as anonymity if there is no one to be anonymous from; there has to be an awareness of the anonymous individual on behalf of the identified audience and some form of interaction between both parties. However, as both Christopherson (2007) and Haines et al (2014:768) note, anonymity can take on two forms. The first form of anonymity comes from removing or withholding identifying information. This is what Christopherson (2007:3040) calls 'technical anonymity'. The second form is about a perception that one is unidentifiable due to an absence of cues such as gender or age. This is what Christopherson (2007:3040) calls 'social anonymity'. Both forms can be found in the online environment, where people have a great deal of autonomy in the way they represent themselves to others. As a famous cartoon from the New Yorker once proclaimed, 'on

the internet, nobody knows you're a dog' (Steiner, 1993). Indeed, any number of physical features or personal attributes may be fabricated or concealed, for reasons of privacy, self-esteem, fantasy or deceit (Chester and Bretherton, 2007; Parsell, 2008).

Despite presenting fertile ground for both technical and social anonymity, the latter often receives the greatest attention when it comes to debates about online interaction. It underpins one of the biggest criticisms directed at online education generally, and MOOCs specifically: that without physical co-presence, learners are deprived of certain social cues and, as such, cannot connect with one another, or their teachers, in any meaningful way (Bejerano, 2008; Berge and Collins, 1995; Bower, 2001; Bowers, 2000; Stoll, 1999). The idea is that they are, therefore, prone to having a more socially alienating experience than those being educated on campus, face to face (Johnson, 2005; Morgan and Tam, 1999). To make up for any potential ill-effects from the lack of physical co-presence, MOOC providers have encouraged users to post under their names and create user profiles wherever possible. As Ren, Kraut and Kiesler (2007:387-388) confirm, this can help establish camaraderie in online environments. In taking this view into account, the hostility directed towards those who choose to remain anonymous is not hard to comprehend. The deliberate act of concealing one's identity could be taken as an indication that membership in the MOOC community, and of the MOOC movement more broadly, is neither important nor desired by some users. For those users who take the idea of the communal nature of MOOCs very seriously, perceptions of others adopting such an 'in it for me, and me alone' approach may be quite insulting and provoke strong and negative reactions.

What this suggests, and what Segovia and Bailensen (2013) make an effort to highlight, is that anonymity has an impact on both the *actors* who take on an anonymous persona, and the *perceivers* interacting with them. From the perspective of the actors, anonymity can encourage greater participation from those wishing to protect their privacy. It can also allow for the expression of ideas without fear of persecution. Certainly, anonymity does provide a level of 'shielding'. Because of the sheer number of anonymous users on Coursera, any criticisms directed towards anonymous posters, however personal, bypass the realm of the individual and enter the realm of the general 'other'. Attacks thus befall the 'anonymous army' rather than any specific user. That attacks on anonymous posters occur precisely because they are anonymous, rather than because of what they say, goes to show the power of influence that anonymity has on the behaviour and attitudes of perceivers.

The name of the game

The hesitation and aggravation towards anonymous posters in MOOCs points to a basic tenet of human cultures whereby people are identified and held accountable by their name because it is the external representation of them as a person in civilised society. As Rains (2007:199) proposes, 'names anchor us in the social world'. They are important for establishing and maintaining trust because they help make sources more credible. By their association with individuals and their actions, they also allow one's reputation to be tracked over time (Hovland, Janis and Kelley, 1953; Marx, 1999). This is no less true in an online environment than a physical one. In an online setting, messages with names attached help create a sense of solidarity and community by humanising the text appearing on a screen. Names show that there is, indeed, a person behind the words, not some abstract virtual machine. Further still, when comments are attached to a real and identifiable person, the potential for flaming behaviour is thought to be diminished (Freeman and Bamford, 2004). However, as observations of MOOC forums suggest, both anonymous and identified users can engage in flaming behaviour. As such, anonymity must not be viewed as the sole contributor to uninhibited behaviour in MOOCs. If anything, anonymity may be deemed more the target of hostility than the source.

The issue that so many MOOC posters have had with anonymous users is rooted in a perception of indifference. If identifiability is considered necessary for effective conversation and the development of relationships, as Marx (1999:105-107) suggests, users who insist on remaining wholly anonymous are easily dismissed as having no concern over their reputation in the eyes of others. They are considered to be willingly perpetuating feelings of distrust among the remaining members of their group (Anthony, Smith and Williamson, 2009:287-288). For Spears and Lea (1992), however, anonymity is not the problem. The problem is the inconsistency in levels of identifiability across the group. Accordingly, for any group to function effectively, all participants must either be anonymous or none of them can be. Without homogeneity in the level of identification, levels of engagement and commitment will inevitably vary (Christopherson, 2007). Furthermore, when anonymity occurs within a group instead of being projected to outsiders, alienation within the in-group is much more likely. This can then cause the group to fracture (Drury and Reicher, 2009:710). The inconsistency in anonymity observed among MOOC users, and the internal divide that occurs as a result, suggests that not all users are equal when it comes to group membership. Those

who identify themselves as part of the MOOC learning community and, in turn, as a member of the MOOC movement, are part of the ‘in-group’. The anonymous users are relegated to the ‘out-group’. The lingering perception of the in-group is that anonymous users are a hostile minority intent on ‘stirring the pot’ or that they are, at the very least, knowingly disrupting the interactive learning experience of others and making a ‘nuisance’ of themselves. The anonymous users reject such claims as being unfounded, and say they ‘believe an opinion should be judged on its merits, not who is speaking’ (Participant of Coursera’s *A Brief History of Humankind*, 2014). Moreover, they say it is nobody’s concern as to who can remain anonymous as one users’ level of identifiability should have no impact on the learning experience of others, especially since ‘forbidding anonymity has not prevented people from being offensive’, or causing disruption on the forums (Participant of Coursera’s *Emergence of Life*, 2014).

To ease tensions, users in many courses have come up with the same solution. Rather than force everyone to post under their real moniker, which has been a concern for many, named users said they would grant those who wished to post under an anonymous title the right to continue to do so on the condition that they at least ‘choose a nickname or handle and add it to the end of each post as a sign off’ (Participant of Coursera’s *A Brief History of Humankind*, 2014). This way, conversations could be more easily tracked, and users could be more recognisable to the group, but still maintain their privacy. The compromise seems to have appeased both sides. Its success proves the power of online pseudonyms or screen names which, according to Gatson (2011:224), comes from the fact that they are ‘chosen, rather than given’ and so are deemed to be ‘a reflection, at least partially, of the true self.’ While fundamentally different from a person’s actual name, and adding little in the way of formal accountability, pseudonyms can bypass a great deal of the angst associated with the purely anonymous posts in MOOC forums. Apart from aiding the flow of conversation by allowing comments to be directed in response to the statements of particular individuals, pseudonyms can provide a means to assess and monitor users’ claims and their eligibility for in-group status.

Emergent norms

Ensuring the integrity and maintenance of membership to any in-group requires the development and establishment of standards of expected and acceptable behaviour (Christian et al, 2012; Terry and Hogg, 1996). For MOOCs, this means establishing the standards of acceptable forum activity in accordance with the views of the vocal

proponents of the MOOC movement. As the classic emergent norm theorists Turner and Killian (1957) propose, when everyday standards of behaviour begin to break down in a social setting, new conventions inevitably emerge to take their place. In MOOCs, the conventions governing face-to-face social interaction – chiefly, identifiability due to physical appearance or name – are often absent or easily manipulated. This renders the potential for widespread anonymity, and the negative consequences associated with it, so much greater. By urging anonymous users to ‘sign off’ their forum posts with a pseudonym, the collective named majority has sought to mitigate these risks by effectively establishing a new minimum standard of forum behaviour for anonymous users to abide by; a standard which such users have been regularly reminded of, and chastised for violating.

Viewed more broadly, the behaviour of all users can be divided into two distinct categories, each with its own set of normative standards. As Figure 8.4 illustrates, the two categories represent the two established interpretive frameworks of MOOC users: those who regard MOOCs as a learning tool (and who are thus unlikely to believe in, or identify with, the MOOC movement), and those who see MOOCs as a learning community (and who are much more likely to believe in and identify with the MOOC movement). Those who reside in the camp of the former have developed very prominent individual standards of behaviour, where the bar for what is considered ‘appropriate’ is internally set by the user in question, rather than by an outside source. Here, there is no allegiance or obligation to other users on the forums, to MOOCs, or to specific instructors or providers. Users can be as critical as they like, since diversity of opinion is important for encouraging robust debate, forging new ideas, and developing new knowledge. The main criterion for a successful MOOC experience is the achievement of a user’s own learning objectives. Whether or not this involves participating in forum discussions depends on the user’s learning preferences and priorities. Meanwhile, those who perceive MOOCs as a learning community have a very different set of behavioural standards. For them, any attacks on a course, instructor, or provider are regarded as an attack on the very nature of MOOCs and, by association, all those who see themselves as part of the MOOC movement. Engagement with other users on the forums for these people is not just encouraged, it is expected. As such, ‘passive users’ can be rebuked for violating the ‘communal spirit’ of MOOCs, since forum participation is believed to be a necessary step to achieving shared learning goals and an all-round positive MOOC experience. These reprimands on anti-social behaviour help cultivate the MOOC ideal among community-minded users by

encouraging those satisfied by their MOOC experience to recruit new users to the cause. Rather than being ‘in it for themselves’, like those in the ‘MOOCs as a learning tool’ camp, these users are ‘in it for each other’. They operate under the impression that it is ‘we’ over ‘me’ rather than ‘me’ over ‘we’, as negative votes on posts that stray from the majority view illustrate.¹⁰

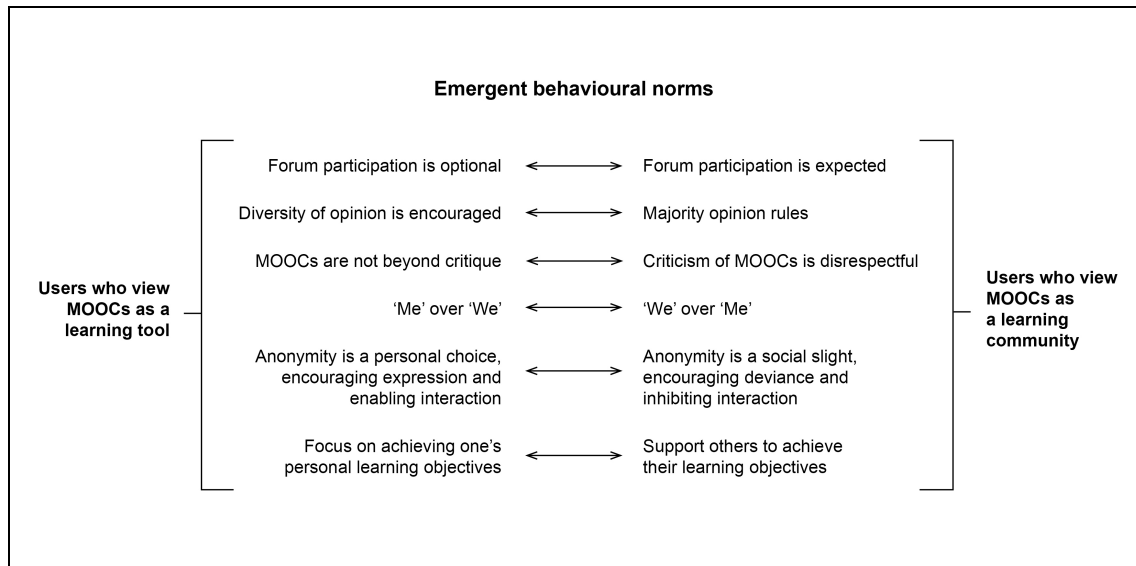


Figure 8.4 Comparison of emergent norms between users who view MOOCs as a learning tool and those who view it as a learning community

Emergent norm theory does well to summarise the key observations of forum behaviour, providing a conceptual bridge between the micro and meso levels of MOOC movement construction and culture. It shows that the ways users interpret and experience MOOCs reflect mutual understandings of the concept and purpose of MOOCs more generally. These shared understandings of the MOOC system each produce a different set of norms that guide user behaviour. One supports the notion of collective identity and identification with a social movement, the other effectively disregards the prospect of solidarity and community entirely. Both are equally important for understanding the experience of MOOC users, and how users act at the interpersonal level. However, to understand the culture of the MOOC movement more broadly requires taking a step back to consider the overarching social context in which MOOCs operate.

¹⁰ Note that this study does not attempt to account for cultural differences at the national level, as in the case of Jetten, Postmes and McAuliffe (2002). Observation of users is limited to course forums and does not incorporate any additional information which may be gleaned from individual user profile pages. As such, the only identifying feature of each forum user is their username (not included in this thesis to protect the identity of quote sources), which cannot always be assumed to represent the user's actual name in real life or provide a firm indication of their nationality.

CONSIDERING THE BROADER SOCIAL (MACRO) LEVEL

The macro level of MOOC movement culture refers to the social context within which MOOCs operate. It takes into account the structural characteristics of MOOCs as well as the characteristics of global social movements generally.

Inclusivity

MOOCs, as their very name implies, are promoted as being 'open' to all (Lewin, 2012; Mulholland, 2013). In many respects, this inclusivity can be taken as an endorsement of community construction in that it encourages diversity in the MOOC user base. However, such widespread promotion of heterogeneity, in educational and cultural backgrounds, such as age, gender and so on, is also the reason why not everyone has considered the MOOC phenomenon to be a movement, or at least one that they choose to affiliate themselves with. As a general rule, groups promoting inclusive membership do not produce as strong a sense of belonging as exclusive associations do (della Porta and Diani, 2006:102-103; Friedman and McAdam, 1992:165). Part of this, Guibernau (2013:112) suggests, is because exclusive communities place much greater demands on their members, meaning that they also have more influence on their lives and make it more challenging to join or leave. Conversely, inclusive groups are much more accessible, but also much easier to depart. One of the greatest criticisms of MOOCs to date relates directly to this issue; that because anyone can enrol in MOOCs without any academic, financial or social obligation to stay to completion, many simply drop out (Gütl et al, 2014; Stein and Allione, 2014). Nonetheless, as Friedman and McAdam (1992) would suggest, the pretence of inclusivity is precisely what has allowed the notion of the MOOC movement to appeal to such a wide audience of users with such diverse priorities and goals. This undefined user criterion is, in theory, a force to promote unity through diversity; a way of cultivating a collective identity that celebrates difference (Decreus, Lievens and Braekman, 2014; Kavada, 2009; Laclau, 2005). Such inclusivity superficially endorses what della Porta (2005:186) terms 'multiple, tolerant identities'.

Where the prospect of the MOOC movement cultivating tolerant and inclusive identities starts to break down is in the course forums. The observed blaming, shaming and post-voting rituals indicate that those who lock themselves into the 'MOOC purist' mindset – where MOOCs can do no wrong, and anyone who says otherwise is not 'one of us' – are in a sense, creating an exclusive identity within the broader inclusive

MOOC framework. The creation and maintenance of boundaries for who is 'eligible' to 'join' the in-group alienates some users while bringing others closer together. To ensure that the MOOC movement continues to grow, rather than splinter into marginalised factions, there needs to be a balance between inclusivity and exclusivity; 'between reach and selectivity' (della Porta and Diani, 2006:102-103).

Precisely where the MOOC movement sits on this identity spectrum is debatable. It can be seen as promoting an open and inclusive identity, but it can also be seen as engendering a closed and exclusive identity. Those examining the data from the online survey may argue in favour of the latter depiction, whereas those who take observations of forum interaction as their sole data source may argue for the former. These different conclusions may be the result of a contrast between actions (on the forums) and attitudes (in the survey), or they may reflect different sets of MOOC users (one on the forums, one in the survey). It is impossible to know the degree of overlap between survey respondents' attitudes and forum behaviour, or the generalisability of survey findings to the broader MOOC user base. At the very least, it can be argued that some users consider the pro-MOOC collective – comprising the most active and vocal proponents of the MOOC movement – to be an exclusive entity with its own rules and regulations. For others it is the heart of an inclusive movement that encourages everyone to join 'for the benefit of all'.

Complexity and fluidity

Most fundamentally, the idea of collective identity centres on shared definitions – of situations, of purpose, and of in-group/out-group boundaries – which are communicated through symbolic action, such as ritual (Kavada, 2009:820). In this study, certain interpretive frameworks have been shown to overlap and produce two distinct conceptualisations of MOOCs: one of MOOCs as a learning tool, and in no way representative of a social movement; the other of MOOCs as a learning community and, by extension, a social movement. It is important to note, however, that these two user categories are not narrow or unicentric; they are broad and multifaceted. The survey revealed that users have different reasons for claiming affiliation with the MOOC movement, not all of which explicitly claim ideological alignment. As della Porta and Diani (2006: 98) stress, 'identifying with a movement does not necessarily mean sharing a systematic and coherent vision of the world; nor does it prevent similar feelings being directed to other groups and movements as well.' Rather, there can be

degrees of overlap in interpretation that combine to form a complex picture of what a movement means, what its goals are, and what participants must do to maintain their membership. Though Kavada (2009:820) points out that it is difficult to know how much overlap is sufficient for the clear identification of a movement and its membership base, Melucci (1996) stresses that it is the construction of shared definitions, even contradictory ones, that is the most important issue to consider. Basically, it does not matter whether there is complete uniformity in interpretation. As such, complexity in views need not prohibit the presence of collective identity; it just shows that there may be multiple identities within one movement or a divergence in the views of those who adhere to a collective mentality and those who do not.

In embracing the notion that the MOOC phenomenon is a complex social movement, one can adopt Chesters and Welsh's (2005:192-193) idea that, like other global social movements, it is 'rhizomatic' in character. Drawing on Deleuze and Guatarri (2008) and their work on complexity theory, Chesters and Welsh argue that contemporary global social movements, such as the anti-globalisation movement, are not comprised of homogenous and hierarchical structures whose adherents have a unified sense of identity and purpose. Global social movements are, instead, comprised of a 'multiplicity of engaged actors' representing a collection of perspectives, groups, ideologies, organisations, histories and desires, and thus, a multiplicity of frames of interpretation, motivation and experience (Chesters and Welsh, 2005; 2006). Within the complexity perspective, there is a strong emphasis on diversity and flexibility, not just in movement membership but also in definitions of what actually constitutes a movement in contemporary society (Tarrow and della Porta, 2005). In this regard, it should not be assumed that the interpretations and experiences of MOOC users would all be the same, or that they would automatically align with the representation of the MOOC movement espoused by the key providers.

As this thesis has shown, there are multiple interpretive frames, as well as points of similarity and difference, in the construction of meaning with regards to MOOCs and the MOOC movement. Some users view a MOOC as a learning tool. Others think of it as a learning community. Some believe the MOOC movement exists. Others consider the concept highly questionable or even repugnant. Some identify as part of the MOOC movement through their advocacy efforts. Others claim affiliation through a sense of community spirit or a shared purpose for effecting change in higher education. Some do not identify as part of the MOOC movement at all because they

consider themselves too anti-social or too little invested beyond their own personal learning needs. All of these differences in interpretation allude to the tension in broader MOOC discourse as to what the presence and widespread participation in MOOCs actually means: is it a popular and autonomous online education resource or is it a blossoming social movement? The answer depends on the user in question.

Conceptualising the MOOC movement in the context of contemporary global social movements

The traditional idea of a social movement is of a collective of actors operating within the confines of a particular nation state, with a specific opponent and specific set of objectives, often to overcome some kind of exploitation or oppression (della Porta and Diani, 2006; Tilly, 2004). This characterisation is in stark contrast to the global social movements of today's interconnected world, which transcend state boundaries and are much less concrete in terms of their goals and adversaries (Moghadam, 2013; Smith, 2007). As this study illustrates, emerging global social movements do not always fit neatly into previous conceptions or analyses of older social movements, such as national, class-based movements (Chesters and Welsh, 2005). Instead of homogeneity there is increasing heterogeneity, not least in what constitutes a social movement but also in the types and activities of participants, as well as the nature of their identification as part of a movement (Bennett, 2012; Cohen, 1985; Colás, 2002; della Porta, 2005; Oliver, 1989). Acknowledging this complexity need not detract from one's ability to study an emerging movement, like the MOOC movement, because social movements need not be analysed in their entirety to be studied rigorously or effectively. Indeed, it would be rare, if not practically impossible, to analyse *all* aspects of a movement, if these were ever so neatly defined. As Oliver (1989:5) states: 'we do not have to draw boundaries around social movements to study them.'

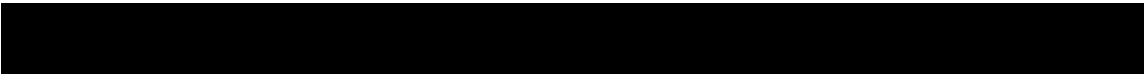
This relaxed approach to the study of social movements is a sign of changing times. Contemporary society is more interconnected than ever before, and the potential for transnational virtual communication ever greater (Castells, 2008; della Porta, 2005; Venkatesh et al, 2013). The assemblage of actors that make up contemporary social movements is the product of membership being largely a matter of individual preference. As Wieviorka (2005:11) proposes:

Each individual wishes to be able to choose his or her struggle, involvement and collective identity; but people also wish to manage their participation in action in their own way, at their own rhythm and be able to stop if they so desire. In the past, the involvement could almost be dictated by the situation; today, it is a choice, a personal decision.

In highlighting personal discretion, further weight is given to the argument that a universal sense of collective identity is not the be-all and end-all of social movement membership, nor is it the root cause of participation (Bennett, 2012; Pries, 2012). A transnational movement like the MOOC movement is not a single, wholly unified entity. It is a shared reflection of the globalised world: fluid, multifaceted, and multinational, operating – at speed, via the internet – across space and time. This equates to a spectrum of affiliation, where some users' emotional and social ties are invariably weaker than others (della Porta, 2005; McDonald, 2002:124; Melucci, 1985:793).

CHAPTER SUMMARY

This chapter has analysed the construction and culture of the MOOC movement at the micro, meso and macro levels, emphasising: (1) the importance of individual interpretation of MOOCs as a concept; (2) the nature and role of interaction between MOOC users in shaping collective identity and attachment to the MOOC movement; and (3) the impact of inclusive entry to MOOCs on users' sense of 'belonging' to a complex social movement, such as the MOOC movement. In addressing these three analytical dimensions in depth, this discussion of key research findings confirms and supports the depiction of the MOOC phenomenon as a social movement in this thesis. It demonstrates how not all MOOC users identify as part of the MOOC movement because of differences in interpretation and experience. However, it also shows that there are strong advocates of the MOOC ideal who develop their own set of behavioural standards, and are eager to promote and protect MOOCs, and those who comprise the pro-MOOC collective, against any unworthy or uninterested 'outsiders'. Further discussion of user perceptions and behaviours takes place in the next chapter, with focus redirected towards understanding how well user attitudes and experiences align with the goals of MOOC providers in light of the observations made here.



9. The consequences of MOOCs revisited

With this thesis focussed on establishing how the MOOC phenomenon is conceived as a social movement, this chapter takes another look at the common goals of the movement's main champions: the MOOC providers. As the official objectives of MOOCs, the providers' goals – of promoting 'anywhere, anytime' learning, expanding access to the 'world's best' online education, and connecting and empowering users – are viewed throughout this thesis as the intended consequences of the MOOC movement. In examining the key research findings more closely, this chapter looks specifically at how the attitudes, behaviours and lived experiences of MOOC users compare with these provider objectives. It also addresses how the unintended aspects of MOOC culture, discussed in the previous chapter, may be helping and hindering the success and longevity of MOOCs, as an educational resource and as a social movement.

INTENDED CONSEQUENCES

A closer look at 'anywhere, anytime' learning

With only a minority of users citing time and distance as reasons for choosing to enrol in MOOCs over other forms of higher education (see Tables 6.2 and 6.3), it is clear that participation in MOOCs appeals to users for the same reason that online education appeals to people generally. It is not necessarily because it allows people who could not previously partake in higher education endeavours, due to geographical or financial barriers, to become involved. It is because it offers a more flexible form of study than may be achieved face to face. Such flexibility means that users can retain employment while studying at a time and place that suits them. It also means they can sample different subjects and course providers, instead of prioritising one from the get-go, and that they can enrol in courses without a long-term commitment of time or money.

For MOOC sceptics, the major criticism of MOOCs is that most enrolees are well-educated people living in wealthy developed countries, rather than uneducated people living in less developed and poorer ones (Christensen et al, 2013; Ho et al, 2015; Ho et al, 2014). Certainly, this study confirms these findings, thereby suggesting that the goal of 'anywhere, anytime' learning – at least in terms of the democratic sentiment that MOOC providers are so keen on propagating – is not being achieved. That said, the 'convenience' interpretation of the 'anywhere, anytime' mantra need not be viewed as a departure from the goals of MOOC providers. The catchphrase is just as applicable to flexible learning for everyone as it is to the accessible learning for people in more disadvantaged or remote areas. Moreover, 'anywhere, anytime' learning can also be taken to the other extreme, not just giving users the option to compartmentalise their learning time in amongst other activities, but also to make learning their main priority. Such an interpretation applies to the users surveyed in this study, for whom the most common reason for participating in MOOCs was personal enjoyment and/or curiosity. Basically, a love for learning was the main drawcard, not social kudos or formal qualifications, or even geographical or time constraints. Given that more than three quarters (78%) of survey respondents already had at least an undergraduate degree, and almost half (42%) had a postgraduate degree (see Table 6.1), this lack of desire for formal qualifications is hardly surprising. These people already have high-level qualifications, so why would they necessarily want, or need, any more?

That these people have been willing to pursue further, non-accredited education, especially while working or undertaking more formal study, highlights one of the most interesting observations from this study: that MOOCs have a strong pull among the self-confessed 'lifelong learners'. For these curious minds, the prospect of 'anywhere, anytime' learning means that there are no restrictions on where they can study, or how much they can study. With no strict rules about course loads or criteria for subject majors, MOOCs offer up a platter of learning potential for those hungry to know more. Many users have even called themselves 'addicts' of MOOCs, saying that they have become 'a daily part of [their] life' and that they 'suffer from withdrawal' if not enrolled in at least one MOOC at any given time (see pp. 91-92). One survey respondent even said they had obtained '153 MOOC certificates' as early as October 2014. Assuming that no real harm comes from these 'addictions', such lifelong learning endeavours should surely be encouraged. But does equating 'anywhere, anytime' learning with 'everywhere, all the time' learning mean, therefore, that MOOCs are

fuelled primarily by the demands of the educationally-rich instead of the educationally-poor? That they are catering to the greedy instead of the needy? Not entirely.

Putting the level of educational attainment and motivations of participants aside, one should not discount the fact that, among the 2,161 survey respondents who stated their country of residence, responses varied greatly (see Appendix V). There were 112 nominated countries of residence and, overall, one third of respondents were identified as living in developing regions, according to the United Nations geoscheme (see Appendix VI). Although less than 1% of respondents were identified as living in the countries that comprise the world's least developed regions, in terms of actual numbers, this percentage still equates to 15 people (see Table 6.1). Given that these countries would not be comprised of predominantly native-English speakers, and their population would, by their nature as the world's least developed countries, have low-levels of educational attainment, this number is still quite substantial when considering that only English-speaking university-level courses were included in the study's scope. However, a closer look at the data reveals that all of these respondents have university qualifications: 10 have a bachelor degree or equivalent level qualification, four have masters degrees and one has completed a PhD. In light of this information, the idea of 'anywhere, anytime' learning as a way of reaching out to the poorest, most educationally-disadvantaged regions of the world looks less plausible. It confirms the critics' view that even though people in the world's poorest countries may be accessing MOOCs, so far 'they are students that have already received an education. They're already the elites in their countries, if you will' (Robertson, 2015).

Nevertheless, further examination of respondents identified as living in developing countries more generally shows that there are some users whose highest qualification was at the vocational or technical sub-degree level (10%), and others who had no post-school qualifications at all (18%). Though there is no indication of how well these particular users have performed in the MOOCs they have taken, or whether they actually completed them, their presence in the courses in the first place is still worth noting. Despite not making up the majority of users, they nonetheless show that MOOCs do, indeed, have extensive global reach. They also show that MOOCs are making their way to developing nations, even when the language of instruction is geared to the developed world, and the Anglocentric regions in particular. In fact, the survey responses for the questions regarding motivation to participate in MOOCs actually showed that learning English is precisely why some users enrolled in the first

place (see Table 7.1); a point which Li (2015) has also noted with particular reference to Chinese MOOC users. These are issues that critics should keep in mind when deriding MOOCs for predominantly offering courses in English, and for not appealing to the global community more broadly.

The dangers of claiming to be the 'world's best'

In many regards, the act of highlighting the esteem of MOOC creators has had precisely its intended effect; it has lured participants by way of reputation. While users may not have known what to expect specifically from MOOCs, they have assumed to know what to expect from the internationally-renowned universities and technology companies delivering them: education of the highest order. What respondents have suggested, however, is that claims of offering the 'world's best' present a double-edged sword for MOOC creators (see pp. 107-110). The downside of instilling blind faith in superiority is that users 'expect more'; they have 'a higher trust' that they will not be disappointed. So, when experiences of MOOCs fall short of the grand vision, trust is easily broken. This, in turn, renders the reputation of MOOC creators vulnerable to severe damage. There is the potential, as one survey respondent contended, 'to make the institution as a whole look foolish'. At the very least, there is a risk that the 'world's best' façade will be shattered, and that MOOC creators will have to fight for the attention of users among each other on an even playing field, reputations be damned.

As many survey respondents have noted, claims about international reputation when it comes to university rankings are often based on research outputs, not teaching, and, as one respondent put it, 'being a good researcher does not imply that you are a good teacher'. MOOCs are thought to be no different in this regard (see pp. 109-110). Just because most MOOCs are run by prestigious universities does not automatically mean that they make for good learning experiences, or that they are taught well. In the words of another survey respondent, 'even Nobel laureates can be poor teachers.' Such criticisms of MOOCs taught by high-profile instructors from high-profile universities make for especially poignant reading. As do comments about how experiences of bad MOOCs make some users 'question the quality of [the creator's] on-campus courses' and how this can then cause users' opinions of even the most prestigious universities to 'drop considerably'. Such comments indicate that giving so much weight to the 'world's best' label can actually have negative unintended consequences for prestigious institutions that deliver poor MOOCs. This, somewhat paradoxically, gives the lesser-known institutions that provide successful MOOCs greater legitimacy in claiming a new

‘world’s best’ status. As one respondent suggested, just as ‘brilliant scientists [can] deliver mediocre courses’ so too can ‘mediocre scientists deliver excellent courses.’ For so-called ‘second-tier’ universities, experience-based perceptions of MOOC quality and delivery may have positive unintended consequences. Rather than being in the shadow of the prestigious institutions that have popularised the MOOC concept, the MOOC platform may ultimately help increase the global presence of the lesser-known institutions that choose to deliver them, and deliver them well. While their brand recognition may differ, all MOOC creators will inevitably share the same stage. Those deemed to be the best performers will shine through the most brightly.

Of course, for lesser-known institutions to gain such recognition, people need to be aware of, and actually participate in, their courses to start with. The way that Coursera, edX and Udacity are set up certainly helps with this, as often it is the subject matter that is given the greatest prominence, not the provider. That MOOCs are, by and large, free also enables participants to vote with the clicks of their mouse. Navigating in and out of courses would not be so easy if money were involved, as there would be more pressure to not lose out financially. Indeed, most (90%) survey respondents have said that lack of tuition fees means that they, as users, do not have to worry about paying to learn (see p. 111). More than that, it means that they do not have to worry about being stuck with courses that they feel will be ‘a waste of time’ (see Box 6.2). Whenever courses turn out to be disappointing or not meeting expectations, the lack of course fees grants users the freedom to ‘shop around’ for other courses more to their liking. In this sense, rather than viewing attrition solely as a negative quality of MOOCs, that is, as an indication of a lack of commitment on behalf of participants, it should be viewed as a sign of the choice presented to participants. It shows that they are not forced to engage with learning material that they find inherently unengaging or uninteresting.

On empowerment

In their mission statements, providers have said that, through MOOCs, users can be empowered to learn ‘in the classroom and around the globe’ (edX, 2013a); ‘to advance their education and careers’ (Udacity, 2013a); to ‘improve their lives, the lives of their families, and the communities they live in’ (Coursera, 2013). The implication is that MOOC providers view empowerment primarily in social and economic terms, and that success in these areas is underpinned by education. Information obtained from the survey conducted for this study reveals that, from the economic perspective, one could

say that MOOCs have been empowering users in the sense that the majority (69%) of respondents believed they could improve their job prospects, and thus earning potential, through MOOCs. In terms of social empowerment, however, MOOCs would not be seen to be so successful, with only 39% regarding MOOCs as having the potential to foster relationships and networking potential. In terms of education, MOOCs could certainly be considered, at least as far as the survey is concerned, to be achieving their empowerment objective, with 93% of respondents suggesting that MOOCs have given them control over their education (see pp. 119-120).

To expand on the providers' conception of empowerment, and to see how else users may be affected by MOOCs, two other established dimensions of empowerment – the political and the psychological – have also been considered in this study. The psychological empowerment to come from MOOCs was shown to be high among survey respondents (91%) and focus group participants alike. The focus group respondents were particularly keen to express that MOOCs are not just about adding layers to a resumé (although this may prove beneficial in the long term). They said that MOOCs are about giving people 'the confidence to actually try things', to expand their minds and skillsets in ways that they may not have been able or willing to attempt before for a range of reasons (see Box 6.3 and Box 6.4). Such reasons may include financial burden, grade anxiety, or even social anxiety with regards to studying in close physical proximity to others. The political dimension of empowerment has been less prominent, not really featuring in focus group discussions. In the survey, however, the concept of political empowerment has resonated with some respondents. Though not all respondents came to see MOOCs as a way for them to make their views heard, more than half (56%) of respondents did reach this conclusion (see p. 119). This suggests that MOOCs do have the potential for lively interaction in discussion forums, and that some users view these forums as a great arena to voice their opinions on a whole range of issues, and to a potentially massive audience no less.

On a scale combining all of these various dimensions of empowerment into one composite measure, ranging from 1 being weak sense of empowerment to 4 being strong sense of empowerment, the mean score for all survey respondents was 2.84 (see p. 120). On the whole, therefore, respondents could be deemed to have been more empowered than not by their MOOC experience. Evidently, respondents' sense of empowerment had practically no correlation with their sex or employment status and a fairly small negative correlation with their age, qualification, as well as their country of residence. It also had a small positive correlation with their perception of choice in

life generally (see Table 6.4). The most robust association was with sense of connection (see Table 6.6). This suggests that provider goals appear to be inherently intertwined, and that for users to be empowered by MOOCs across the multiple dimensions of empowerment, they are likely to also need to have a strong sense of connection to other MOOC users, and vice versa. As such, providers would do best to always consider these two goals in tandem.

Sense of connection

When asked about establishing social connections in MOOCs, focus group participants said that the lack of physical co-presence can make for somewhat ‘stunted conversations’ (see Box 6.6). They said that, even when discussions are taken away from the asynchronous communication on official course forums and into synchronous online video chats (such as Skype or Google Hangout), the issue of interacting with large numbers of people via the web is not solved. These negative perceptions of online interaction may be because the focus group participants were predominantly university students studying on campus. As such, they may have been automatically more inclined to prefer learning face to face. It may also be because they said establishing social connections had not been their priority with MOOCs. They placed much greater emphasis on expanding their knowledge and skillset than their social network (see Box 6.10). Most focus group participants were basically of the mindset that it was easier, and essentially the purpose of MOOCs, to connect with course content than it was to connect with other users.

Some survey respondents who described themselves as self-directed learners are best placed in this ‘connected to content’ category. Others, who came to view MOOCs as a learning community and, by extension, a social movement, are best placed in the ‘connected to users’ category. Such depictions of association are based on the overall assessment of different user types identified from the survey (see Figure 8.3). The specific measure of sense of connection among survey respondents, though, comes from a composite scale devised from established indexes of group identity and sense of community (see Chapter 4 for further information). On the scale, ranging from 1 being low sense of connection to 4 being high sense of connection, the mean score for all survey respondents was 2.55 (see p. 127). This suggests that, on average, survey respondents have felt more connected to other users than not, but that the strength of connection has not been especially strong. For some users (who scored closer to 4), there has been a very strong sense of connection to other MOOC users. For others (who

scored closer to 1), there has been very little to no connection at all. Nonetheless, since the mean score rests slightly more towards the high end of the scale, it could be argued, at least as far as the survey respondents are concerned, that providers have, on the whole, been achieving their 'connection' objective – but only just.

Since sense of empowerment has been shown to be strongly correlated with sense of connection, it may be concluded that users who feel more positively about their MOOC experience, and the effect that it has had on their life, are the ones most likely to want to share their experience with others. Engaging on course forums to help others understand difficult problems or concepts is just one way of 'giving back' and connecting to peers. Claiming allegiance to the broader MOOC movement is another.

With the survey data showing that respondents living in less developed regions have higher connection scores than users in more developed regions (see p. 126), it could also be concluded that people living in more rural or remote areas may find greater social value in MOOCs compared with people living in highly industrialised areas. This means that there is great potential for MOOCs to serve the geographically isolated in more ways than just providing them with access to previously inaccessible higher education. They can also provide a portal for contact with the outside world and help foster new social bonds with people in (potentially) far away places.

There is something to be said about social connection and age, too. While younger people, according to the focus groups, may be more inclined to want to go to university, to learn face to face and interact with other young people on campus, they are also the ones who are the most-tech-savvy and, thus, the most capable of studying online through MOOCs. However, what the survey findings indicate is that older learners, who, on the whole, are less likely to be computer and internet-literate, may be the ones most likely to benefit, socially, from studying online through MOOCs (see Figure 6.2). These older users may already have a university degree, and thus have little desire for further qualifications. Participation in MOOCs may, therefore, be just as much about overcoming loneliness as about achieving an intellectual goal.

UNINTENDED CONSEQUENCES

The unexpected positives of MOOCs

The prospect of undertaking a MOOC to battle loneliness relates directly to users' motivation for participation. In the survey of MOOC users, self-help or improvement with regards to physical and mental health was shown to be the driving force behind 38

respondents' participation (see Table 7.1). A further 39 emphasised the preventive cognitive health benefits of MOOCs in terms of 'forestalling forms of dementia' and diminished brain function due to old age or illness. This information was volunteered by respondents who chose the 'Other' category in the question on reason for participation in MOOCs. Since the provision of this specific information was self-directed, the pattern of similarity amongst the 'Other' respondents is particularly notable. Clearly, if these respondents felt strongly enough to write in text of their own accord, it suggests that their reasons for enrolling had high salience in their view of MOOCs and why they enrolled. As such, weight must be given to that which has been said. What is most apparent from these self-written responses is that many people use MOOCs for a range of reasons, and not all of them are educational. This could be regarded as a positive unintended consequence of MOOCs. Users are not only participating in MOOCs to better their intellect or their career, as providers had proposed; they are participating to better themselves physically, emotionally and psychologically, too.

The trust that users placed in MOOCs as a means to pursue self-improvement objectives is demonstrated by the candid posts scattered across MOOC discussion forums, like those where users have written about how they 'suffer from severe depression', how they or someone they know 'struggle[s] with addiction', or how they 'can't control their appetite' or their weight (see p. 132). Such comments show that some users have adopted MOOCs as a means to reach out to like-minded users, to discuss personal issues, and to work towards understanding themselves and others better. In effect, MOOCs have been employed by some users as the first step to establishing how they can go about implementing possible lifestyle changes or providing emotional and practical support in time of need. Such candour about using MOOCs as a means for self-help has been especially evident in MOOC psychology courses that focus on mental health and addiction, as well as other courses that look at physical health and nutrition. Importantly, such displays of frankness have been by no means restricted to users posting under 'anonymous' or otherwise vague usernames. They have been evident among users posting under their real names, too. One could assume that, if users were taking these kinds of courses as part of a degree program at a university, enrolment would mainly be because of intellectual curiosity in the subject matter or as part of an academic specialisation. Participation would be considered primarily as part of an educational endeavour, not as a means to understand and treat one's own health concerns. With MOOCs it seems, the objectives are mixed. Because

of their modular format, users can pick and choose whatever courses they like for whatever reason; they need not be pursuing a stream of courses in one subject to deepen their understanding of a particular field or topic. Instead, they can opt to undertake any course for any purpose.

The value of MOOCs beyond traditional (that is, accredited) notions of education has been well demonstrated by users' attitudes towards grades and certificates. Despite claims that they have little meaning to the outside world in any formal sense, they mean a lot to some users. They have become a symbol of users' hard work and dedication towards mastering a particular subject; a form of 'recognition for their accomplishments' (Participant of Coursera's *Emergence of Life*, 2014). The high perceived value of achievement certificates and informal course grades could be deemed an intended, albeit implicit, consequence of MOOCs, since providers want users to hold MOOCs in high regard no matter their association with academic credit. However, the degree of aggression towards poor informal grades, and thus potential denial of a course certificate, is unlikely to have been intended. Some disgruntled users felt so cheated by peers who marked their assignments down that they demanded that course staff step in and have them reassessed, as 'a matter of fairness' (see p. 137). No way had they worked this hard not to have something good to show for it in the end. That this 'something' could be as simple as an informal course grade or certificate of completion illustrates the power that grades have for some learners. It does not necessarily matter if their work in MOOCs is never counted towards a qualification; what matters is that their work is 'counted' in some way, shape or form, and that this recognition reflects positively on them.

This desire for recognition appears to be both intrinsically and extrinsically motivated. Because most MOOCs do not have tuition fees or the ability to be counted towards formal qualifications, pursuance of a MOOC may largely be associated with those who are intrinsically-motivated learners; people who like learning for the sake of learning and find the prospect of external rewards, like formalised grades, anxiety-inducing and detrimental to the learning process, as well as to general wellbeing (Conroy, Kaye and Fifer, 2007:239-240; Docan, 2006:30; Harter, 1978:797; Kirschbaum et al, 1996; Nichols and Berliner, 2008; Santos, 2005). At the same time, MOOCs may be deemed to appeal to the extrinsically motivated, those driven by the prospect of external validation, and who thrive on being graded by others and obtaining certificates as testaments of their efforts (Giroux, 1988:38; Pulfrey, Buchs and Butera,

2011:684; Thomas and Oldfather, 1997:115-116). Given that the grades in MOOCs rarely equate to a formal assessment of one's mastery of material, the reward is, by and large, a personal one. Thus, while the tokens of validation – that is, the grades and certificates – may be 'external' to the user, the value that the user attributes to these tokens is entirely their own. Essentially, the drive to succeed and be recognised has to come from 'within' for the 'external' endorsement to have any real significance. For some users, there is no significance. To them, grades are not worth worrying about and certificates of achievement are not necessary, nor are they worth paying money for. For others, 'the silly certificate actually does make a difference to [their] motivation to tackle the assignments vs. just watching the videos' (Participant of Coursera's *Paradoxes of War*, 2014); it is what continues to propel the whole MOOC experience along. Self-confessed 'MOOCaholics' thrive on 'collecting certificates'. Some of them even talk about printing them off to frame and place on their walls at home. Clearly, while not explicitly discussed as a goal of providers, the high value that some users attribute to certificates and grades in MOOCs – and the personal satisfaction that can be gained from them – should not be underestimated.

Another observation that could be deemed an implicit goal of MOOCs – considered unintended for the purposes of this study since it was not explicitly mentioned in providers' mission statements – is the level of peer support in course forums. The widespread willingness to help others in their quest to understand a particular concept or problem shows that MOOCs – despite being designed to be done by individuals, on their own merit, and entirely online – do not have to equate to solitary learning experiences. They can, instead, foster highly social (albeit virtual) learning experiences. The collegial learning environment that MOOCs have been shown to generate is in part due to the inclusive nature of MOOCs. In theory, everyone is welcome, so experiences and capabilities will always vary. Some people will fall into the category of helpers or supporters, others will be the receivers of such help and support. For those who view MOOCs as a community, it is the inclusiveness of MOOCs that promotes this attitude that everyone is in a course together, and so everyone has the opportunity/responsibility to help others wherever they can. Responses from the online survey suggest also that seeing people struggle in a course, especially those who post questions that go unanswered, can actually be a big motivator for the less-confident users to step in and lend their knowledge and skills to others. Even if it is not something they would normally do, or feel capable of doing 'properly' or to a high standard, the

suggestion is that in MOOCs, where there are far more learners than there is teaching staff, 'helping out even in the littlest ways is rewarding'. And when users see others providing advice, more advice inevitably follows; displays of support beget more support, resulting in a snowballing of community spirit. It is this kind of solidarity, and the positive feelings associated with it, that feeds into the concept and continuance of the MOOC movement. Peer support is a critical part of ensuring that the MOOC movement continues to grow, as without a supportive environment that encourages users to persevere – with their studies and in engaging with one another – the perceived benefit of membership to the MOOC movement would likely wane, and the movement itself would likely dissipate over time. However, as this study has shown, not everyone is overcome by the same sense of solidarity in MOOCs. Indeed, there can be great hostility found in the course discussion forums, and this can cast MOOCs, and the MOOC movement, in a somewhat negative light.

The negatives of MOOC participation reconsidered

The ritual of post-voting in MOOC forums helps serve a communicative purpose. It allows users to speak without words, using only a symbolic gesture to demonstrate agreement or disagreement with others. However, as with most ritualistic behaviour, the intended message of such communication can also have unintended consequences, not all of them positive (Wuthnow, 1987:104-108). Whatever the intention of specific post-voters, it is the perception of vote-receivers that has the biggest potential to undo the positive and inclusive image perpetuated by MOOC providers. It may be that there is no malice behind a certain user's negative vote, but the impact that it can nonetheless have on the original poster can be quite significant. What comes across from the red downward arrows on Coursera in particular, is simply that 'you, and your views, do not belong here'.

As Wuthnow (1987:105) would attest, some users may be quite unaware of how post-voting can come across: hostile, demeaning, and oppressive. For others, such antagonism may be precisely what is intended. The latter certainly rings true in terms of the general behaviour towards anonymous posters, where ridicule and suspicion of so-called 'anonymous trolls' have been common and recurring themes across course discussion forums. Evidently, allowing people to employ anonymity in MOOCs proves very troublesome to a lot of users. Even in an online environment, where people are highly unlikely to ever have any contact in the real world, or indeed, any contact beyond

a particular MOOC, being able to ‘put a name to a face’, or in most cases, a post, holds great weight. So much time is spent debating the credibility and motives of anonymous posters that could be better and more productively spent discussing course content. Clearly, for some, anonymity is a barrier to social bonding and effective communication that simply cannot be overcome. In this regard, anonymity may not only be interfering with the overarching educational objectives of MOOC providers, it may be undermining the connectivity goal as well.

That being said, there are some benefits associated with online anonymity, particularly around empowerment, which MOOC users have themselves highlighted (see pp. 147-149). Certainly, anonymity is recognised as having positive psychological effects, particularly in online settings (El Shinnawy and Vinze, 1998; Haines et al, 2014; Helms, 2001; Whitlock, Powers and Eckenrode, 2006; Williams, 1988). There are also many other justifications for its use in online environments, such as that it: (1) allows for increased participation of minority groups or opinions; (2) facilitates discussion on sensitive issues; (3) emphasises content rather than speaker’s attributes; (4) protects privacy, self-esteem and personal safety; and (5) encourages creativity and idea generation (Le Hénaff et al, 2015:91-92; Marx, 1999:102-104; 2004:148; Miyazoe and Anderson, 2011:176). Because of any or all of these reasons, the potential to learn anonymously may be precisely what is empowering about MOOCs for some people, rather than the access to the educational materials themselves. The option for anonymity can allow users to have a voice that they might not otherwise express. This can be politically empowering. It can allow users to interact in ways that they may not if they were identifiable. This can be socially empowering. Moreover, without a name to be ‘shamed’ by, users can try to learn new things without fear of negative repercussions for themselves should they fail. This can be psychologically empowering.

Whatever its potential downsides, anonymity is unlikely to disappear from MOOCs any time soon simply because the arguments for and against its use are not so easily resolved. Below are some of the most prominent dichotomies around pro- and anti-anonymity stances, as outlined by Marx (1999:109):

Liberty and order; accountability and privacy; community and individualism; freedom of expression and the right not to be defamed or harassed; honesty in communications and civility/diplomacy; creativity and experimentation versus exploitation and irresponsible behaviour; encouragement of whistle-blowing and due process; the right to know and the right to control personal information; the universalistic treatment due citizens and the efficiency of fine-honed personal differentiations; the desire to be noticed and the need to be left alone.

The social tension between each of these dichotomies confirms why pseudonyms are a good compromise in MOOCs for maintaining the greatest number of participants possible. They help provide order to forum discussions as well as some degree of accountability to what is being said. They simultaneously enable users to control the amount and type of information they divulge to fellow users and provide some level of freedom from the rules governing interactions in everyday life. That the adoption of pseudonyms has emerged as acceptable practice for people wishing to remain formally unidentifiable shows that norms surrounding face-to-face interaction do still have resonance in the online environment. People do still want to interact with a real person, not a virtual persona. This desire to connect with 'real' people also highlights the paradox of anonymity in MOOCs. While it seemingly has a negative consequence for social interaction and connection on forums, in the end, it helps to reinforce it. Attitudes towards anonymity, therefore, show that MOOC users may be much more emotionally invested in forming social bonds than they ostensibly appear.

Similar conclusions about attachment can be made in relation to blaming and shaming in the sense that the act of defending MOOCs against their critics can work to promote social cohesion among MOOC proponents. By turning any criticisms back onto the critics, MOOC proponents give the impression that MOOCs are basically untouchable, and anything other than their 'democratic potential' and 'altruistic pursuits' is not worth discussing. That being said, critical feedback – not just towards the instructors, but also towards the user interfaces – may actually help MOOCs improve and expand in the future. Shutting down all negative feedback, including the constructive instances, could therefore potentially undermine the durability and success of MOOCs, and the MOOC movement, in the longer term.

In reflecting on what they liked most about MOOCs, some survey respondents claimed that there are 'good quality, interesting discussions on the forums', with 'people from all over the world' coming together to interact 'in one place' and discuss 'similar interests and goals'. Other survey respondents, however, have said they have been 'disappointed with the lack of communication with other participants', and that they are frustrated that not all forums have been set up in a way that promotes dialogue over prolonged periods; a point that many users have made clear on the forums themselves (see p. 151). That being said, even on Coursera, where the forum structure has been considered the 'ideal' format for MOOCs, relatively few course participants have even looked at the discussion threads let alone

actively participated in them.¹¹ With course enrolments often in the tens to hundreds of thousands, the presence of so many discussion threads with no replies at all, as well as little to no views, is somewhat troubling for the prospect of MOOCs, both as an education resource that engages learners and as a social movement that encourages community spirit.

WHAT THIS ALL MEANS

For MOOCs as an education resource

Given the high degree of correlation between sense of empowerment and sense of connection, in order to further enhance users' empowerment through MOOCs, providers may benefit from placing greater emphasis on ensuring that users are interacting with one another on the forums so that they can establish camaraderie and nurture common interests. However, one of the main appeals of MOOCs is the freedom for users to participate in a manner appropriate to them. As such, providers must not force people to engage on forums, but instead promote the benefits of active engagement. In other words, active forum participation should be seen as motivation for a potentially more empowering MOOC experience, not a mandate for any kind of MOOC experience. Part of encouraging greater forum participation means improving forum usability. Comments from teaching staff in response to critiques of the forum interfaces show that instructors have certainly been aware of usability issues.

As well as improving functionality, providers should not underestimate the value of free and accessible online education to the users in this study. Therefore, they should also not underestimate the need to maintain MOOCs as free courseware into the future if they want to retain these kind of users in the long term. Though there has been talk that MOOCs will likely further transition to a fee-based model to account for production costs, it is the freeness of MOOCs that may matter most to their continued prosperity. This is undoubtedly why Udacity has vowed to retain free courseware even with the introduction of its nanodegrees (where fees go towards teaching assistance and accredited qualifications). Maintaining a continued level of freeness allows many users to join and leave courses, which is in itself considered an important quality of MOOCs.

¹¹ This observation is confirmed by Gillani and Eynon (2014) and Rosé et al (2015), both of whom suggest that active users of forums can make up as little as 5% of the total population of a MOOC. However, as Wong et al (2015) point out, the term 'active user' may be used to refer only to those who engage with the forums from the beginning to the end of a course. Wong et al (2015) also suggest that engagement amongst the broader MOOC populace is often a great deal higher in the first few weeks, and that forum participation varies throughout a course's duration. Therefore, percentages relating to 'active' users may not always capture the full extent of forum engagement.

Rather than viewing the ease of departure from courses as a drawback of the MOOC model, it may actually be a benefit to MOOCs in the long term. Attrition could be used as a flag for course creators that a serious rethink in course delivery is required in order to retain more learners in subsequent iterations.

Users in this study further indicate that certificates for participation in, and completion of, free courses must also be retained. So many participants view the free certificates from MOOCs as a necessary incentive for them to learn and persist with a course over time. As such, their presence, however trivial it may seem to some, must remain a priority if providers are to maintain their perceived value across their user base. For some, these certificates are precisely what make MOOCs high-value educational endeavours. They also help perpetuate growth in MOOC participation among the 'MOOCaholics' who insist on 'collecting' as many certificates from as many courses as possible, even if they are already well educated and have pre-existing formal qualifications. Without the opportunity for a certificate, these self-confessed 'MOOC addicts' would likely look elsewhere for their learning fix.

Similarly, claims of poor course delivery by prestigious universities from users in this study suggest that instructors must not rely solely on their institutional brand for success in MOOCs. Users are shown to be very aware of the marketing aspect of MOOC production, with claims that 'they're obviously also a form of advertisement.' Nonetheless, users still place a high level of trust in well-known universities to deliver high-quality courses. When experiences fall short of these great expectations, the reputations of even the most world-renowned institutions can be 'spoiled' if not altogether 'destroyed', according to some survey respondents. As such, course creators must be wary of the potential for brand damage when it comes to developing and running MOOCs. These are not risk-free ventures into the online learning space. On the contrary, a bad experience of one university's MOOC can have long-lasting effects, especially when such an experience is multiplied in the millions.

Providers and commentators alike may also need to redirect the discussion around what 'anywhere, anytime learning' means. As this study has shown, the slogan applies just as much to user convenience as it does to overcoming geographical barriers to access. The likelihood of MOOC providers achieving their 'anywhere, anytime' goal more broadly will greatly increase if the definition likewise expands. For some who are time-poor, it may be about having the ability to learn, autonomously, 'anywhere, anytime'. For others, who are emotionally invested in MOOCs as a now-intrinsic part of their lives, it may be about having the ability to learn and connect with others,

‘everywhere, all the time’. Many users who adhere to the latter view are self-confessed lovers of learning living in relatively prosperous countries. While they may already have qualifications, they want to keep taking MOOCs to keep learning new things because they have the time and means to do so. This is not to say, however, that the presence of users from disadvantaged backgrounds or less developed regions should be discounted, even if they are the minority. That MOOCs are reaching some people living in the world’s poorest regions should be commended, not condemned. Just because most users are well educated and from developed countries does not mean that the relative few in highly disadvantaged regions do not have great relevance for the global potential of MOOCs.

Based on responses to this study’s survey, it could be argued that the success and reach of MOOCs have the potential to expand significantly if MOOCs are promoted beyond being strictly educational endeavours. The data on user motivations for participation show that there are many avenues that MOOCs could be employed for self-help purposes. The recurring statements about MOOCs being used to delay or reduce dementia or stimulate brain function (especially after an illness) suggest that MOOCs may, for instance, be a useful addition to aged care residences and retirement communities. The mental health focus of certain MOOCs may also prove beneficial for rehabilitation or treatment programs around addiction or depression, particularly for those which are centred on patients’ personal health literacy and autonomy of care. Likewise, MOOCs on nutrition, exercise and food preparation could potentially be recommended by dieticians to help educate their clients on how to make better eating and lifestyle choices. Even just among a couple of thousand users who responded to the survey, it is clear that there are definite potential health-based applications of MOOCs that extend well beyond learning for learning’s sake.

Despite their potentially wide applicability, observation of MOOC forums suggests that some people are simply going to be dissuaded from pursuing MOOCs altogether. Regardless of whatever perceived good they can do, or are already doing, for people around the world, for a lot of users, MOOCs, or at least MOOC discussion boards, are going to be viewed as cultivating a ‘negative atmosphere’; one that is tainted by ‘trolls’, ‘tyrants’ and ‘bullies’ unwilling or unable to accommodate ‘minority views’. Such perceived hostility, irrespective of the official claims that such conduct is not tolerated by providers, certainly does not bode well for the public reputation of MOOCs as an education resource that, being free and offered by some of the most well-known universities in the world, people should be eager to use.

For MOOCs as a social movement

Ironically, the 'hostile' behaviour observed in the discussion forums, when done to defend MOOCs against criticism or promote the view of the vocal pro-MOOC majority, may actually have a positive impact on community solidarity and, ultimately, on the longevity of the MOOC movement. In fostering the in-group/out-group distinction between the MOOC proponents and the disgruntled or dispassionate 'others', the sense of collective identity between MOOC movement affiliates is surely enhanced. As has been attested by the likes of Simmel (1955), Ansell (2004) and Weisel and Böhm (2015), the more distance placed between the in-group and the out-group, the stronger the in-group ties. While behaviour on MOOC forums may be considered overly-aggressive to some, such hostilities are generally directed at 'outsiders' of the pro-MOOC collective. This means that the apparent negative characteristics of MOOCs (as an education resource) – particularly in relation to post-voting, blaming and shaming – may actually have a positive influence on the prosperity of MOOCs (as a social movement). As Guibernau (2013:168-169) suggests:

At this stage, a wide gap emerges between the beliefs and perceptions of those committed to the cause and those opposing it: that is, between those belonging to...the movement and identifying with it, and outsiders who may be either indifferent or openly hostile to the movement's aims.... However, rising tension between those in favour and those against the objectives of the movement holds the potential to consolidate and strengthen the former by reinforcing the sense of purpose and conviction of its advocates.

By strengthening the boundaries of in-group membership, alienation of critics and minority voices can help foster MOOC movement identification. It can also bolster ties between users who feel that they think the same as one another, have the same objections to opposing views, and do not tolerate criticism of the focus of their passion, namely MOOCs. Whether or not the unintended consequences of MOOCs are perceived as negative may therefore be in the eye of the beholder. As such, it may be better just to view all impacts beyond providers' explicit goals as simply 'unintended consequences', for better or for worse.

CHAPTER SUMMARY

In following on from the discussion of behaviours and perceptions within the MOOC movement in Chapter 8, this chapter has further emphasised the conceptualisation of the MOOC phenomenon as a social movement through an assessment of the goals of the MOOC providers; the organisations championing the 'MOOC movement' label. The

data from the online survey and forum observations have been reviewed to see how the attitudes, behaviours and experiences of users have compared with the common goals of providers, taken here as the intended consequences of the MOOC movement. Also discussed were what effects the observed unintended consequences may have on the present and future success of MOOCs, as an educational resource and as a social movement.

Findings suggest that the MOOC movement is, in many ways, achieving its intended goals, but not for everyone, and not necessarily in the ways providers anticipated. Moreover, some of the negative aspects of user attitudes and culture have been shown to have potentially positive effects. As such, the unintended consequences of MOOCs are not easily defined as wholly beneficial or detrimental. To conclude the analysis conducted here, a summation of these findings, and all other aspects of the thesis, is provided in the next and final chapter to establish how MOOCs may be expanded, but also why their presence, and the presence of the MOOC movement, may diminish over time.

10. Conclusion

Since gaining international prominence in 2012-13 as an online ‘tsunami’ that could shake universities to their very foundations, and subsequently enduring what some would call an inevitable post-hype lull in the years that followed, the MOOCs offered by Coursera, edX and Udacity remain a hot topic in higher education circles. Controversy still surrounds their potential to transform higher education to become more accessible, as well as their capacity to unsettle the authority of universities and campus-based education. Part of the debate, about online education generally and MOOCs especially, has centred on the power of universities to control the quality and legitimacy of higher education materials. The other issue dominating discussion is the importance of place in the delivery of higher education. While the former has been a matter of concern since the advent of ‘diploma mills’ alongside the rise of correspondence education in the nineteenth century, the latter presents a slightly distorted view of the history of universities and ideas of higher education.

The original medieval universities that began in the late eleventh and early twelfth centuries existed primarily as international scholarly communities that could relocate depending on available resources and requirements. Only in the fifteenth century did dedicated lodgings, halls and libraries begin to emerge. The oldest universities were, therefore, far from the place-based institutions that the pro-traditional, anti-online higher education campaigners imply; they were highly mobile. Therefore, despite being one of the most controversial issues surrounding MOOCs, talk of the disembedding of higher education has existed for hundreds of years. The same could be said of fears of the disruptive potential of new technologies; first the textbook, then the radio and the television, and now the internet.

While it may be that lot of the anxieties about MOOCs since their emergence are not entirely novel, and that the media hype that surrounded them during 2013 has

started to die down, MOOCs nonetheless continue to occupy space in daily higher education news websites and university outreach strategies. So, too, do comments about the 'MOOC movement'. In presenting an examination of the construction, culture and consequences of the MOOC movement, conceptually this thesis can be divided into two components. The first component addresses how the MOOC phenomenon can be, and is being, conceived as a social movement. It is also about the extent to which users actually believe in and identify with such a concept. The second component examines the common goals of the MOOC movement as expressed in the mission statements of providers. It is also about how well user attitudes and experiences of MOOCs align with these goals. Fundamentally, the first component of this thesis addresses the perceptions, attitudes and behaviours relating to movement affiliation, whereas the second component addresses the movement's intended and unintended consequences.

Movement affiliation was initially assessed from the discussions generated through two focus groups of selected MOOC users held at the ANU campus in August 2013. The transcripts from these focus groups then informed the construction of an online survey questionnaire which was posted to 172 courses across Coursera, edX and Udacity between June and October 2014. This online questionnaire was specifically designed to address the common goals of MOOC providers, taken here as the MOOC movement's intended consequences. The unintended consequences of the MOOC movement were chiefly assessed through participant observation of official forums, conducted concurrently with the survey. Key findings about MOOC culture were categorised in accordance with Wuthnow's (1987) ideas about culture generally. Users' attitudes and beliefs garnered from the focus groups and online survey illustrated MOOC culture from the *subjective* perspective, while the symbolic interaction between users on official course discussion forums highlighted the *dramaturgical* dimension of MOOC culture. A review of the social context of MOOCs, namely the complexity in meaning and attachment associated with accessible globalised communities, outlined the *structural* aspect of MOOC culture. Together, these three dimensions established how both the construction and culture of the MOOC movement have been shaped by the way providers have framed and operated MOOCs, and also by the perceptions and behaviours of the MOOC users themselves. With Taylor and Whittier's (1995) analytical schema as an overarching guide, these cultural dimensions have been assessed in terms of the discourse underpinning interpretive frameworks, emergent norms, collective identity and ritual to emerge out of the reflection of, and behaviours in, various MOOCs.

CONSTRUCTION AND CULTURE OF THE MOOC MOVEMENT

Analysis of the online survey data has demonstrated that many users believe in and identify with the notion of the MOOC movement. Further examination of users at the individual (micro) level suggests that affiliation is shaped by the way users interpret MOOCs more broadly. Whereas MOOC movement identifiers regard MOOCs as an online learning community, non-identifiers see them as an online learning tool. These different interpretive frameworks are reflected in their ‘identity talk’, the way that they express themselves, and their experience of MOOCs, in relation to others. Those who discuss deliberately solitary learning experiences, and a limited desire or ability to socialise, have a very instrumental approach to MOOCs. Those who discuss the joys of shared learning experiences, and feelings of becoming part of a growing community of like-minded lovers of learning, have a more emotional approach to MOOCs. The shared themes emerging from these individual narratives sees users transposed into four different categories: (1) those who do not believe in the MOOC movement at all (the ‘unsympathetics’); (2) those who believe in the movement but do not identify as part of it (the ‘neutrals’); (3) those who believe in and identify with the movement but are not trying to recruit others (the ‘sympathetics’); and (4) those who believe in and affiliate themselves with the movement and actively recruit and engage with their peers (the ‘active participants’). Where individual users sit on the spectrum depends on whether they choose to interact with others, whether they believe in the concept of MOOCs as a movement, and whether they identify themselves as part of it.

At the interpersonal (meso) level, these different user types interact with one another in official course discussion forums to establish and reinforce social boundaries; boundaries that distinguish those deemed to be part of the MOOC collective from those deemed to be ‘outsiders’. The ritual of post-voting proves to be very powerful at promoting this inclusion and exclusion of users, with support shown for those who align with the pro-MOOC perspective and condemnation of those who deviate from it. Hostility towards critics of MOOCs further reinforces this divide. In establishing such a boundary, the MOOC user base has also proved very adept at constructing its own behavioural norms when the mechanisms of online communication have been deemed lacking. The most striking of these has been the urging of anonymous users to conform to the sentiments of the vocal majority, at least in part, by adopting pseudonyms when posting in discussion forums. Some may argue that the issues raised about anonymity in MOOCs point to the problems of online communication generally, and online education

in particular; that without the social cues and identifiability afforded by physical co-presence, quests for promoting effective interaction and community building are doomed to fail. This thesis argues, however, that, anonymous or not, the ritualised processes embedded in the MOOC platforms, particularly around post-voting, actually make intentions of communication and social allegiances much more explicit, and thus potentially less likely to be misinterpreted, than those in face-to-face exchanges.

At the broader social (macro) level, disparities in social allegiance and broader MOOC movement affiliation can be attributed to the inclusive spirit with which MOOCs have been founded. The general sentiment is that the more inclusive a community is, the weaker the emotional attachment to it. The fact that users have differed in their degree of affiliation with the MOOC movement is therefore not altogether surprising. Inclusivity inevitably begets complexity, and the complexity of contemporary global social movements means that people will always have different motivations for participating in a movement. They will also have different interpretations for what constitutes a movement, as well as membership of that movement. For social movement theorists who welcome this characteristic of contemporary society, the differences in the understanding of, and affiliation with, the MOOC movement are to be embraced, not dismissed. From this perspective, variances in interpretation and association do not undermine the study of such diverse phenomena as social movements; they present a blossoming area of scholarship. Indeed, the similarities and differences in individual perceptions and attitudes and interpersonal behaviours are what have informed the entire analysis of the construction and culture of the MOOC movement in this thesis.

CONSEQUENCES OF THE MOOC MOVEMENT

The second analytical component of this thesis operates in the spirit of Boudon (1982) and Giugni (1998; 1999; 2008), uncovering both the intended goals of the movement and, in turn, any unintended consequences observed beyond these explicit objectives. Empirical findings suggest that the MOOC movement is, in many ways, living up to its intended goals, though perhaps in somewhat unintended ways. MOOCs do present an opportunity to learn 'anywhere, anytime'. But, as responses to the survey suggest, this mantra may be just as much about an opportunity for choice and convenience for the already well-educated as it is about overcoming barriers to access for the geographically-isolated and educationally-deprived. Indeed, for the MOOC enthusiasts, emphasis may be more on learning 'everywhere, all the time' than on learning 'anywhere, anytime'.

The free availability of MOOCs is also shown to provide great security to many users, allowing them the freedom to sample courses and pursue only the ones they actually like. The freeness of MOOCs also means that users can accumulate a wide range of certificates for their efforts. These markers of achievement have come to hold great value in the eyes of many users, despite lacking, for the most part, any association with formal academic credit or qualifications. This attribution of high value to unaccredited educational offerings contrasts with perceptions of the leaders of previous free online courseware initiatives, who assumed that people would be unlikely to pursue a higher education course if no formal credit were offered. Even without credit, many people clearly enjoy the freeness of MOOCs, and cherish their associated informal grades and certificates dearly.

Still, the free factor does not discount the prestige factor. Users still have high expectations of MOOCs created by the so-called ‘world’s best’ in their field. Many MOOC creators appear to be living up to this title, with the majority of users surveyed in this study considering the delivery of MOOCs to be excellent. It is when MOOCs do not live up to such lofty claims of superiority that elite universities can expect reputational damage in return. This is where lesser-known teaching-oriented universities have the most to gain. Through MOOCs, such universities have a chance to showcase their wares to a global audience of prospective students who may have previously been unaware of their existence. If their MOOCs are poorly received, they will be no worse off than if they had remained unknown all along. It is the well-known, research-driven universities that have the most to lose if they do not get MOOCs right.

Evidently, the MOOC movement presents an interesting dilemma for universities, whether they are already participating in MOOC delivery or reviewing the prospect of doing so. MOOCs cannot be kept separate from on-campus offerings, as MIT’s previous OpenCourseWare initiative had proposed. OpenCourseWare began in 2001 with the explicit intention of withholding credit for apparent mastery of online content, as it was thought that providing credit would diminish the value of the university’s on-campus programs. From the attitudes and experiences of MOOC users analysed in this thesis, it is clear that MOOCs do impact the prospect of on-campus offerings regardless of whether credit is available or not. This is because, in many cases, it is not the credit per se that users are after, but the quality of the learning experience. And according to some users, this is not always something they are getting from MOOCs, even from world-renowned institutions.

This is not to say, though, that the MOOC movement is not still having a positive impact in other ways. For those anxious about failing a fee-based course, with formal grades and pressure to perform, MOOCs can be psychologically empowering. They can give users confidence to try to learn new things without the social and economic costs of failure. They can also allow users to be educationally empowered, to have control over their learning pursuits regardless of what their level of prior educational attainment may be. For lonely users, MOOCs can encourage social empowerment by providing a means of contact with the outside world, sometimes with people living in far-away places. For users who fear persecution or ridicule, MOOCs can provide a platform for speaking out on various issues in a manner not possible if learning was conducted face to face or in an online mode that made identifiable information mandatory in forum discussions. More holistically, whether people feel empowered by MOOCs is highly correlated with how connected they feel to other users. To foster users' overall sense of empowerment therefore means encouraging them to engage in course discussion forums and support each other as much as possible. Though the behaviour in some forums suggests that the inclusivity of MOOCs means that some users will inevitably clash, this does not mean that the MOOC movement will certainly crumble. It is precisely because of the strong divide between MOOC proponents and critics that the MOOC movement may strengthen over time.

IMPLICATIONS AND RECOMMENDATIONS

The findings outlined in this thesis highlight various areas for consideration by prospective MOOC users, providers, creators, and higher education policymakers more broadly. Though the ability to connect and empower users have been identified as two of the common goals of providers, the two measures have been shown to be highly correlated among MOOC users surveyed in this study. Efforts to increase levels of user empowerment would therefore, in theory, require an increase in forum engagement. This is what would enhance the likelihood of previously isolated MOOC users establishing social connections with their peers. However, freedom and control over one's education, including the option to pursue an autonomous, solitary learning mission, is a major reason why many users participate in MOOCs in the first place. As such, forcing all users to engage in forum discussions is unlikely to universally increase overall feelings of empowerment, let alone enhance a sense of connection. It is likely, therefore, that only

those who willingly engage with their peers, and who view MOOCs as a learning community, as opposed to a learning tool, will ever feel really empowered by MOOCs.

Though there has been scepticism about the longevity of the MOOC movement without the prospect of widespread MOOC accreditation, there are many users who already find a great deal of motivation to persist with unaccredited MOOCs as it is. Some even regard the informal grades, and certificates associated with them, as an ‘addiction’. Despite claims that they ‘don’t really mean anything’ outside of the world of MOOCs, these grades and certificates have come to hold great intrinsic value for some users. They have become a symbol of the intellectual growth to come from learning for learning’s sake. Outrage at the threat of dissolving such certificates, as well as the prospect of receiving a poor grade, also shows that the informal certificates and grades have some extrinsic value, too. As such, lack of accreditation may not necessarily be the ‘nail in the coffin’ as far as the future of the MOOC movement goes.

A more pressing issue for the longevity of the movement is the vulnerability of the brand and reputation of universities who actually create and deliver MOOCs. Users in this study expressed a high level of trust in prestigious providers, and in elite universities in particular, to deliver courses of the highest standard. However, they have also not been shy about expressing their dissatisfaction when experiences with courses from world-renowned instructors leave much to be desired. Because MOOCs are open, they are also very public. And because so many universities are currently involved in MOOCs, they are in many ways, publicly competing for attention, not to mention offering an easy means for cross-institutional comparison. Feedback from focus group participants and online survey respondents indicates that brand resonance alone will not ensure that comparisons end in favour of the better-known institutions. Universities who already have great success in the online education space should therefore consider signing up to deliver MOOCs on established platforms alongside more renowned institutions. Rather than dwarfing their international profile, it could actually boost it, should their course delivery be perceived more positively when viewed in relation to the delivery of others.

In rethinking the potential impact on organisational brand, MOOC creators and providers alike must also rethink the meaning of ‘anywhere, anytime’ learning when it comes to MOOCs, and how success in this area should be measured. Most users in this study have not been participating in MOOCs because geographic or time constraints limit their participation in higher education by other means. As such, providers may wish to refocus this message to place equal emphasis on user convenience. In addition,

providers may wish to explore the applications of MOOCs outside the realm of education, with self-help through MOOCs – especially in the sense of physical and mental health – shown to be a powerful driver for participation. For instance, some users surveyed in this study said that they chose to undertake MOOCs because they wanted to exercise their brain; to challenge it and keep it active. With this in mind, retirement villages and nursing homes could find value in adopting MOOCs into their operations. Rather than viewing MOOCs as, say, a means to teach aged carers about how to recognise and manage dementia, there could be a MOOC developed specifically for people who are experiencing or anxious about developing the early signs of brain deterioration. Given the cost associated with aged care generally, having a freely available resource of this nature could prove invaluable. Similar benefits may be found in the adoption of MOOCs by end-users of nutrition and dietary education programs, as well as those seeking additional information about the nature and management of anxiety, depression or substance abuse.

The prospect of increasing the scope of participation, however, requires an understanding of the negative consequences that the current MOOC interfaces can generate. Observation of MOOC discussion forums suggests that some people are inevitably going to be reluctant to pursue MOOCs altogether because of perceptions of hostility between users. A lot of this hostility stems from post-voting. MOOC providers may therefore wish to revisit the use of post-voting mechanisms, as well as the structure of forums generally, to establish the best means to facilitate effective and constructive dialogue. That being said, doing away with the post-voting mechanism – while potentially alleviating the alienation of minority voices – may also have a detrimental effect. It could lessen the social bond established between the vocal majority, who use it as the basis of their rituals of inclusion and exclusion, that is, for communicating who are the insiders of the MOOC movement and, in turn, who are outsiders.

Universities and higher education policymakers alike must take these issues surrounding forum interaction into account before claiming MOOCs as the panacea for access and funding woes. As this study has shown, MOOCs do certainly have their benefits for some users, and they can cater for different online education needs, whether solitary or social. However, because of this inclusive sentiment, divisions are likely to remain. The main division is between those who perceive MOOCs as an online learning community and, by extension, as a social movement with champions to its cause, and those who perceive MOOCs simply as an online learning tool for individual gain, and thus, not a movement at all. Because this divide can be alienating at times, whatever the

intentions of the MOOC providers, not everyone will be willing or welcome to claim membership in the MOOC movement.

LIMITATIONS

As the summary above illustrates, this thesis has unearthed some interesting findings in relation to how the MOOC phenomenon can be, and is being, conceived as a social movement. It has also shown how, as a movement, it has been faring with regards to explicit organisational objectives. Nevertheless, there are some important issues that need to be taken into account in terms of the methods used to uncover these findings.

The first issue pertains to the focus groups, and the fact that there were only two of them, each comprising only a few people. This meant that no point of saturation in the topics or directions of discussion was ever reached, and that the results observed could in no way be deemed generalisable to the broader population of MOOC users. However, the focus groups were never intended to act as the solitary source of information on the attitudes and experiences of all MOOC users. They were, instead, designed to uncover new observations about MOOCs that had not been gleaned from prior desktop research. They were also intended to establish the scope and direction of the online survey questionnaire, which was expected to be the main source of data for this study. From this point of view, all of the issues raised in the focus groups have been valuable.

Some of the criticisms directed at the focus groups may also be directed towards the resulting survey questionnaire in that there were just over two thousand survey respondents. This number pales in comparison to the millions of users who have enrolled in MOOCs over the years. Although users were offered little incentive to participate in the survey other than to aid a PhD candidate to conduct research about MOOCs, the lack of participants may be attributed, in large part, to low levels of forum activity. Users had themselves noted the ‘ghost-like’ nature of some course forums, with the number of discussion threads, views and comments all surprisingly few across the three MOOC providers. Prior to commencing this study, one of the biggest concerns was that, because of the tens, if not hundreds, of thousands of enrollees in each course at any given time, posts about the survey would get lost very quickly in a torrent of other posts, and user interaction would be difficult to follow. Evidently, this was not the case. There was no torrent of user comments to get lost in, as a lot of people did not bother to post anything at all. Many, it seems, were not even reading the posts of others, with view counts as low as zero in some cases. While this made the data collection process much

easier to manage, it also meant that the pool of potential data sources was much more limited than first anticipated.

A few of the users who saw the invitation to participate in the survey raised one other issue. They suggested that, because survey participation was voluntary rather than mandatory, the resulting data would be biased towards the MOOC-lovers, the MOOC-haters, and the 'bored retirees'. There were certainly some avid MOOC users who responded to the survey, but there were also new and fairly non-committed respondents as well. Moreover, respondents varied considerably in age, ranging from 13 years right up to 82 years (see p. 103). Respondents also reported 112 different countries of residence (see p. 105). This information is indicative of the fact that not only were the MOOCs observed made up of a diverse range of people, so was the survey. Whatever the final composition of respondents, the key consideration for the survey is that, like the focus groups, the information obtained was never intended to represent the entire MOOC populace. It was to be a snapshot of particular users, their experiences and their points of view, at a particular point in time. Fundamental to this examination was the highlighting of differences in interpretation between those who claimed membership of the MOOC movement and those who opposed any such affiliation.

It is important to note, however, that after the survey period closed, it became apparent that not all of the survey questions could be used in analysis. Comments on the question about school education, specifically about how no Year 13 option was provided and so respondents either could not respond or had to choose Year 12 instead, meant that it could not be analysed as it was not universally applicable.¹² Instead, the more universally applicable qualification question, for which there was no apparent issue in the categories provided, was used as the sole measure for educational attainment. Similar to the question on schooling, the question on attitudes to university education after experiencing MOOCs could not be used as respondents indicated that the categories provided, though intended to be provocative, were not exhaustive and that they were double-barrelled. Also unable to be used were a few other questions included at the end of the questionnaire that had been drawn from the World Values Survey. These pertained to trust in public institutions as well as general information on access and attitudes to science and technology, tradition, creativity and autonomy, public recognition, and social responsibility. Prior to conducting the survey, the idea was that

¹² Since there is no simple international categorisation for school-based education, with international survey questionnaires instead tailored to local audiences, universally applicable questions for education are inherently difficult to create.

these questions would be used to show how the views of MOOC users compared with other people who resided in the same countries as these users, to identify what (if anything) made MOOC users unique. Given that the final number of respondents to the online survey totalled 2,203, and just 2,191 of these were deemed suitable for analysis, it was not feasible to conduct any large-scale comparisons. The survey population was simply too small to divide by individual countries.

While analysis of the survey data was made possible from various other aspects, it should also be noted that the link between identification with the MOOC movement in the survey and displays of staunchly pro-MOOC behaviour in course forums has been a matter of interpretation. The in-group/out-group boundaries on the forums were not explicitly expressed in relation to any ‘movement’ as such. This conceptual link has been drawn from the reasons expressed in the survey as to why people affiliated themselves with the MOOC movement – they believed in the idea of MOOCs, they felt part of a MOOC community, and they promoted MOOCs to others – and observations of behaviour on the forums that reflected these traits. In the case of lack of affiliation, the link was made with behaviour that indicated the opposing sentiments. What’s more, just as the survey findings reflect only those who actually provided responses to the survey questionnaire, observations of forum behaviour relate only to those who were actually participating in the forums. As such, the conclusions drawn about forum interaction must be limited to those who were actually observed as part of this study; they should not be taken as automatically generalisable to the entire MOOC user base.

While acknowledging these limitations, it must be also be recognised that research into MOOCs is a very new area of scholarship, as MOOCs are only new to the world themselves. The empirical investigation underpinning this thesis was conducted at a time when there was still a great deal of hype and attention directed at this relatively ‘unknown’ phenomenon that had many commentators in a panic about its potential impact on the future of brick-and-mortar universities and their staff. Because there was so much yet to be uncovered about MOOCs, and because MOOCs have constituted a constantly evolving research subject, the entire project has necessitated a certain amount of improvisation and innovation.

PROJECT REFLECTION AND CLOSING REMARKS

In retrospect, the online survey questionnaire could have been made shorter by excluding the World Values Survey variables. This could have potentially boosted

participant numbers as respondent avoidance or fatigue could have been lessened. Similarly, more piloting on the schooling question categories could have been done, although it is not entirely clear how such testing could have helped achieve complete universality in terms of the questions posed.

These potential improvements aside, all in all, the project proceeded according to plan, and the results obtained have been very pleasing from a researcher-in-training's perspective. Although the collection and analysis of data proved more difficult and time-consuming than originally anticipated – mainly in terms of securing participants for the survey – there has still been a considerable number of respondents from which information could be obtained about the attitudes and experiences of MOOC users. That so many survey respondents strongly identified with the MOOC movement was somewhat unexpected. The type of language that identifiers used to explain their reasoning behind movement affiliation was also very interesting. The responses given to very broad and open-ended survey questions showed that respondents were not just 'opting in' to a category of movement membership; they were expressing, in their own words, what MOOCs meant to their lives and how they felt part of something bigger than themselves. They were conveying a message about how they wanted to share their experience with others, to convince them to join in and see all the benefits that MOOCs have to offer, for individuals and for society at large. That there were survey respondents who did not claim any movement affiliation was also an intriguing discovery. However, it is what the sceptical observer would expect to find: individuals using a novel online learning tool to pursue personal education goals. Overall, what is most striking is how much all of the users studied have differed in their experience and conception of MOOCs, but also how the same sentiments have been shared by so many to produce distinct patterns of interpretation and behaviour.

The identification and analysis of the different constructions of the MOOC movement stands as one of the chief sociological contributions of this thesis. The user perspective on what actually constitutes the MOOC movement, what affiliation with the movement means, and how it presents itself in user narrative and behaviour, though a hitherto taken-for-granted aspect of the MOOC phenomenon, has now been made explicit and so can be better understood. Precisely how user interpretations and experiences of MOOCs have compared with the official goals of the MOOC movement highlights another key contribution of this thesis: its assessment of the movement's official objectives from the perspective of providers, and how certain unintended behaviours and attitudes may enhance or undermine these intended goals. Together,

these two analytical components underpin how this thesis casts MOOCs, and indeed the MOOC movement, in a new light. As an empirical sociological study of a global phenomenon predominantly assessed in educational terms, this thesis' review of meaning-making, culture and consequences provides illumination of the MOOC movement in ways not previously explored.

As acknowledged in the introductory chapter of this thesis, this study is not a conventional analysis of a social movement. Far from examining the processes within an established movement, whose existence is beyond question, the very prospect that the MOOC movement even exists in the eyes of all MOOC users has been at the heart of this investigation from the beginning. From the data and conclusions uncovered here, it is hoped that both education and social movement theorists can gain a better understanding of how the MOOC movement is conceived, how proponents are fostering a pro-MOOC culture, and what factors may aid or impede the success of MOOCs, and the MOOC movement, in the long term. While educationists may be better placed to identify patterns and justifications for certain behaviours in MOOCs, social movement theorists may gain a new appreciation about the strength of individual perspectives for establishing the existence of a movement 'from the ground-up'. For this study, this ground-up approach has proved especially important considering the diverse nature of the MOOC user base and the claims made against the very existence of the MOOC movement, let alone any emotional attachment to it. The fact that there are users who do believe in and identify as being part of the MOOC movement shows that people see and experience the world differently. Identifiers of the MOOC movement see MOOCs as a way to instigate social change, to transform the delivery and accessibility of higher education for the greater good. Many also see it their mission to encourage others to get involved, to spread awareness and defend MOOCs against their opponents.

What this thesis argues is that for any social constructionist analysis of social movements, it is these kinds of perspectives that need to be heard and examined. Such a 'ground up' approach becomes even more imperative when studying any emerging social phenomenon in terms of why it does or does not constitute a social movement. For online phenomena, like MOOCs, where there are vast and ever-changing numbers and types of people involved, who may be interacting with one another to varying degrees across considerable space and time, what constitutes a united 'collective' is not so easily defined by outsiders alone. There needs to be an underlying thread of the 'voices from within' to be able to understand the heart of any social movement, whether inhabiting the online world or the physical one.

Though still a 'moving target', it is clear from the preceding pages that there is certainly more to MOOCs, and the prospect of the MOOC movement, than online media headlines would suggest. Now that the research has been completed, and key findings have emerged, this study can be regarded as a blueprint for a new kind of sociological research about a new kind of phenomenon in higher education, and the world today: the MOOC movement. Researchers of MOOCs may wish to build on the work outlined in this thesis to assess the evolution of the construction, culture and consequences of the MOOC movement over time. Alternatively, researchers may wish to give primary emphasis to the MOOC providers, rather than the users, to present an analysis of the MOOC movement from a more organisational perspective, drawing on issues such as structure, power and resources. More broadly, researchers of other online social phenomena, operating at a pace and scale comparable to MOOCs, may wish to pursue a 'ground-up', multi-method strategy, similar to the one presented here, to establish whether these phenomena constitute social movements, for whom and for what reasons.

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Appendices

I. RESEARCH PARTICIPANT RECRUITMENT

Focus group recruitment poster

edX Coursera Udacity



Have you participated in a course, otherwise known as a Massive Open Online Course (MOOC), from one of the abovementioned providers?



If yes, then you are invited to join a small group of other MOOC users to share your opinions and experiences. Feedback from the group will be used to develop a survey of international MOOC participants as part of a PhD project here at the ANU.



Baked goods will be provided (incl. gluten free option)

If you're interested in participating in a MOOC focus group, contact Emily at emily.longstaff@anu.edu.au. Please note that the ethical aspects of this research have been approved by the ANU Human Research Ethics Committee.

MOOC focus group contact:
emily.longstaff@anu.edu.au

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Focus group research information statement

Project title

Massive Open Online Courses: A study of participants

Period of Investigation

January 2013 - January 2018

Investigator

Emily Longstaff, College of Arts and Social Sciences, Australian National University. This research is being conducted toward a Doctor of Philosophy degree, and is conducted independently by the researcher.

Supervisor

Prof. Larry Saha, College of Arts and Social Sciences, Australian National University.

Research topic

This research project examines the attitudes, behaviours and first-hand experiences of people who have participated or are currently participating in a Massive Open Online Course (MOOC). Attitudes and behaviours of these MOOC users will be compared with the stated aims of MOOC providers; the large-scale higher education portals like edX, Coursera and Udacity that are leading the way in the so-called 'MOOC movement'.

Invitation to participate

You are invited to participate in a focus group of about one hour in length on campus at the Australian National University. Participation in this research is voluntary, so you are free to participate or not.

If you agree to participate:

- You may leave the discussion group at any time, but your contribution to the discussion until that point will remain on the record;
- You will be asked about your opinions and experiences of Massive Open Online Courses (MOOCs) and their relation to higher education;
- You will be recorded on audio and/or video tape for the purposes of documenting discussion;
- You may choose not to answer any particular question if you would prefer not to;
- You may ask questions about the study at any time; and
- You may know other people in the group, since participants are drawn from the student body.

Use of the data

Information gathered during this research will be analysed by the researcher and will be used to help develop a survey for online distribution to MOOC participants from around the world. Some information from the discussion may also be presented in summary form in a doctoral thesis. In addition, the data may be used in other publications and reports to inform those interested in the findings. No individual participant will be identified in any publication. After analysis, the data will be kept securely for 5 years after publication.

Contact details:

If you have any questions about the research you can contact me at:

Emily Longstaff, College of Arts and Social Sciences, The Australian National University

Email: Emily.Longstaff@anu.edu.au

Telephone: 6125 6388

If you have any queries that I cannot answer, you may contact the research supervisor at:

Prof. Larry Saha, College of Arts and Social Sciences, The Australian National University

Email: Lawrence.Saha@anu.edu.au

Telephone: 6125 2132

The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee. If you have any questions regarding the research that the supervisor cannot answer, or concerns regarding the conduct of this research, you may also contact the Ethics Manager:

The ANU Human Research Ethics Committee, The Australian National University

Email: Human.Ethics.Officer@anu.edu.au

Telephone: 6125 3427

Focus group research consent form**Massive Open Online Courses: A study of participants**

I have read and understood the Research Information Statement describing the above-named project. I agree to participate as focus group participant in the project. I consent to having my conversation within the group recorded, as well as the publication of the results of the project on the understanding that I am not individually identified in any report of the project, and that confidentiality is preserved.

I understand that I may withdraw from the project at any time, but that any contributions that I have made to the group discussion up until that point will remain on the record.

I also understand that since discussions in the focus group will be shared with other members of the group, I am advised to refrain from disclosing information that is confidential or from making statements that are defamatory of any person.

Name (please print):

Signature:

Date:

Email address:

APOLLO layout for the opening page of the online survey questionnaire

The introductory statement appeared on the first screen that participants saw prior to commencing the survey. It was limited to 1024 characters, including spaces.

Once the survey became live, the button at the bottom of the page appeared, asking the participant to 'begin'. This button has been taken as users' 'consent' to participate in the survey study, as described in the introductory statement.

The privacy statement appeared as a box on the introductory page. A link to this statement was also included on each page of the survey.

The screenshot shows the layout of the APOLLO survey opening page. At the top, there is a navigation bar with links for 'EXPLORE ANU' and 'A-Z INDEX'. Below this is a search bar labeled 'Search ANU...' and links for 'WEB', 'CONTACTS', 'MAP', and 'GO'. The main header features the Australian National University logo on the left, the 'APOLLO' title in the center, and 'CASS School of Sociology - Emily Longstaff' on the right. Below the header, there is a section for the 'Survey title' and an 'Introductory statement' area. A 'Privacy Statement' box is displayed, containing a 'Begin >>' button. At the bottom, there is a footer with contact information, a 'Page Contact' link, and a navigation menu with links for 'Contact ANU information', 'Campus Map', 'Copyright', 'Disclaimer', 'Privacy', and 'Freedom of Information'. The footer also includes the university's contact details, CRICOS Provider number, ABN, and logos for 'GROUP OF EIGHT MEMBER' and 'IARU'.

ANU logo (appeared on every page)

Survey title (appeared on every page)

Introductory statement (limited to 1024 characters, including spaces)

Privacy statement (appeared in full on introductory page and as a link on every survey page)

'Begin' button (taken as 'consent' button for the purpose of this survey)

Survey contact email (appeared on every page)

Statements on the opening page of the online survey questionnaire

Survey title:

Attitudes and experiences of Massive Open Online Course participants

Introductory statement:

This survey is about your opinions and experiences of Massive Open Online Courses (MOOCs), and of higher education and technology in general. As someone who has experienced MOOCs, you are invited to participate.

Responses from this survey will be analysed in relation to the goals of MOOC providers.

The survey is voluntary and should take approximately 10-15 minutes to complete. If you agree to participate:

- You may leave the survey at any time, but your responses to that point will remain on record;
- You may choose not to answer any particular question if you prefer not to;
- Your survey responses will be gathered and stored electronically on ANU servers.

By clicking the button below, you agree to have read and understood the above information and to participate in the survey.

It also means that you consent to your responses being used for documentation and analysis on the understanding that you will not be individually identified, and that confidentiality is preserved as far as the law allows.

Privacy statement:

Information gathered during this research will be analysed by the researcher and will be presented in summary form in a doctoral thesis. In addition, the data may be used in other publications and reports to inform those interested in the findings. No individual participant will be identified in the thesis or in any publication. Following analysis, the data will be kept securely for 5 years after publication.

The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee.

If you have any questions about the research you can contact the researcher at:

Email: Emily.Longstaff@anu.edu.au **Telephone:** +61 (0)2 6125 6388.

If you have any queries that the researcher cannot answer, you may contact the research supervisor at:

Email: Lawrence.Saha@anu.edu.au **Telephone:** +61 (0)2 6125 2132.

If you have any questions regarding the research that the supervisor cannot answer, or concerns regarding the conduct of this research, you may also contact the Ethics Manager:

Email: Human.Ethics.Officer@anu.edu.au **Telephone:** +61 (0)2 6125 3427.

Survey contact email: emily.longstaff@anu.edu.au

Email to MOOC instructors about the online survey

Dear [title and name of instructor],

My name is Emily and I am conducting a survey of MOOC users as part of my doctoral research at the Australian National University. As the instructor for [course name], I would really appreciate your help in sharing the survey with course participants.

The web survey is about learners' attitudes and experiences of MOOCs and can be accessed here <https://apollo.anu.edu.au/apollo/default.asp?pid=8079>. Respondents suggest that it should take 10- 30 minutes to complete.

With your permission, I would like to post an invitation to the survey on the General Discussion board of [course name]. Alternatively, you could email course participants about the survey as part of regular course announcements.

Other course instructors have given me permission to share the survey and some have even shared it with colleagues to create greater awareness among a wider pool of learners who have participated in MOOCs. Any enthusiasm for the project on your behalf greatly appreciated. Just know that you will be enabling more people to participate in a research project about which many other [provider name] users have already shown great interest and an eagerness to contribute.

Thank you for your time and consideration.

Kind regards,

Emily

Emily Longstaff
School of Sociology
College of Arts and Social Sciences
The Australian National University
emily.longstaff@anu.edu.au

II. MOOCS INCLUDED IN THIS STUDY

Key code: * = forums observed # = invitation to survey posted

Coursera					
Course name	Provider	Country	Start date	Duration	Key
A Brief History of Humankind	Hebrew University of Jerusalem	Israel	10-Aug-14	20 weeks	*#
Algorithms, Part 1	Princeton University	USA	13-Jun-14	6 weeks	*#
Algorithms: Design and Analysis, Part 2	Stanford University	USA	30-Jun-14	6 weeks	*#
An Introduction to Functional Analysis	École Centrale Paris	France	12-Sep-14	8 weeks	*
An Introduction to Global Health	University of Copenhagen	Denmark	02-Jun-14	6 weeks	*#
Analysis of Algorithms	Princeton University	USA	05-Sep-14	6 weeks	*#
Animal Behaviour	University of Melbourne	Australia	02-Jun-14	8 weeks	*#
Animal Behaviour and Welfare	University of Edinburgh	UK	01-Jul-14	5 weeks	*
Automata	Stanford University	USA	01-Sep-14	6 weeks	*
Bioelectricity: A quantitative Approach	Duke University	USA	25-Aug-14	8 weeks	*
Bioinformatics: Life Sciences on Your Computer	Johns Hopkins University	USA	09-Jun-14	8 weeks	*#
Calculus: Single Variable	University of Pennsylvania	USA	23-May-14	14 weeks	*#
Chemicals and Health	Johns Hopkins University	USA	15-Sep-14	6 weeks	*#
Classics of Chinese Humanities: Guided Readings	Chinese University of Hong Kong	Hong Kong	01-Sep-14	8 weeks	*#
Climate Change in Four Dimensions	University of California, San Diego	USA	01-Jul-14	10 weeks	*
Climate Change	University of Melbourne	Australia	11-Aug-14	9 weeks	*#
Clinical Terminology for International & U.S. Students	University of Pittsburgh	USA	14-Jul-14	6 weeks	*#
Configuring the World: A Critical Political Economy Approach	Universiteit Leiden	Netherlands	01-Sep-14	8 weeks	*#
Creative Problem Solving	University of Minnesota	USA	03-Sep-14	7 weeks	*#
Creative Programming for Digital Media & Mobile Apps	University of London	UK	01-Jun-14	6 weeks	*#
Creativity, Innovation, and Change	Pennsylvania State University	USA	14-Jul-14	6 weeks	*
Cryptography I	Stanford University	USA	08-Sep-14	6 weeks	*#
Designing cities	University of Pennsylvania	USA	14-Sep-14	10 weeks	*
Diabetes - a global challenge	University of Copenhagen	Denmark	02-Sep-14	5 weeks	*#
Emergence of Life	University of Illinois	USA	14-Jul-14	8 weeks	*#
English Common Law: Structure and Principles	University of London	UK	23-Jun-14	6 weeks	*#
Ethical and Social Challenges of Genomic and Precision Medicine	University of California, San Francisco	USA	15-Sep-14	6 weeks	*
Exercise Physiology: Understanding the Athlete Within	University of Melbourne	Australia	21-Jul-14	6 weeks	*
Foundations of Business Strategy	University of Virginia	USA	16-Jun-14	7 weeks	*#
From the Big Bang to Dark Energy	University of Tokyo	Japan	05-Aug-14	4 weeks	*#
Fundamentals of Music Theory	University of Edinburgh	UK	14-Jul-14	5 weeks	*#
Generating the Wealth of Nations	University of Melbourne	Australia	01-Sep-14	10 weeks	*
Genes and the Human Condition	University of Maryland	USA	23-Jun-14	6 weeks	*#
Globalization and You	University of Washington	USA	24-Jun-14	10 weeks	*#
Greek and Roman Mythology	University of Pennsylvania	USA	8-Jun-14	10 weeks	*#
How Things Work I	University of Virginia	USA	11-Aug-14	6 weeks	*
How to Change the World	Wesleyan University	USA	21-Jun-14	6 weeks	*#
Information Security and Risk Management in Context	University of Washington	USA	26-Aug-14	10 weeks	*#
Interactive Computer Graphics	University of Tokyo	Japan	05-Aug-14	7 weeks	*#
Introduction to Communication Science	University of Amsterdam	Netherlands	02-Jul-14	7 weeks	*#
Introduction to Digital Sound Design	Emory University	USA	21-Jul-14	6 weeks	*#
Introduction to Engineering Mechanics	Georgia Institute of Technology	USA	08-Sep-14	5 weeks	*
Introduction to Environmental Law and Policy	University of North Carolina	USA	08-Sep-14	6 weeks	*#
Introduction to Forensic Science	Nanyang Technological University	Singapore	11-Aug-14	8 weeks	*#
Introduction to Neuroeconomics	Higher School of Economics	Russia	23-Jun-14	9 weeks	*#
Introduction to Philosophy	University of Edinburgh	UK	15-Sep-14	7 weeks	*#
Introduction to Physical Chemistry	University of Manchester	UK	02-Jun-14	6 weeks	*#
Introduction to Power Electronics	University of Colorado	USA	01-Sep-14	9 weeks	*#
Introduction to Sustainability	University of Illinois	USA	25-Aug-14	8 weeks	*
Introduction to Systems Biology	ICahn School of Medicine	USA	02-Sep-14	10 weeks	*#
Introduction to Thermodynamics	University of Michigan	USA	02-Jun-14	8 weeks	*#
Latin American Culture	Tecnológico de Monterrey	Mexico	29-Aug-14	6 weeks	*#
Mathematical Methods for Quantitative Finance	University of Washington	USA	19-May-14	8 weeks	*#
Mechanics: Motion, Forces, Energy and Gravity, from Particles to Planets	University of New South Wales	Australia	25-Aug-14	8 weeks	*#
Metadata: Organizing and Discovering Information	University of North Carolina	USA	14-Jul-14	8 weeks	*#
Model Thinking	University of Michigan	USA	2-Jun-14	10 weeks	*#
Networked Life	University of Pennsylvania	USA	01-Sep-14	7 weeks	*#
Networks illustrated: Principles without calculus	Princeton University	USA	16-Jun-14	9 weeks	*#
Networks: Friends, Money, and Bytes	Princeton University	USA	15-Sep-14	12 weeks	*#
Nutrition and Physical Activity for Health	University of Pittsburgh	USA	16-Jun-14	6 weeks	*#
Nutrition, health, and lifestyle: Issues and Insights	Vanderbilt University	USA	15-Sep-14	8 weeks	*#
Ocean Solutions	University of Western Australia	Australia	26-May-14	8 weeks	*#
Online Games: Literature, New Media, and Narrative	Vanderbilt University	USA	14-Jul-14	7 weeks	*#
Organic Solar Cells - Theory and Practice	Technical University of Denmark	Denmark	02-Jun-14	6 weeks	*#
Our Energy Future	University of California, San Diego	USA	09-Jun-14	10 weeks	*#
Paradoxes of War	Princeton University	USA	1-Jun-14	8 weeks	*#
Pattern-Oriented Software Architectures: Programming Mobile Services for Android Handheld Systems	Vanderbilt University	USA	12-May-14	8 weeks	*#
Pre-Calculus	University of California, Irvine	USA	23-Jun-14	10 weeks	*#
Preparation for General Chemistry	Rutgers University	USA	07-Jul-14	6 weeks	*#
Presumed Innocent? The Social Science of Wrongful Conviction	Pennsylvania State University	USA	25-Jun-14	7 weeks	*#
Preventing Chronic Pain: A Human Systems Approach	University of Minnesota	USA	30-May	9 weeks	*#
Programmed Cell Death	Ludwig-Maximilians-Universität München	Germany	23-Jun-14	6 weeks	*#
Programming Cloud Services for Android Handheld Systems	Vanderbilt University	USA	21-Jul-14	6 weeks	*#
Resilience in Children Exposed to Trauma, Disaster and War: Global Perspectives	University of Minnesota	USA	15-Sep-14	6 weeks	*#
Scientific Computing	University of Washington	USA	26-Aug-14	10 weeks	*#
Social Entrepreneurship	University of Pennsylvania	USA	8-Sep-14	6 weeks	*#
Social Psychology	Wesleyan University	USA	14-Jul-14	7 weeks	*#
Sports and Society	Duke University	USA	1-Sep-14	7 weeks	*

Coursera (continued)					
Course name	Provider	Country	Start date	Duration	Key
Sustainability in Practice	University of Pennsylvania	USA	15-Sep-14	8 weeks	*#
Terrorism and counter-terrorism: Comparing theory and practice	Universiteit Leiden	Netherlands	8-Sep-14	6 weeks	*#
The Addicted Brain	Emory University	USA	23-Jun-14	8 weeks	*
The American Disease: Drugs and Drug Control in the USA	University of Florida	USA	14-Jul-14	10 weeks	*#
The Clinical Psychology of Children and Young People	University of Edinburgh	UK	28-Jul-14	5 weeks	*#
The Fiction of Relationship	Brown University	USA	1-Sep-14	14 weeks	*#
The French Revolution	University of Melbourne	Australia	7-Jul-14	8 weeks	*
The Hardware/Software Interface	University of Washington	USA	30-Jun-14	8 weeks	*#
The Power of Macroeconomics	University of California, Irvine	USA	21-Jun-14	11 weeks	*
The Science of Safety in Healthcare	Johns Hopkins University	USA	2-Jun-14	5 weeks	*#
Understanding Media by Understanding Google	Northwestern University	USA	26-May-14	6 weeks	*#
Understanding Research Methods	University of London	UK	2-Jun-14	6 weeks	*#
Understanding the Brain: The Neurobiology of Everyday Life	University of Chicago	USA	28-Apr-14	10 weeks	*#
Everyday Life					
Understanding Violence	Emory University	USA	3-Sep-14	6 weeks	*#
Visual Perception and the Brain	Duke University	USA	8-Sep-14	8 weeks	*#
Water Supply and Sanitation Policy in Developing Countries	University of Manchester	UK	26-May-14	6 weeks	*#
edX					
Course name	Provider	Country	Start date	Duration	Key
Age of Globalisation	University of Texas, Austin	USA	27-Aug-14	15 weeks	*#
Anthropology of Current World Issues	University of Queensland	Australia	1-Sep-14	8 weeks	*#
Autonomous Navigation for Flying Robots	Technische Universität München	Germany	6-May-14	8 weeks	*#
Becoming a Resilient Person: The Science of Stress	University of Washington	USA	6-May-14	9 weeks	*#
Behavioral Medicine: A Key to Better Health	Karolinska Institutet	Sweden	9-Sep-14	5 weeks	*#
China (Part 1): Political and Intellectual Foundations	Harvard University	USA	Anytime	-	*#
China (Part 6): The Manchus and the Qing	Harvard University	USA	22-May-14	6 weeks	*#
Circuits and Electronics	MIT	USA	25-Aug-14	-	*#
Civil War and Reconstruction, Part 1	Columbia University	USA	17-Sep-14	10 weeks	*
Cyber-Physical Systems	University of California, Berkeley	USA	6-May-14	6 weeks	*#
Effective Field Theory	MIT	USA	16-Sep-14	18 weeks	*#
Engaging India	Australian National University	Australia	29-Apr-14	10 weeks	*#
Engineering Software as a Service, Part 2	University of California, Berkeley	USA	10-Jun-14	6 weeks	*#
Exoplanets	Australian National University	Australia	24-Jun-14	10 weeks	*#
Explore Statistics with R	Karolinska Institutet	Sweden	9-Sep-14	5 weeks	*
Financial Programming and Policies, Part 1	International Monetary Fund	USA	2-Jun-14	6 weeks	*#
Fundamentals of Immunology, Part 1	Rice University	USA	18-Aug-14	8 weeks	*
Genomic Medicine Gets Personal	Georgetown University	USA	4-Jun-14	7 weeks	*#
Greatest Unsolved Mysteries of the Universe	Australian National University	Australia	Anytime	-	*#
Ideas of the Twentieth Century	University of Texas, Austin	USA	27-Aug-14	15 weeks	*#
Improving Global Health: Focusing on Quality and Safety	Harvard University	USA	16-Sep-14	8 weeks	*#
Introduction to Aeronautical Engineering	Delft University of Technology	Netherlands	25-Aug-14	7 weeks	*#
Introduction to Baseball Analytics	Boston University	USA	29-May-14	6 weeks	*#
Introduction to Biology – The Secret of Life	MIT	USA	17-Jun-14	12 weeks	*#
Introduction to Computer Programming, Part 1	Indian Institute of Technology	India	29-Jul-14	6 weeks	*#
Introduction to Computer Science	Harvard University	USA	Any time	-	*#
Introduction to Computer Science and Programming Using Python	MIT	USA	27-Aug-14	9 weeks	*
Introduction to Computing with Java	Hong Kong University of Science and Technology	Hong Kong	20-Jun-14	10 weeks	*#
Introduction to Global Sociology	Wellesley College	USA	2-Sep-14	12 weeks	*#
Introduction to Linux	Linux Foundation	USA	Anytime	-	*#
Introduction to Solid State Chemistry	MIT	USA	12-May-14	15 weeks	*
Introduction to Statistics: Inference	University of California, Berkeley	USA	1-Jun-14	5 weeks	*
Introduction to the Music Business	Berklee College of Music	USA	27-May-14	-	*#
Introduction to Water and Climate	Delft University of Technology	Netherlands	26-Aug-14	8 weeks	*
Justice	Harvard University	USA	8-Apr-14	12 weeks	*#
Leaders of Learning	Harvard University	USA	8-Jul-14	6 weeks	*#
Mechanical Behaviour of Materials	MIT	USA	3-Sep-14	15 weeks	*#
Mechanics ReView	MIT	USA	29-May-14	15 weeks	*#
Natural Disasters	McGill University	Canada	28-May-14	13 weeks	*#
Networks, Crowds and Markets	Cornell University	USA	Anytime	-	*#
Poetry in America: The Poetry of Early New England	Harvard University	USA	10-Sep-14	5 weeks	*#
Positive Behavior Support for Young Children	University of Washington	USA	10-Jun-14	9 weeks	*#
Principles of Electric Circuits	Tsinghua University	China	15-Sep-14	15 weeks	*
Principles of Written English, Part 1	University of California, Berkeley	USA	17-Sep-14	5 weeks	*#
Quantitative Biology Workshop	MIT	USA	10-Jun-14	7 weeks	*#
Robot Mechanics and Control, Part II	Seoul National University	Sth Korea	2-Jun-14	6 weeks	*#
Solar Energy	Delft University of Technology	Netherlands	1-Sep-14	14 weeks	*#
Tangible Things: Discovering History Through Artworks, Artefacts, Scientific Specimens, and the Stuff Around You	Harvard University	USA	2-Jun-14	5 weeks	*#
The Chemistry of Life	Kyoto University	Japan	10-Apr-14	13 weeks	*#
The Evolving Universe	Caltech	USA	22-Apr-14	10 weeks	*#
The Science of Happiness	University of California, Berkeley	USA	9-Sep-14	10 weeks	*
Thermodynamics	Indian Institute of Technology	India	29-Jul-14	12 weeks	*#
Tropical Coastal Ecosystems	University of Queensland	Australia	28-Apr-14	7 weeks	*#
Visualizing Japan (1850s-1930s): Westernization, Protest, Modernity	Harvard University and MIT	USA	3-Sep-14	5 weeks	*
Vocal Recording Technology	Berklee College of Music	USA	26-May-14	6 weeks	*#
Wiretaps to Big Data: Privacy and Surveillance in the Age of Interconnection	Cornell University	USA	Anytime	-	*#

Udacity					
Course name	Provider	Country	Start date	Duration	Key
Applied Cryptography	Udacity	USA	-	-	*#
Artificial Intelligence for Robotics	Udacity/Georgia Tech	USA	-	8 weeks	*#
College Algebra	Udacity/San Jose State University	USA	-	-	*#
Computer Networking	Udacity/Georgia Tech	USA	-	-	*#
Data Wrangling with MongoDB	Udacity/MongoDB	USA	-	8 weeks	*#
Design of Computer Programs	Udacity	USA	-	-	*#
Developing Android Apps	Udacity/Google	USA	-	-	*#
Developing Scalable Apps	Udacity/Google	USA	-	-	*#
Differential Equations in Action	Udacity	USA	-	-	*#
Exploratory Data Analysis	Udacity/Facebook	USA	-	8 weeks	*#
Functional Hardware Verification	Udacity/Cadence	USA	-	-	*#
How to Build a Startup	Udacity	USA	-	-	*#
How to Use Git and GitHub	Udacity	USA	-	-	*#
HTML5 Game Development	Udacity/Google	USA	-	-	*#
Interactive 3D Graphics	Udacity/Autodesk	USA	-	-	*#
Intro to Algebra Review	Udacity	USA	-	-	*#
Intro to Algorithms	Udacity	USA	-	-	*#
Intro to Artificial Intelligence	Udacity	USA	-	-	*#
Intro to Computer Science	Udacity	USA	-	8 weeks	*#
Intro to Data Science	Udacity	USA	-	8 weeks	*#
Intro to Hadoop and MapReduce	Udacity/Cloudera	USA	-	4 weeks	*#
Intro to HTML and CSS	Udacity	USA	-	-	*#
Intro to Inferential Statistics	Udacity	USA	-	-	*#
Intro to Java programming	Udacity/San Jose State University	USA	-	-	*#
Intro to Parallel Programming	Udacity/Nvidia	USA	-	-	*#
Intro to Physics	Udacity	USA	-	-	*#
Intro to Point and Click App Development	Udacity/Salesforce	USA	-	-	*#
Intro to Psychology	Udacity/San Jose State University	USA	-	-	*#
Intro to Statistics	Udacity	USA	-	-	*#
Intro to the Design of Everyday Things	Udacity	USA	-	-	*#
Intro to Theoretical Computer Science	Udacity	USA	-	-	*#
JavaScript Basics	Udacity	USA	-	-	*#
Machine Learning 1 - Supervised Learning	Udacity/Georgia Tech	USA	17-Mar-14	8 weeks	*#
Machine Learning 2 - Unsupervised Learning	Udacity/Georgia Tech	USA	14-Apr-14	4 weeks	*#
Machine Learning 3 - Reinforcement Learning	Udacity/Georgia Tech	USA	12-May-14	4 weeks	*#
Make Your Own 2048	Udacity	USA	-	-	*#
Mobile Web Development	Udacity/Google	USA	-	4 weeks	*#
Object-Oriented JavaScript	Udacity/Hack Reactor	USA	-	-	*#
Programming Foundations with Python	Udacity	USA	-	-	*#
Programming Languages	Udacity	USA	-	-	*#
Software Debugging	Udacity	USA	-	-	*#
Software Development Life Cycles	Udacity/Georgia Tech	USA	-	-	*#
Software Testing	Udacity	USA	-	-	*#
Statistics	Udacity/San Jose State University	USA	-	-	*#
Tales from the Genome	Udacity/23andMe	USA	-	-	*#
UX Design for Mobile Developers	Udacity/Google	USA	-	-	*#
Visualizing Algebra	Udacity/San Jose State University	USA	-	-	*#
Web Development	Udacity/reddit.com	USA	-	6 weeks	*#
Website Performance Optimisation	Udacity/Google	USA	-	-	*#

III. ONLINE SURVEY QUESTIONNAIRE

Attitudes and experiences of Massive Open Online Course participants

Section 1. OVERVIEW OF EXPERIENCE

Over the past couple of years, Massive Open Online Courses or MOOCs, have received widespread global attention. This first section is about getting some general information about how you came to be involved with MOOCs.

MOOCs, as their full name suggests, are a form of education that, according to the three biggest providers Coursera, edX and Udacity, can occur anywhere, anytime, via the internet.

Q1.What has been your overall impression of open online courses so far?

Before we move on, please provide a bit more information about yourself.

Q2.When were you born? Just the year will do _____

Q3.What is your sex?

- Male
- Female
- Other

Now we'll look more at your experience with open online courses in more detail.

Q4. It is clear that people enrol in open online courses for different reasons. What are your reasons for participating in these courses? Select all that apply.

- Other forms of higher education are too expensive
- I live too far away to physically attend a university
- I don't have enough time to study towards a university degree
- I don't meet the entry requirements for studying towards a university degree
- I have a disability or impairment that makes other forms of study challenging
- To supplement current study towards a qualification (other than an open online course)
- To enhance my career prospects
- To see what the university/organisation providing the course has to offer
- Personal enjoyment
- The prestige of the universities and organisations teaching the courses
- Other, please specify: _____

Comments: _____

Okay, now consider the list again...

Q5.What is your main reason for participation? Select one option only.

- Other forms of higher education are too expensive
- I live too far away to physically attend a university
- I don't have enough time to study towards a university degree
- I don't meet the entry requirements for studying towards a university degree
- I have a disability or impairment that makes other forms of study challenging
- To supplement current study towards a qualification (other than an open online course)
- To enhance my career prospects
- To see what the university/organisation providing the course has to offer
- Personal enjoyment
- The prestige of the universities and organisations teaching the courses
- Other, please specify: _____

Comments: _____

Thinking back about all the open online courses you've undertaken...

Q6. With which platforms have you enrolled in courses? Select all that apply.

- Coursera
- edX
- Udacity
- Other, please specify

Section 2. PARTICIPATION

Everybody learns in different ways, be it through visual demonstration, written text, learning-by-doing, or through discussion with others. This section looks specifically participation in open online courses to help get an idea of how people approach this particular online learning environment. Firstly...

Q7. What resources do you use when undertaking open online courses? Select all that apply.

- Official videos, lecture notes and forums
- Other online resources (e.g. websites, forums, journals, social media)
- Other physical resources (e.g. books, magazines, newspapers)
- Online gatherings with other course participants outside of official course forums (e.g. via Skype, Google Hangout)
- Face-to-face gatherings with other course participants
- Other, please specify

Q8. For all the open online courses that you've participated in, what has been the relative distance between you and the course provider? Select one option only.

- Mostly in the same state/territory/province
- Mostly in different state/territory/province but same country
- Mostly in different country
- Don't know

Think about your experience with open online courses. Please rate your level of agreement with the following statements:

Q9. I would like more structure around my learning, such as a set location and schedule

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q10. I love the freedom to study at my own convenience

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q11. I always have access to a reliable internet connection

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Now onto your opinion of the courses you have undertaken...

Q12. How would you rate the delivery of the open online courses that you have experienced?

- Excellent
- Average
- Poor

Q13. How did your experience of these courses compare with your expectations?

- Everything that I expected
- I didn't know what to expect
- I expected more

Q14. How has your experience with open online courses impacted your approach to higher education generally?

- I am less inclined to enrol in or complete a university degree (whether online or offline); open online courses are all I need
- I am more inclined to enrol in or complete a university degree (whether online or offline); open online courses are not enough
- My view hasn't changed; open online courses are not much different from what is already happening in higher education

Comments: _____

One last set of questions to conclude this section. Please state your level of agreement with the following statements:

Q15. When participating in an open online course, I feel a strong connection to other participants

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q16. I feel like part of a learning community with open online courses

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q17. I like to help others to achieve their learning goals with open online courses and expect similar help in return

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q18. By participating in open online courses, I can influence others

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q19. I interact more with participants of open online courses than I do with course content

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Section 3. MOTIVATION & PERFORMANCE

While there are various reasons for enrolling in open online courses, there are still many people who do not actually complete them. In this section, we turn to the issues of motivation and performance in open online courses.

As users well know, open online courses generally do not attract formal academic credit or tuition fees

Q20. How has the general lack of academic credit impacted on your experience of such courses?

- It motivates me to learn
- I find it difficult to stay motivated to learn
- It doesn't really affect me

Q21. How has the general lack of fees impacted on your experience of such courses?

- It motivates me to learn
- I find it difficult to stay motivated to learn
- It doesn't really affect me

Okay, now let's look at credit and fees more closely. Please state your level agreement with the following statements:

Q22. Not having academic credit means that I don't have to worry about grades

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q23. Not having academic credit means that I don't get the recognition that I deserve

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q24. Without academic credit, open online courses have little educational value; it's hard to learn without the incentive of grades

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q25. Without academic credit, open online courses have little employment value; employers favour formal credentials

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q26. Without academic credit, open online courses have high personal value; they promote learning for learning's sake

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q27. Not having to pay tuition fees means that I don't have to worry about how to finance my education

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q28. Not having to pay tuition fees means that I don't have the financial incentive to make an effort

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Let's now focus at the course providers themselves.

Q29. Coursera, edX and Udacity talk of providing courses from the worlds best. Do you think open online courses offered by prestigious universities or organisations are different from other free course offerings?

- Yes
- No

Q30. Why/why not? _____

Q31. How important is it that prestigious universities/organisations deliver open online courses well?

- Very important
- Somewhat important
- Not very important
- Not important at all

Q32. And why do you think that is? _____

Section 4. PERCEPTION

Open online courses have, indeed, become a massive phenomenon. Millions of users all over the world have now taken part in a whole range of courses, from economics to equine nutrition. In this section, the focus is on how you see yourself (generally and as a course participant) and what participation in these courses means to you. Let's start by getting your level of agreement with the following statements.

Q33. By participating in open online courses, I can have control over my education

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q34. Open online courses allow me to make my views heard

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q35. I can improve my job prospects through open online courses

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q36. Participating in open online courses makes me feel confident in my abilities

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q37. Open online courses have enabled me to foster relationships with others (online and/or offline)

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them...

Q38. Please use this scale where 1 means no choice at all and 10 means a great deal of choice to indicate how much freedom of choice and control you feel you have over the way your life turns out.

- 1 [no choice at all]
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 [a great deal of choice]

Comments: _____

People also have different views about themselves and how they relate to the world. Please indicate how strongly you agree or disagree with each of the following statements about how you see yourself:

Q39. I see myself as a world citizen

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q40. I see myself as part of my local community

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q41. I see myself as part of my country

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q42. I see myself as an autonomous individual

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Looking at identity once again...

Q43. How would you describe yourself as a participant of open online courses?

- A student of the university/organisation running the course (e.g. a Harvard student)
- A student of the MOOC platform (e.g. a Coursera student)
- A general learner
- Other, please specify: _____

Think about your experience with open online courses once more. Please state whether your level of agreement with the following statements:

Q44. When talking about participants of open online courses, I refer to WE rather than THEY

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q45. I take criticism of open online courses as a personal insult

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q46. I feel comfortable interacting with other online course participants

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q47. I feel an obligation to assist fellow online course participants when they ask for help

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q48. I'm not just an individual learner; I'm part of a cohort

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q49. The success of other online course participants makes me feel good

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q50. I have the same goals as other online course participants

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Q51. The relationships I have with other online course participants are very rewarding

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Massive Open Online Courses have attracted a great deal of attention as a social movement with both supporters and opponents...

Q52. Do you think there is such a thing as the Massive Open Online Course (MOOC) movement?

- Yes
- No

Q53. Why/why not? _____

Q54. Do you consider yourself to be part of the MOOC movement?

- Yes
- No

Q55. Why/why not? _____

Section 5. BACKGROUND INFORMATION

Although Massive Open Online Courses have been around for a while now, not much is known about the course participants themselves. To help understand the experiences and attitudes of these participants better, please provide some background information about yourself by answering the questions below.

Q56. In which country were you born?

Select from list

Q57. In which country do you reside?

Select from list

Q58. What is the highest year of school you have completed?

- No formal education
- Year 5 or below
- Year 6 or equivalent
- Year 7 or equivalent
- Year 8 or equivalent
- Year 9 or equivalent
- Year 10 or equivalent
- Year 11 or equivalent
- Year 12 or equivalent

Q59. What is your highest non-school qualification?

- No non-school qualification
- Post-Year 12 qualification other than university level (e.g. Technical or Vocational certification)
- Bachelor Degree (including honours)
- Graduate Diploma/Certificate
- Masters Degree
- Doctoral Degree

Q60. Are you currently studying towards a non-school qualification (not including open online courses)?

- Yes
- No

Q61. What level of non-school qualification are you currently studying towards?

- Not currently studying towards a qualification
- Studying towards post-Year 12 qualification other than university level (e.g. Technical or Vocational certification)
- Studying towards Bachelor Degree (including honours)
- Studying towards Graduate Diploma/Certificate
- Studying towards Masters Degree
- Studying towards Doctoral Degree

Q62. Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job

- Yes, in paid employment - Full-time employee (30 hours a week or more)
- Yes, in paid employment - Part-time employee (less than 30 hours a week)
- Yes, in paid employment - Self employed
- No, not in paid employment - Retired/pensioned
- No, not in paid employment - Housewife not otherwise employed
- No, not in paid employment - Student
- No, not in paid employment - Unemployed
- Other, please specify: _____

Q63. If employed, what is your occupation, i.e. what is the name or title of your main job?

Please describe fully, using two words or more; for example, builders labourer not labourer, accounts clerk not clerk, deer farmer not farmer. _____

People learn what is going on in their country and the world from various sources. For each of the following sources, please indicate whether you use it to obtain information daily, weekly, monthly, less than monthly or never.

	Daily	Weekly	Monthly	< Monthly	Never
Q64. Daily newspaper					
Q65. Printed magazines					
Q66. TV news					
Q67. Radio news					
Q68. Mobile phone					
Q69. Email					
Q70. Internet					
Q71. Talk with friends or colleagues					

Section 6. GENERAL ATTITUDES

This section looks at some more general issues about education and technology.

Below is a list of brief descriptions of people. Would you please indicate for each description whether that person is very much like you, like you, somewhat like you, a little like you, not like you or not at all like you?

Q72. It is important to this person to think up new ideas and be creative; to do things one's own way

- Very much like me
- Like me
- Somewhat like me
- A little like me
- Not like me
- Not at all like me

Q73. It is important to this person to do something for the good of society

- Very much like me
- Like me
- Somewhat like me
- A little like me
- Not like me
- Not at all like me

Q74. Being very successful is important to this person; to have people recognise one's achievements

- Very much like me
- Like me
- Somewhat like me
- A little like me
- Not like me
- Not at all like me

Q75. Tradition is important to this person; to follow the customs handed down by one's religion or family

- Very much like me
- Like me
- Somewhat like me
- A little like me
- Not like me
- Not at all like me

For each of the statements listed below, please indicate how much you agree or disagree with it using the scale below where 1 means completely disagree and 10 means completely agree.

Q76. Science and technology are making our lives healthier, easier and more comfortable

1 [Completely disagree] 2 3 4 5 6 7 8 9 10 [Completely agree]

Q77. Because of science and technology, there will be more opportunities for the next generation

1 [Completely disagree] 2 3 4 5 6 7 8 9 10 [Completely agree]

Below is a list of institutions. For each one, please indicate how much confidence you have in them. Is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?

	A great deal	Quite a lot	Not very much	None at all
Q78. The Press				
Q79. The Police				
Q80. The Government				
Q81. Universities				

Section 7. CLOSING REMARKS

Thank you for taking your time to complete this survey. Your views are greatly appreciated and vitally important to understanding how people from around the world experience open online courses.

Q82. If you have any other comments that you would like to add about your experience with these courses that have not been previously addressed in this survey, please add them here. And remember, the more detail you include, the better!

Q83. If you are happy to be contacted by email to answer follow up questions at a later date, please provide your email address here: _____

IV. COUNTRY OF BIRTH OF SURVEY RESPONDENTS

Country	N	%	Country	N	%
Albania	1	0.05	Lithuania	2	0.09
Algeria	2	0.09	Macedonia	1	0.05
Argentina	14	0.65	Madagascar	1	0.05
Australia	70	3.23	Malawi	1	0.05
Austria	3	0.14	Malaysia	22	1.01
Bahrain	1	0.05	Malta	3	0.14
Bangladesh	5	0.23	Mauritania	1	0.05
Barbados	1	0.05	Mauritius	2	0.09
Belarus	1	0.05	Mexico	45	2.07
Belgium	11	0.51	Mongolia	1	0.05
Benin	1	0.05	Morocco	3	0.14
Bhutan	1	0.05	Mozambique	2	0.09
Bolivia	2	0.09	Namibia	1	0.05
Botswana	1	0.05	Nepal	4	0.18
Brazil	37	1.71	Netherlands	29	1.34
Bulgaria	5	0.23	New Zealand	14	0.65
Burma	1	0.05	Nigeria	13	0.60
Cambodia	1	0.05	Norway	3	0.14
Canada	77	3.55	Oman	1	0.05
Chile	8	0.37	Pakistan	20	0.92
China	53	2.44	Paraguay	1	0.05
Colombia	16	0.74	Peru	4	0.18
Costa Rica	2	0.09	Philippines	26	1.20
Cote d'Ivoire	3	0.14	Poland	20	0.92
Croatia	9	0.41	Portugal	15	0.69
Cyprus	4	0.18	Romania	18	0.83
Czech Republic	8	0.37	Russia/USSR	43	1.98
Denmark	8	0.37	Rwanda	1	0.05
Dominican Republic	3	0.14	Saint Lucia	2	0.09
Ecuador	1	0.05	Saudi Arabia	3	0.14
Egypt	8	0.37	Serbia	11	0.51
El Salvador	1	0.05	Singapore	98	4.52
Estonia	4	0.18	Slovakia	4	0.18
Ethiopia	1	0.05	Slovenia	3	0.14
Fiji	1	0.05	South Africa	21	0.97
Finland	10	0.46	South Korea	4	0.18
France	35	1.61	Spain	61	2.81
Gabon	1	0.05	Sri Lanka	4	0.18
Germany	52	2.40	Sudan	1	0.05
Ghana	4	0.18	Swaziland	1	0.05
Greece	44	2.03	Sweden	4	0.18
Grenada	1	0.05	Switzerland	6	0.28
Guatemala	4	0.18	Syria	2	0.09
Guyana	1	0.05	Taiwan	7	0.32
Haiti	1	0.05	Tanzania	1	0.05
Honduras	3	0.14	Thailand	3	0.14
Hong Kong	12	0.55	Trinidad and Tobago	3	0.14
Hungary	12	0.55	Tunisia	1	0.05
Iceland	1	0.05	Turkey	8	0.37
India	154	7.10	Uganda	2	0.09
Indonesia	12	0.55	Ukraine	13	0.60
Iran	7	0.32	United Arab Emirates	1	0.05
Iraq	1	0.05	United Kingdom (UK)	182	8.39
Ireland	11	0.51	United States of America (USA)	604	27.83
Israel	7	0.32	Uruguay	2	0.09
Italy	43	1.98	Venezuela	5	0.23
Jamaica	3	0.14	Vietnam	5	0.23
Japan	4	0.18	Zambia	2	0.09
Kazakhstan	4	0.18	Zimbabwe	1	0.05
Kenya	6	0.28	Cameroon	1	0.05
Kiribati	1	0.05	Puerto Rico (USA)	2	0.09
Latvia	3	0.14	Catalonia (Spain)	1	0.05
Libya	2	0.09			
			Total responses	2,170	100.00
			Missing	21	
			Total	2,191	

V. COUNTRY OF RESIDENCE OF SURVEY RESPONDENTS

Country	N	%	Country	N	%
Algeria	1	0.05	Madagascar	1	0.05
Argentina	11	0.51	Malawi	1	0.05
Australia	92	4.26	Malaysia	14	0.65
Austria	6	0.28	Malta	2	0.09
Bahrain	2	0.09	Mauritius	3	0.14
Bangladesh	4	0.19	Mexico	41	1.90
Barbados	1	0.05	Morocco	1	0.05
Belarus	2	0.09	Nepal	2	0.09
Belgium	12	0.56	Netherlands	38	1.76
Bhutan	1	0.05	Netherlands Antilles	1	0.05
Bolivia	1	0.05	New Zealand	26	1.20
Botswana	1	0.05	Nigeria	10	0.46
Brazil	34	1.57	Norway	3	0.14
Brunei	1	0.05	Pakistan	14	0.65
Bulgaria	5	0.23	Paraguay	1	0.05
Canada	97	4.49	Peru	4	0.19
Chile	9	0.42	Philippines	21	0.97
China	46	2.13	Poland	11	0.51
Colombia	10	0.46	Portugal	20	0.93
Costa Rica	3	0.14	Romania	10	0.46
Cote d'Ivoire	3	0.14	Russia	33	1.53
Croatia	6	0.28	Rwanda	1	0.05
Cyprus	3	0.14	Saint Lucia	2	0.09
Czech Republic	11	0.51	Samoa	1	0.05
Denmark	10	0.46	Saudi Arabia	4	0.19
Dominican Republic	2	0.09	Senegal	1	0.05
Ecuador	1	0.05	Serbia	7	0.32
Egypt	7	0.32	Singapore	116	5.37
Estonia	4	0.19	Slovakia	2	0.09
Finland	9	0.42	Slovenia	3	0.14
France	37	1.71	South Africa	17	0.79
Germany	49	2.27	South Korea	4	0.19
Ghana	3	0.14	Spain	66	3.05
Greece	43	1.99	Sri Lanka	2	0.09
Grenada	1	0.05	Sudan	1	0.05
Guatemala	3	0.14	Swaziland	1	0.05
Guyana	1	0.05	Sweden	9	0.42
Haiti	2	0.09	Switzerland	9	0.42
Honduras	2	0.09	Syria	2	0.09
Hong Kong	12	0.56	Taiwan	4	0.19
Hungary	13	0.60	Thailand	6	0.28
Iceland	1	0.05	Trinidad and Tobago	2	0.09
India	131	6.06	Tunisia	2	0.09
Indonesia	6	0.28	Turkey	7	0.32
Iran	4	0.19	Uganda	1	0.05
Iraq	1	0.05	Ukraine	8	0.37
Ireland	15	0.69	United Arab Emirates	3	0.14
Israel	10	0.46	United Kingdom (UK)	167	7.73
Italy	31	1.43	United States of America (SA)	652	30.17
Jamaica	2	0.09	Uruguay	3	0.14
Japan	7	0.32	Venezuela	2	0.09
Kazakhstan	3	0.14	Vietnam	4	0.19
Kenya	8	0.37	Zambia	1	0.05
Laos	1	0.05	Cameroon	1	0.05
Latvia	2	0.09	Bermuda (UK)	1	0.05
Libya	2	0.09	Puerto Rico (USA)	2	0.09
Lithuania	2	0.09	Catalonia (Spain)	2	0.09
Macedonia	1	0.05			
			Total responses	2,161	100.00
			Missing	30	
			Total	2,191	

VI. UNITED NATIONS GEOScheme

Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other grouping.

Geographical region and composition of each region

AFRICA	Senegal Sierra Leone Togo	Northern America Bermuda Canada Greenland Saint Pierre and Miquelon United States of America
Eastern Africa Burundi Comoros Djibouti Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Mayotte Mozambique Réunion Rwanda Seychelles Somalia South Sudan Uganda United Republic of Tanzania Zambia Zimbabwe	AMERICAS Latin America and the Caribbean Caribbean Anguilla Antigua and Barbuda Aruba Bahamas Barbados Bonaire, Sint Eustatius and Saba British Virgin Islands Cayman Islands Cuba Curaçao Dominica Dominican Republic Grenada Guadeloupe Haiti Jamaica Martinique Montserrat Puerto Rico Saint-Barthélemy Saint Kitts and Nevis Saint Lucia Saint Martin (French part) Saint Vincent and the Grenadines Sint Maarten (Dutch part) Trinidad and Tobago Turks and Caicos Islands United States Virgin Islands	ASIA Central Asia Kazakhstan Kyrgyzstan Tajikistan Turkmenistan Uzbekistan Eastern Asia China China, Hong Kong Special Administrative Region China, Macao Special Administrative Region Democratic People's Republic of Korea Japan Mongolia Republic of Korea Southern Asia Afghanistan Bangladesh Bhutan India Iran (Islamic Republic of) Maldives Nepal Pakistan Sri Lanka South-Eastern Asia Brunei Darussalam Cambodia Indonesia Lao People's Democratic Republic Malaysia Myanmar Philippines Singapore Thailand Timor-Leste Viet Nam Western Asia Armenia Azerbaijan Bahrain Cyprus Georgia Iraq Israel Jordan Kuwait Lebanon Oman Qatar Saudi Arabia
Middle Africa Angola Cameroon Central African Republic Chad Congo Democratic Republic of the Congo Equatorial Guinea Gabon Sao Tome and Principe	Central America Belize Costa Rica El Salvador Guatemala Honduras Mexico Nicaragua Panama	
Northern Africa Algeria Egypt Libya Morocco Sudan Tunisia Western Sahara	South America Argentina Bolivia (Plurinational State of) Brazil Chile Colombia Ecuador Falkland Islands (Malvinas) French Guiana Guyana Paraguay Peru Suriname Uruguay Venezuela (Bolivarian Republic of)	
Southern Africa Botswana Lesotho Namibia South Africa Swaziland		
Western Africa Benin Burkina Faso Cabo Verde Cote d'Ivoire Gambia Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria Saint Helena		

State of Palestine
Syrian Arab Republic
Turkey
United Arab Emirates
Yemen

EUROPE

Eastern Europe

Belarus
Bulgaria
Czech Republic
Hungary
Poland
Republic of Moldova
Romania
Russian Federation
Slovakia
Ukraine

Northern Europe

Åland Islands
Channel Islands
Denmark
Estonia
Faeroe Islands
Finland
Guernsey
Iceland
Ireland
Isle of Man
Jersey
Latvia
Lithuania
Norway

Sark
Svalbard and Jan Mayen Islands
Sweden
United Kingdom of Great Britain
and Northern Ireland

Southern Europe

Albania
Andorra
Bosnia and Herzegovina
Croatia
Gibraltar
Greece
Holy See
Italy
Malta
Montenegro
Portugal
San Marino
Serbia
Slovenia
Spain
The former Yugoslav Republic of
Macedonia

Western Europe

Austria
Belgium
France
Germany
Liechtenstein
Luxembourg
Monaco
Netherlands
Switzerland

OCEANIA

Australia and New Zealand

Australia
New Zealand
Norfolk Island

Melanesia

Fiji
New Caledonia
Papua New Guinea
Solomon Islands
Vanuatu

Micronesia

Guam
Kiribati
Marshall Islands
Micronesia (Federated States of)
Nauru
Northern Mariana Islands
Palau

Polynesia

American Samoa
Cook Islands
French Polynesia
Niue
Pitcairn
Samoa
Tokelau
Tonga
Tuvalu
Wallis and Futuna Island

Developed and developing regions

Developing regions

Africa
Americas (excluding Northern America)
Caribbean
Central America
South America
Asia (excluding Japan)
Oceania (excluding Australia and New Zealand)

Developed regions

Northern America
Europe
Japan
Australia and New Zealand

Source of UN Geoscheme:

<http://unstats.un.org/unsd/methods/m49/m49regin.htm>

Least developed countries

Afghanistan
Angola
Bangladesh
Benin
Bhutan
Burkina Faso
Burundi
Cambodia
Central African Republic
Chad
Comoros
Democratic Republic of the
Congo
Djibouti
Equatorial Guinea
Eritrea
Ethiopia

Gambia
Guinea
Guinea Bissau
Haiti
Kiribati
Lao People's Democratic
Republic
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mozambique
Myanmar
Nepal
Niger

Rwanda
Sao Tome and Principe
Senegal
Sierra Leone
Solomon Islands
Somalia
South Sudan
Sudan
Timor-Leste
Togo
Tuvalu
Uganda
United Republic of Tanzania
Vanuatu
Yemen
Zambia

VII. CODES OF VARIABLES USED IN ANALYSIS

Excludes reasons for participating in MOOCs. Full tables of responses for all and main reasons were already included in the body of the thesis.

Variable	Code
Age	
17 and below	1
18-24	2
25-34	3
35-44	4
45-54	5
55-64	6
65-74	7
75+	8
Sex	
Male	1
Female	2
Highest qualification attained	
<i>Level of qualification</i>	
None	1
Vocational/technical diploma/certificate	2
Bachelor degree	3
Masters degree	4
PhD	5
<i>University qualification completed</i>	
No	1
Yes	2
Employment status	
Not employed	1
Employed	2
Country of residence	
<i>Geographic region</i>	
North America	1
Europe	2
Asia	3
Oceania	4
Latin America and the Caribbean	5
Africa	6
<i>Level of development</i>	
Developing regions	1
Developed regions	2
<i>Relative level of development</i>	
World's least developed countries	1
Remaining countries	2
No credit means low educational value	
Disagree/Strongly Disagree	1
Agree/Strongly Agree	2
No credit means low employment value	
Disagree/Strongly Disagree	1
Agree/Strongly Agree	2

No credit means low personal value	
Disagree	1
Agree	2
Identification as a MOOC user (4 categories)	
A general learner	1
A student of the MOOC platform (e.g. a Coursera student)	2
A student of the university/organisation running the course (e.g. a Harvard student)	3
Other	4
Identification as a MOOC user (2 categories, for correlation)	
Other	1
Identifies as student of MOOC platform	2
Sense of connection	
Scale: 1 = weak sense of connection to 4 = strong sense of connection	-
Sense of empowerment	
Scale: 1 = weak sense of empowerment to 4 = strong sense of empowerment	-
Educational empowerment	
No	1
Yes	2
Economic empowerment	
No	1
Yes	2
Political empowerment	
No	1
Yes	2
Psychological empowerment	
No	1
Yes	2
Social empowerment	
No	1
Yes	2
Perception of choice in life generally	
Scale: 1 = No choice at all to 10 = A great deal of choice	-
Importance of elite MOOC providers delivering high-quality courses	
Very important	1
Somewhat important	2
Not very important	3
Not important at all	4
Perception of the delivery of MOOCs experienced	
Excellent	1
Average	2
Poor	3
Experience vs expectations of MOOCs	
Met or exceeded expectations	1
Below expectations	2
Unsure	3
MOOCs should be more structured	
Disagree/Strongly Disagree	1
Agree/Strongly Agree	2
Impact of lack of credit in MOOCs	
Demotivates me	1
Doesn't really affect me	2
Motivates me	3

Impact of lack of fees in MOOCs	
Demotivates me	1
Doesn't really affect me	2
Motivates me	3
Lack of credit means lack of grade anxiety	
Disagree/Strongly Disagree	1
Agree/Strongly Agree	2
Lack of fees means lack of financial anxiety	
Disagree/Strongly Disagree	1
Agree/Strongly Agree	2
Is there such thing as the 'MOOC movement'?	
No	1
Yes	2
Do you consider yourself part of the MOOC movement?	
No	1
Yes	2

VIII. SENSE OF EMPOWERMENT COMPOSITE SCALE

Test for reliability

Case Processing Summary

		N	%
Cases	Valid	2053	93.7
	Excluded ^a	138	6.3
	Total	2191	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.704	.705	5

Item Statistics

	Mean	Std. Deviation	N
By participating in open online courses, I can have control over my education	3.30	.623	2053
Open online courses allow me to make my views heard	2.59	.748	2053
I can improve my job prospects through open online courses	2.78	.733	2053
Participating in open online courses makes me feel confident in my abilities	3.21	.631	2053
Open online courses have enabled me to foster relationships with others (online and/or offline)	2.31	.795	2053

Inter-Item Correlation Matrix

	By participating in open online courses, I can have control over my education	Open online courses allow me to make my views heard	I can improve my job prospects through open online courses	Participating in open online courses makes me feel confident in my abilities	Open online courses have enabled me to foster relationships with others (online and/or offline)
By participating in open online courses, I can have control over my education	1.000	.288	.285	.355	.195
Open online courses allow me to make my views heard	.288	1.000	.344	.291	.472
I can improve my job prospects through open online courses	.285	.344	1.000	.399	.324
Participating in open online courses makes me feel confident in my abilities	.355	.291	.399	1.000	.285
Open online courses have enabled me to foster relationships with others (online and/or offline)	.195	.472	.324	.285	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.324	.195	.472	.277	2.417	.005	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
By participating in open online courses, I can have control over my education	10.88	4.374	.384	.176	.685
Open online courses allow me to make my views heard	11.60	3.723	.513	.291	.633
I can improve my job prospects through open online courses	11.41	3.843	.482	.244	.647
Participating in open online courses makes me feel confident in my abilities	10.98	4.155	.470	.246	.654
Open online courses have enabled me to foster relationships with others (online and/or offline)	11.88	3.713	.463	.263	.657

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
14.19	5.764	2.401	5

Principle component analysis

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.298	45.954	45.954	2.298	45.954	45.954
2	.904	18.075	64.029			
3	.698	13.960	77.989			
4	.592	11.839	89.827			
5	.509	10.173	100.000			

Extraction Method: Principal Component Analysis.

Correlation Matrix

	By participating in open online courses, I can have control over my education	Open online courses allow me to make my views heard	I can improve my job prospects through open online courses	Participating in open online courses makes me feel confident in my abilities	Open online courses have enabled me to foster relationships with others (online and/or offline)
By participating in open online courses, I can have control over my education	1.000	.287	.285	.367	.187
Open online courses allow me to make my views heard	.287	1.000	.348	.294	.469
I can improve my job prospects through open online courses	.285	.348	1.000	.394	.319
Participating in open online courses makes me feel confident in my abilities	.367	.294	.394	1.000	.281
Open online courses have enabled me to foster relationships with others (online and/or offline)	.187	.469	.319	.281	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.741
Bartlett's Test of Sphericity	Approx. Chi-Square	1725.267
	df	10
	Sig.	.000

Communalities

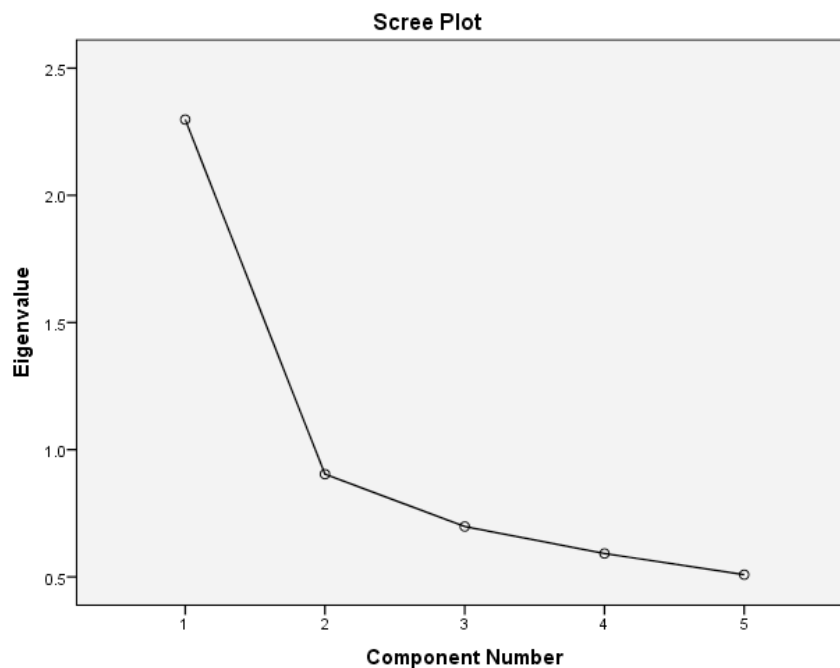
	Initial	Extraction
By participating in open online courses, I can have control over my education	1.000	.366
Open online courses allow me to make my views heard	1.000	.518
I can improve my job prospects through open online courses	1.000	.490
Participating in open online courses makes me feel confident in my abilities	1.000	.477
Open online courses have enabled me to foster relationships with others (online and/or offline)	1.000	.447

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.298	45.954	45.954	2.298	45.954	45.954
2	.904	18.075	64.029			
3	.698	13.960	77.989			
4	.592	11.839	89.827			
5	.509	10.173	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix^a**

	Component 1
Open online courses allow me to make my views heard	.720
I can improve my job prospects through open online courses	.700
Participating in open online courses makes me feel confident in my abilities	.691
Open online courses have enabled me to foster relationships with others (online and/or offline)	.669
By participating in open online courses, I can have control over my education	.605

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

IX. SENSE OF CONNECTION COMPOSITE SCALE

Test for reliability

Case Processing Summary

		N	%
Cases	Valid	1961	89.5
	Excluded ^a	230	10.5
	Total	2191	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.896	.896	11

Item Statistics

	Mean	Std. Deviation	N
When talking about participants of open online courses, I refer to WE rather than THEY	2.82	.754	1961
I feel comfortable interacting with other online course participants	2.88	.671	1961
I feel an obligation to assist fellow online course participants when they ask for help	2.69	.725	1961
I'm not just an individual learner; I'm part of a cohort	2.51	.745	1961
The success of other online course participants makes me feel good	2.85	.696	1961
The relationships I have with other online course participants are very rewarding	2.42	.740	1961
When participating in an open online course, I feel a strong connection to other participants	2.29	.767	1961
I feel like part of a learning community with open online courses	2.77	.767	1961
I like helping other open online course participants achieve their learning goals	2.72	.758	1961
By participating in open online courses, I can influence others	2.41	.766	1961
I interact more with fellow participants of open online courses than I do with the course content	1.76	.732	1961

Inter-Item Correlation Matrix

	When talking about participants of open online courses, I refer to WE rather than THEY	I feel comfortable interacting with other online course participants	I feel an obligation to assist fellow online course participants when they ask for help	I'm not just an individual learner; I'm part of a cohort	The success of other online course participants makes me feel good	The relationships I have with other online course participants are very rewarding	When participating in an open online course, I feel a strong connection to other participants	I feel like part of a learning community with open online courses	I like helping other open online course participants achieve their learning goals	By participating in open online courses, I can influence others	I interact more with fellow participants of open online courses than I do with the course content
When talking about participants of open online courses, I refer to WE rather than THEY	1.000	.335	.349	.424	.374	.378	.386	.398	.322	.274	.243
I feel comfortable interacting with other online course participants	.335	1.000	.470	.442	.400	.501	.469	.442	.506	.393	.329
I feel an obligation to assist fellow online course participants when they ask for help	.349	.470	1.000	.459	.464	.479	.410	.398	.544	.345	.292
I'm not just an individual learner; I'm part of a cohort	.424	.442	.459	1.000	.515	.553	.478	.489	.456	.410	.352
The success of other online course participants makes me feel good	.374	.400	.464	.515	1.000	.514	.440	.442	.461	.411	.314
The relationships I have with other online course participants are very rewarding	.378	.501	.479	.553	.514	1.000	.562	.528	.526	.491	.449
When participating in an open online course, I feel a strong connection to other participants	.386	.469	.410	.478	.440	.562	1.000	.689	.557	.481	.470
I feel like part of a learning community with open online courses	.398	.442	.398	.489	.442	.528	.689	1.000	.564	.468	.359
I like helping other open online course participants achieve their learning goals	.322	.506	.544	.456	.461	.526	.557	.564	1.000	.540	.430
By participating in open online courses, I can influence others	.274	.393	.345	.410	.411	.491	.481	.468	.540	1.000	.418
I interact more with fellow participants of open online courses than I do with the course content	.243	.329	.292	.352	.314	.449	.470	.359	.430	.418	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.440	.243	.689	.446	2.831	.007	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
When talking about participants of open online courses, I refer to WE rather than THEY	25.28	27.985	.485	.264	.895
I feel comfortable interacting with other online course participants	25.21	27.683	.607	.387	.888
I feel an obligation to assist fellow online course participants when they ask for help	25.41	27.390	.594	.413	.889
I'm not just an individual learner; I'm part of a cohort	25.58	26.838	.652	.450	.886
The success of other online course participants makes me feel good	25.25	27.456	.615	.403	.888
The relationships I have with other online course participants are very rewarding	25.68	26.433	.715	.522	.882
When participating in an open online course, I feel a strong connection to other participants	25.81	26.244	.711	.579	.882
I feel like part of a learning community with open online courses	25.33	26.432	.686	.555	.883
I like helping other open online course participants achieve their learning goals	25.38	26.371	.704	.539	.882
By participating in open online courses, I can influence others	25.69	27.061	.600	.397	.889
I interact more with fellow participants of open online courses than I do with the course content	26.34	27.921	.513	.310	.894

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
28.10	32.423	5.694	11

Principle component analysis

Correlation Matrix

	When participating in an open online course, I feel a strong connection to other participants	I feel like part of a learning community with open online courses	I like helping other open online course participants achieve their learning goals	By participating in open online courses, I can influence others	I interact more with fellow participants of open online courses than I do with the course content	When talking about participants of open online courses, I refer to WE rather than THEY	I feel comfortable interacting with other online course participants	I feel an obligation to assist fellow online participants when they ask for help	I'm not just an individual learner; I'm part of a cohort	The success of other online course participants makes me feel good	The relationships I have with other online course participants are very rewarding
When participating in an open online course, I feel a strong connection to other participants	1.000	.687	.563	.484	.470	.388	.456	.408	.473	.443	.574
I feel like part of a learning community with open online courses	.687	1.000	.562	.466	.359	.393	.433	.400	.488	.449	.537
I like helping other open online course participants achieve their learning goals	.563	.562	1.000	.544	.432	.321	.500	.535	.457	.463	.528
By participating in open online courses, I can influence others	.484	.466	.544	1.000	.416	.277	.381	.338	.400	.406	.488
I interact more with fellow participants of open online courses than I do with the course content	.470	.359	.432	.416	1.000	.244	.312	.285	.345	.309	.448
When talking about participants of open online courses, I refer to WE rather than THEY	.388	.393	.321	.277	.244	1.000	.328	.352	.416	.374	.382
I feel comfortable interacting with other online course participants	.456	.433	.500	.381	.312	.328	1.000	.467	.431	.384	.491
I feel an obligation to assist fellow online course participants when they ask for help	.408	.400	.535	.338	.285	.352	.467	1.000	.451	.464	.480
I'm not just an individual learner; I'm part of a cohort	.473	.488	.457	.400	.345	.416	.431	.451	1.000	.511	.559
The success of other online course participants makes me feel good	.443	.449	.463	.406	.309	.374	.384	.464	.511	1.000	.519
The relationships I have with other online course participants are very rewarding	.574	.537	.528	.488	.448	.382	.491	.480	.559	.519	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.931
Bartlett's Test of Sphericity	Approx. Chi-Square	9488.346
	df	55
	Sig.	.000

Communalities

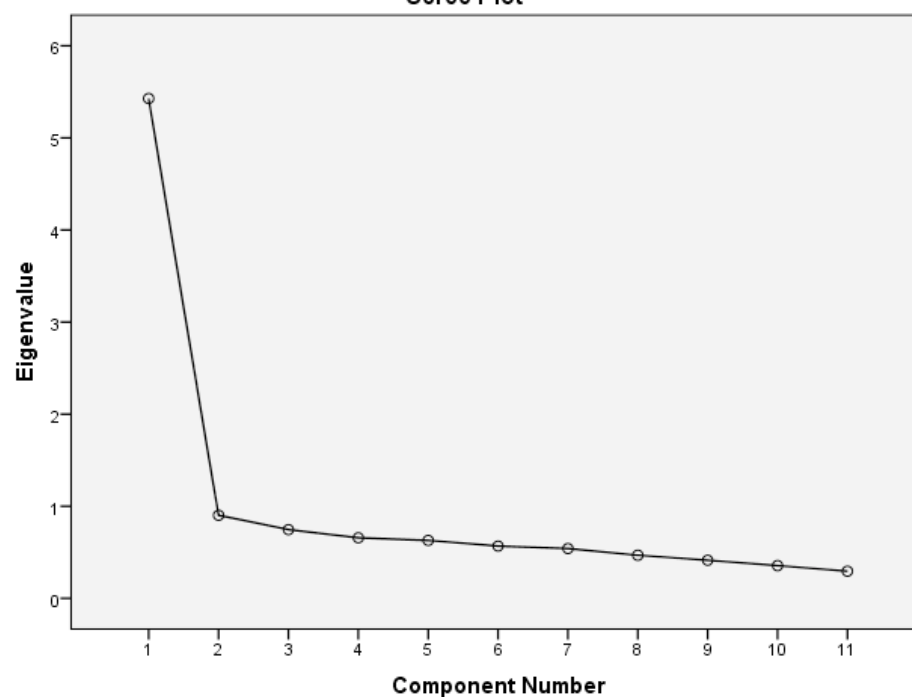
	Initial	Extraction
When participating in an open online course, I feel a strong connection to other participants	1.000	.611
I feel like part of a learning community with open online courses	1.000	.577
I like helping other open online course participants achieve their learning goals	1.000	.600
By participating in open online courses, I can influence others	1.000	.456
I interact more with fellow participants of open online courses than I do with the course content	1.000	.347
When talking about participants of open online courses, I refer to WE rather than THEY	1.000	.318
I feel comfortable interacting with other online course participants	1.000	.452
I feel an obligation to assist fellow online course participants when they ask for help	1.000	.450
I'm not just an individual learner; I'm part of a cohort	1.000	.519
The success of other online course participants makes me feel good	1.000	.477
The relationships I have with other online course participants are very rewarding	1.000	.621

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.427	49.340	49.340	5.427	49.340	49.340
2	.902	8.197	57.537			
3	.746	6.782	64.319			
4	.657	5.970	70.289			
5	.629	5.717	76.006			
6	.568	5.160	81.166			
7	.540	4.913	86.079			
8	.468	4.253	90.332			
9	.414	3.762	94.094			
10	.355	3.225	97.320			
11	.295	2.680	100.000			

Extraction Method: Principal Component Analysis.

Scree Plot

Component Matrix^a

	Component 1
The relationships I have with other online course participants are very rewarding	.788
When participating in an open online course, I feel a strong connection to other participants	.781
I like helping other open online course participants achieve their learning goals	.775
I feel like part of a learning community with open online courses	.760
I'm not just an individual learner; I'm part of a cohort	.720
The success of other online course participants makes me feel good	.691
By participating in open online courses, I can influence others	.675
I feel comfortable interacting with other online course participants	.672
I feel an obligation to assist fellow online course participants when they ask for help	.671
I interact more with fellow participants of open online courses than I do with the course content	.589
When talking about participants of open online courses, I refer to WE rather than THEY	.564

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

X. MORE QUOTES FOR LACK OF AFFILIATION WITH THE MOOC MOVEMENT

Lack of investment beyond personal learning needs

- ‘I am alone, there is nobody else. It’s one to one learning.’
- ‘Never got a membership card.’
- ‘MOOC is an instrument for improving knowledge, not a community.’
- ‘I enrol in MOOCs only for personal enjoyment.’
- ‘I am an individual learner.’
- ‘I do my own thing.’
- ‘I only take classes; I don’t actively promote MOOCs.’
- ‘I’m not actually helping spread the idea.’
- ‘I’m more an individual learner and don’t use the interactive functions of the MOOCs as strongly as others seem to do.’
- ‘I consider myself a learner, but I don’t think I contribute enough back to the movement – in terms of being active on forums, actively recommending courses to colleagues.’
- ‘I do the course, interact when I have something to say about the course but no more.’
- ‘I study for myself not to be part of any kind of movement.’
- ‘I’m here to learn, not to be “saved” etc.’
- ‘I feel that I dip in and out. If a course interests me I will participate. If not I will pursue education elsewhere.’
- ‘To me, the learning in itself is a lot more important than the MOOC; taking the MOOC is just a way to facilitate my learning, and I’d still be learning things (though possibly different things) if I didn’t know MOOCs existed.’
- ‘We all chase our own goals and dreams individually.’
- ‘I’m in this for my personal learning, not as part of a group.’
- ‘I just enjoy learning, I’m not promoting anything.’
- ‘I share my experience with my real life friends but I don’t advocate for people to jump on the MOOC train.’
- ‘I am a participant not an activist.’
- ‘I don’t spruik the platform.’
- ‘I’m not really helping it along as a movement. I just like the courses.’

- 'While I appreciate what the MOOC has accomplished...I do not view myself as an activist.'
- 'I participate as a student, but I don't evangelise...yet.'
- 'I only see the MOOCs as...personal enjoyment and so far I haven't found a course that would make a REAL difference in my career, so I still don't see myself as a member of this community.'
- 'I am just enjoying distance learning as an individual.'
- 'I study for my own satisfaction, not for others.'
- 'Am just a learner, movement or no movement. I will continue to be, even when MOOC is not there.'
- 'I focus on me, and I'm not interested in being part of a movement or ideology.'
- 'I don't feel strongly enough about it to become an advocate.'
- 'I'm just learning something that I find interesting, I'm not part of some movement.'
- 'I'm just a learner. I love learning, I love studying. Anything else does not concern me. I'm just taking advantage of this convenient key to knowledge.'
- 'I am not participating in the development, promotion or creation of MOOC courses. I may stop using MOOCs if I get bored.'
- 'I'm just someone who happens to be doing something slightly trendy for once.'

Anti-social tendencies

- 'Other than the forums, I have interaction with just ONE other MOOC student who is a colleague of mine and no intention to be part of anything.'
- 'I don't participate very much in debates and talk with others.'
- 'I don't feel that I am part of a group of people.'
- 'I don't do a lot of forum participation.'
- 'I haven't written anything in the forums, and don't participate in discussions.'
- 'I'm just a sideliner participant.'
- 'I'm a bystander enjoying the fruits of the movement.'
- 'I don't interact at all with most of the other participants in the course I am taking.'
- 'I use MOOCs to further my learning not my social life.'
- 'I don't like to belong to any movement. I am my own person.'
- 'I prefer individual learning.'

- ‘I don’t identify myself with MOOC. It’s only a small and very independent part of my life. I don’t feel the need to be part of a group.’
- ‘I’m not participative in forums and discussions with others students as I barely have time to comb through the lectures and quizzes.’
- ‘I don’t feel “connected” to a particular group. I participate in classes as an individual. Membership in a “MOOC group” is not really integral to my personal identity. It’s another thing that I do. Thirty years ago, I might have taken correspondence classes or spent tonnes of time at the library reading books. Now, I have MOOCs to play with.’
- ‘While I do sometimes interact with others in the course. For the most part I’m a solitary learner. I don’t participate a lot in the forums that the courses provide and in only one course have I ever participated outside the forums.’
- ‘Although I participate in many MOOCs, I don’t really interact with my fellow students. I just study as a loner, so I am not so active to the movement.’

XI. MORE QUOTES FOR AFFILIATION WITH THE MOOC MOVEMENT

Identification with movement as a product of participation in MOOCs

- ‘I’m in my first course; however, I already feel part of this movement.’
- ‘Since the first course I enrolled in, I [have been] part of it.’
- ‘Each individual enrolled and active in a platform like courser is an agent of global social change. The education is tailored to suit individual needs and is creating a silent social impact.’
- ‘By actively participating in MOOCs, I am part of their community and view myself as part of their movement.’
- ‘Everyone who participates in MOOCs is part of it.’
- ‘Well, I’m taking courses aren’t I?’
- ‘I am involved and I believe in its future.’
- ‘I, as a course participant, feel myself to be part of the MOOC movement.’
- ‘I guess every MOOC student can be considered and consider his/her self to be part of the MOOC movement.’
- ‘Because I participate, criticise, praise, advise, and encourage.’
- ‘I enrol in courses and I am sure that qualifies anyone to be part of the movement.’
- ‘Since I’m taking courses now, and I plan to take many more in the future, I feel like part of the movement by supporting its efforts.’
- ‘By taking multiple online course I feel as if I have contributed to the movement.’
- ‘By taking online courses, I support the movement and help to improve it in every action I have on the MOOC platform.’
- ‘I am convinced of the MOOC movement. I am part of it after taking so many courses.’
- ‘Because I am on to my sixth course already and have signed up for two more next month. It has made me push my own learning boundaries.’
- ‘Everyone who participates in the online courses plays a part, however small that may be, in the MOOC movement.’
- ‘If there is a movement, then I do feel part of it just for having done so many courses over the past few years.’
- ‘25 courses in 18 months!’
- ‘I’m part of the surge of student interest that has followed MOOCs.’

- 'I'm taking MOOC classes and I live a block away from a university.'
- 'If there is a movement and you are participating in any form, you are by definition part of it – not to the extent that the educators are, but they would not be doing what they were doing if not for simple participants such as myself.'
- 'My mere taking MOOC courses attests to my being part of this movement.'
- 'I have already taken over two dozen courses from different providers in a variety of languages, so I feel fairly committed.'

Identification with movement due to active promotion of MOOCs to others

- 'I support MOOCs by taking courses. I support MOOCs by encouraging others to participate.'
- 'I take, publicise and recommend MOOCs to others.'
- 'I advocate them within my sphere of influence and I've been instrumental in getting tired, traditional corporate education interested in them.'
- 'I am actively promoting them (e.g. talking about them to everybody I know and giving public speeches).'
- 'I tell everyone about it.'
- 'I openly promote MOOCs, discuss what I have done with friends and encourage others to give it a try.'
- 'I am a strong advocate in my friends and my company.'
- 'I am a pioneer of MOOCs.'
- 'I am an activist.'
- 'I recommend MOOCs to many people and speak in favour of the movement.'
- 'I am taking the courses, I will continually take the courses, and I am introducing the concept to my friends, students and family.'
- 'I'm a walking, talking advertisement for such classes.'
- 'I tell everyone I know about MOOCs and try to encourage them to join me!'
- 'I promote MOOC courses amongst friends and work mates.'
- 'I've been telling my friends about MOOCs. I think this is the future of learning when anywhere and learn a subject from any university. The student does not have to worry about relocating to attend a university and can pick and choose any course from any university. And it's free!'
- 'I openly promote MOOCs, discuss what I have done with friends and encourage others to give it a try.'

- ‘I have enthusiastically broadcast MOOCs to everyone I know in many countries.’
- ‘I have become an advocate for MOOCs because I am an advocate for lifelong learning. There is always something new to learn and MOOCs offer more people a chance to do so, even just for fun!’
- ‘Considering the time spent on them! And the personal benefit and pleasure I get. Plus I’m talking about MOOCs around me.’
- ‘I try to spread the word to whoever I think would try a MOOC.’
- ‘I watch for the newest listings so that I can be part of it. I also find myself sharing the information with others to encourage them to join.’
- ‘I am an avid participant and something of an evangelist – always recommending courses to others!’
- ‘I am aware I am part of an experiment on MOOCs. And I am proud of whatever contribution I can give.’
- ‘I communicate with some fellow participants in more than one course. I have taken several courses and have influenced others to take courses.’
- ‘I often encourage friends and relatives to try out MOOCs and really hope to see the MOOC trend continue into broader and deeper topics and to gain wider recognition.’
- ‘I try very hard to inform people about open online education and to give them the opportunity to learn so many things for free.’
- ‘I’m trying to tell my friends about this option, and encourage them to take the time and participate in it, as it’s going to give them benefits.’

Agreement with the idea and execution of MOOCs to expand access to education

- ‘The free exchange of knowledge is all we have as humanity to save us from destroying ourselves.’
- ‘MOOCs will change the world.’
- ‘It has changed the way I perceive education.’
- ‘I’m a participant in MOOCs, and a proponent of distance education at all levels as well as free quality education.’
- ‘I firmly believe in the corruption of higher education institutions (tuition prices, exclusivity, peddling degrees for people who don’t actually need them or can’t use them) and that high-quality education should be available to people who really want to learn, regardless of their socioeconomic status.’
- ‘Because I think education should be accessible to everyone, and not because it is free doesn’t mean that it has low standard or value because I believe these courses are given by people who know their field very well and are very generous to share their knowledge with others.’
- ‘Because I believe that everyone who wants to learn should be able to.’

- 'I believe in the need to make education far more cost-effective, to make excellent education available more widely, and to incorporate technological advances into education.'
- 'I promote the concept of information, and educational opportunity, of being a basic human right.'
- 'I like the MOOC concept and want to change higher education for the benefit of all.'
- 'It is the future of learning.'
- 'I believe in it. I am excited to be here!'
- 'I truly believe that MOOCs will change the way higher education will be delivered and will enable a much larger proportion of the community to participate in life-long learning.'
- 'In the past, online courses meant "low quality, irresponsible to students, waste of time and money, can't learn real stuff" to me based on my experiences with online courses. After being introduced to MOOCs by my friend, I quickly fell in love with it and feel rewarded every day.'
- 'I believe and hope it can bring a fine education to more people and thus give more people an opportunity to develop themselves.'
- 'I am committed to education and provision of learning opportunities for older people, and MOOC is a powerful vehicle for the provision of learning opportunities for older people who may be handicapped and unable to attend any form of tuition.'
- 'I feel every word of knowledge should reach the person desperate to assimilate it.'
- 'I am very heartened by the quality of the instructors and staff and the courses they provide to those who might otherwise not have access. This can change the world for better.'

XII. COMPLETE CORRELATION MATRIX FOR IDENTIFICATION WITH THE MOOC MOVEMENT

		Age	Sex	Qualification	Country of residence	Employment status	Perceived educational value	Perceived employment value	Perceived personal value	Identification as a MOOC user	Sense of connection	Sense of empowerment	Identification with the MOOC movement
Age	Pearson Correlation Sig. (2-tailed)	1	-.056	.288**	.298**	.102	-.177**	-.121*	-.077*	-.086**	.068**	-.048	.079**
Sex	N	1441	1426	.036	.000	.000	.000	.000	.004	.001	.010	.067	.003
	Pearson Correlation Sig. (2-tailed)	-.056	1	-.080*	.061	-.084*	-.057	.011	-.048	.046	-.092	.012	-.020
	N	.036	.000	.003	.022	.002	.032	.687	.069	.085	.000	.660	.453
Qualification	Pearson Correlation Sig. (2-tailed)	.288**	-.080*	1	.075	.268*	-.015	-.027	-.009	-.001	-.049	-.099	.032
	N	.000	.003	.000	.005	.000	.575	.316	.749	.974	.063	.000	.234
Country of residence	Pearson Correlation Sig. (2-tailed)	.298**	.061	.075*	1	.076*	-.192**	-.027	-.102*	-.017	-.136**	-.125*	-.032
	N	.000	.022	.005	.000	.004	.000	.310	.000	.526	.000	.000	.228
Employment status	Pearson Correlation Sig. (2-tailed)	.102	-.084*	.268**	.076*	1	-.061	-.011	.028	.024	.001	-.002	.025
	N	.000	.002	.000	.004	.000	.023	.689	.294	.357	.975	.948	.338
Perceived educational value	Pearson Correlation Sig. (2-tailed)	-.177**	-.057	-.015	-.192**	-.061	1	.219*	.056	.008	.046	.067	.005
	N	.000	.032	.000	.000	.023	.000	.000	.035	.746	.079	.011	.855
Perceived employment value	Pearson Correlation Sig. (2-tailed)	.121*	.011	-.027	-.027	.004	.219	1	-.057	-.037	-.051	-.128	-.048
	N	.000	.687	.316	.310	.689	.000	.000	.030	.165	.054	.000	.072
Perceived personal value	Pearson Correlation Sig. (2-tailed)	-.077	-.048	-.009	-.102*	.028	.056	-.057	1	.020	.032	-.001	.007
	N	.004	.069	.749	.000	.294	.035	.030	.453	.453	.221	.979	.802
Identification as a MOOC user	Pearson Correlation Sig. (2-tailed)	-.086*	.046	-.001	-.017	.024	.008	-.037	.020	1	.120*	.146*	.095*
	N	.001	.085	.974	.526	.357	.746	.165	.453		.000	.000	.000
Sense of connection	Pearson Correlation Sig. (2-tailed)	.068**	-.092	-.049	-.136**	.001	.046	-.051	.032	.120*	1	.612*	.207*
	N	.010	.000	.063	.000	.975	.079	.054	.221	.000	.000	.000	.000
Sense of empowerment	Pearson Correlation Sig. (2-tailed)	-.048	.012	-.099**	-.125*	-.002	.067	-.128*	-.001	.146*	.612*	1	.205*
	N	.1438	.1431	.1423	.1448	.1419	.1453	.1431	.1451	.1465	.1465	.1465	.1457
Identification with the MOOC movement	Pearson Correlation Sig. (2-tailed)	.079**	-.020	.032	-.032	.025	.005	-.048	.007	.095*	.207*	.205*	1
	N	.003	.453	.234	.228	.338	.855	.072	.802	.000	.000	.000	.000
	N	1434	1427	1418	1444	1414	1447	1425	1446	1460	1460	1457	1460

*, Correlation is significant at the 0.05 level (2-tailed).

**, Correlation is significant at the 0.01 level (2-tailed).