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**Do MOOCs encourage corporate social responsibility or are they simply a marketing opportunity?**

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**Abstract**
This paper explores institutional drivers for developing MOOCs by juxtaposing them against the original drivers for generating MOOCs: to offer open access education. However, the original impetus for MOOC development may be shifting towards a business oriented model. Therefore, instead of contributing to corporate social responsibility and inclusivity agendas facilitating open access to education, MOOCs are akin to an institution's shop window allowing the pseudo 'purchaser' the opportunity to glimpse behind the scenes. Hence, we ask: are MOOCs merely a sophisticated form of window dressing, showing pseudo 'purchasers' what institutions want them to see enticing them to purchase more lucrative products? A snap shot of the literature highlighted; though laudable for institutions to address inequalities, by providing free access to education, MOOCs are not necessarily reaching the socially deprived due to: poverty, cultural restrictions, inadequate infrastructure, difficulties in sourcing the necessary hard and software required to access the internet. Notwithstanding the motivation for institutions developing MOOCs participants must first be able to access them. Hence, the paper examines what MOOCs offer those participants likely to access them and concludes by examining how MOOCs can be developed to facilitate better completion rates and encourage wider participation from hard to access groups.

**Highlights**

1.  The following debate highlights MOOCs are a relatively new way of delivering education and as such their value to education as a whole still unproven.
2.  The potential value MOOCs might offer education students and organisations is also explored.

3. The challenges MOOCs present in terms of developing meaningful assessments that are not a burden on the organisation while opening up access to education for all members of the global society are also examined.

**Introduction**

Massive open online courses (MOOCs) are a relatively new phenomenon in education with their footprint taking hold from 2008 onwards. According to Chattopadhyay (2014) - MOOCs differ from online courses given they focus on context rather than the content of learning; facilitate completely open access, and are free to the end user. Moreover MOOCs facilitate massive rather than limited participation and are 'signed up to' on a voluntary basis so that learners form a community of learning rather than being part of a defined cohort, or an independent learner. In addition, MOOCs focus on the learning process rather than being driven by evaluation and accreditation and are built on the principles of 'just in time learning' (Chattopadhyay 2014, Universitat Autònoma de Barcelona 2017). In other words, students access materials on demand when they need to know something or they need to develop a particular skill set.

Since the emergence of MOOCs, an increasing number of organisations have chosen to offer them as part of their educational portfolio. Originally, aimed at opening up education to provide free access to university level instruction for as many students as possible, MOOCs embraced two key principles namely to: provide open access to education and demonstrate scalability or what can also be referred to as connectivism (Yuan *et al* 2013). In addition, MOOCs have been used to enable universities, in particular Massachusetts Institute of Technology (MIT) and Harvard, to better understand how students learn and how technology based education both on and off campus could be enhanced (Yuan *et al* 2013). Principally, however, institutions use MOOCs as a means of addressing their marketing, and globalisation agendas (Chadaj *et al* 2014). Some institutions use MOOCs as a way of contributing to their corporate social responsibility (CSR) and social inclusion endeavours; particularly those who want to engage in more philanthropic enterprises (Rhoads *et al* 2014). As part of such an agenda, institutions see it as their mission to increase their capacity to compete in tertiary educations' global arena through the acquisition, adaptation, and creation of advanced knowledge (Salmi 2009). Acquisition of advanced knowledge should not however, be the sole domain of an institution, but an embedded part of its student/customer engagement so that its status can be endorsed via global acknowledgement and not simply via a process of self-aggrandisement. As the impact of MOOCs broadens, scholars of the health and social care disciplines are increasingly being encouraged to meet their continuing professional development needs via the introduction of MOOCs (Liyanagunawardena & Williams 2014) related to subjects such as: dementia care (University of Tasmania), Parkinson's disease (University of Birmingham), Drugs and Drug Addiction (Kings College London) and the challenges of global poverty (MIT).

**Aim and Objectives of the Paper**

The aim of the paper was to explore the value of MOOCs by examining what they are, what they are not, their ultimate aim and the value MOOCs serve to participants and organisations. Hence as part of the main objective for this debate it is intended to explore whether MOOCs achieve their own aim(s) by examining the evidence supporting their continued use in education. In addition the paper considered the ways in which the uptake/access to MOOCs

can be enhanced as part of higher education's commitment to promote social inclusion (Wakefield et al 2017).

**Search Strategy**
Given the dearth of literature outlining the contribution of MOOCs to the corporate social responsibility and social inclusion agendas of Higher Education Institutes (HEIs), the literature has been obtained largely from a wider internet search. The latter was supplemented via reference searching and accession of policy papers, rather than via the more usual dedicated database search route. The reason for the adoption of the latter strategy emanated from the fact that no relevant hits were generated via the database searching portal. In addition, the data obtained as part of the literature search was also drawn from the wider educational context not solely from nursing health and social care as MOOC based education cuts across all educational disciplines both nationally and globally.

**Snapshot of the Findings from the MOOC Based Literature to Date**
According to Zhenghao *et al* (2015) a MOOC's capacity to empower participants works in two ways: enabling participants to gain some form of career benefit such as promotion, a new job or the skills to set up a new business; and/or to seek out education or derive educational benefit such as attaining the necessary prerequisites to take on further learning as part of a formal qualification. Arguably MOOCs could be considered the shop window of an organisation allowing learners to experience what an organisation has to offer before they decide to take up accredited forms of study. However, given their novel status in the educational marketplace, it is important to look at what MOOCs have to offer in more detail and therefore it is intended to examine what conclusions have been drawn to date regarding the multiplicity of roles MOOCs can play as novel educational tools/learning platforms.

**MOOC Related Research**
Liyanagunawardena *et al* (2014a) reviewed 45 papers related to MOOCs as part of a systematic review of all literature published from 2008-2012 and found research studies tended to focus on: what MOOCs were; the opportunities and threats they posed to educational establishments; educational theory, technology and pedagogy, together with participant and provider focused themes. However, no definitive conclusions were derived from the review as the topics addressed by the papers were too diverse with many of the papers based on case studies of MOOCs the researchers themselves had developed. The latter is a considerable weakness of the respective papers forming part of the review; the papers could not be directly compared with each other and were not objective as there were clear conflicts of interest when the researchers were studying their own educational innovations. Hence, a major limitation of the review was not only related to the notion of subjectivity but also the heterogeneity of the actual papers reviewed as they would not necessarily be considered robust forms of evidence in accordance with the evidence hierarchy (Evans 2003, Muir Gray 1997). Nevertheless, to achieve a high quality systematic review with robust findings a critical mass of good quality research would be required, which at present does not exist (Gasevic *et al* 2014).

Notwithstanding the heterogeneity of papers, as indicated above, some trends regarding MOOCs were divinable from the studies; namely that learners formed communities or learning networks, from which they derived increased confidence as a consequence of learning from and with each other, empowering and enabling them to move *en masse* to other MOOCs (Liyanagunawardena *et al* 2014a). Consequently in another review of MOOCs, related to healthcare education, Liyanagunawardena & Williams (2014) suggest they are a useful means of providing continuing professional development. One significant learning point from Liyanagunawardena *et al's* (2014a) more generic review of MOOCs, concerns the need for educators to consider how they 'teach' MOOC students to acquire the necessary skills to engage in effective MOOC style education as it is different from classroom learning and traditional online endeavours.

## Learner Motivation

To move the debate on further, Gasevic *et al's* (2014) analysis of the Gates Foundation MOOC Research Initiative (MRI) found much of this work focused on exploring learner motivation for engaging in MOOC based learning. However, a major finding in this review was that many researchers focused their attention on exploring student completion and attrition rates (Jordan 2015a; Koller *et al* 2013). Interestingly, Milligan *et al* (2013) identified that motivational forces driving students to engage in MOOC based education influenced whether or not they completed the full learning package (Phan *et al* 2016). These motivational factors included: the desire to achieve an academic credential at reduced cost, personal enrichment, and/or self-satisfaction, curiosity about MOOCs and a desire to engage in education as part of a large group, drawn from across the globe (Hew & Cheung 2014). Paradoxically, others have argued the converse indicating the underpinning rationale for why learners engage in MOOCs is still not fully understood (Gasevic *et al* 2014). Nevertheless, MOOCs continue to proliferate and in some educational establishments they are starting to be accepted as partial credit towards a degree qualification with a prediction that full degree accredited curricula will become available via MOOCs in the future. This would have a major impact on institutional business models (Mazoue 2014) and raises the question of whether MOOCs function solely as a marketing tool by acting as a 'shop window' to an organisation or whether they perform a 'window dressing' role by hiding what really lies beneath the surface.

## Completion and Attrition Rates

Notwithstanding the reasons why organisations offer MOOCs and students engage with them, their proliferation in the market place continues. One thing is certain however, MOOCs vary in quality and with it the professionalism they demonstrate in terms of production features and level of sophistication (Billsberry 2013). Despite the diverse quality of these new educational tools and programmes, the InCharge Education Foundation (ICEF) website, reported MOOC enrolment surpassed 35 million participants in 2015 with 4,200 MOOCs currently offered by over 500 universities worldwide (ICEF 2016).

Regardless of the high level of enrolment, completion rates for MOOCs rarely attain numbers greater than 10% (Kizilcec *et al* 2013; Marcus 2013), with the best completion rate reported

in 2013 as 60% for an Introduction to Project Management MOOC offered by the Ecole Centrale de Lille (Jordan 2015a).  However, high completion rates for MOOCs appear not to be related to the specialist or elite status of an institution.   Instead, completion rates seem to be directly related to the topic area(s) and their relevance to learners' individual needs given that MOOCs addressing writing for the web, financial planning, astrology, teaching adult learners, strategic management, sports and recreation management, introduction to nursing and health care and understanding dementia recorded the highest respective completion rates in 2013 averaging 20-35% (Jordan 2015a).  In 2014, the completion rates reported by Jordan (2015a) seemed to wane with figures reverting back to those nearer 10% with two notable exceptions; a MOOC related to computer programming and one exploring internet security both of which achieved 32.2% and 27.4% completions respectively.  Furthermore, in an updated version of her data Jordan (2015b) countered that completion rates tended to be driven by start date: with more recent courses having higher completions, course length - short courses being the most popular, and assessment type with courses that adopted automatic grading demonstrating higher completions.

**Shop Window, Window Shopping or Window Dressing?**
MOOCs are typically offered as short courses, which generally do not lead to participants attaining a formal qualification.  This may be one reason why so many people do not complete the 'course' although the short nature of MOOCs has been cited as a reason for individuals enrolling onto them in the first place (Jordan 2015b).  Nevertheless, MOOCs can also be used to attract to the organisation (in a virtual sense) those students who might never have had the opportunity or qualifications to access such an institution via any other means; implying that organisations are widening their definition of inclusivity (Dacey 2014).  More detailed analysis of enrolment figures, however, runs counter to this argument of assumed social inclusivity as it has been found that most MOOC participants are well educated, young, employed individuals (Jordan 2014, Selingo 2014).  Furthermore, relatively few participants have been shown to come from the African or Asian continents (Liyanagunawardena, *et al*., 2014a, Miller & Odersky 2013) a finding, which refutes the suggestion that MOOCs contribute to the CSR agenda and adds weight to the window dressing hypothesis (Lin 2010).  Moreover, if individuals are to be able to use/access MOOCs they simultaneously require access to a guaranteed stable electricity source, an internet bandwidth that supports the downloading of course materials, and, more importantly access to the necessary hardware, capable of logging on to the internet in the first place (Bhandari 2014). These factors run counter to the inclusivity/diversity agenda (Auyeung 2015).

For inclusivity to be an all-encompassing component of a MOOC several factors need to be brought into stark relief.  For example, in addition to participants having access to the necessary hardware, internet and a reliable electricity source, the materials themselves also need to embrace the inclusivity agenda (Navarrete & Lujan-Mora 2017).  Hence, MOOCs need to present data in a manner that is accessible anywhere in the world by anyone who chooses to access the materials (Hollands & Tirthali 2014) irrespective of any disability the person may present with (Navarrete & Lujan-Mora 2017).  Looking at the titles of MOOCs

offered on various platforms it is evident that most are hosted in English or where they are not they are presented in the language of the authors' host country. However, persons accessing the materials may not be a native speaker of the language the MOOC is delivered in, and for this reason MOOCs need to present data in small chunks that can be easily downloaded so learners can digest and review the content at a later point or at a slower pace offline particularly if the language of the MOOC is not their mother tongue or access to the internet is intermittent and/or unreliable (Liyanagunawardena *et al* 2014b). However, downloading of videos may be expensive and prohibitive in some countries such as China or for those who are in low resource settings (Holland & Tirthali 2014) rendering the materials exclusive rather than inclusive (Longstaff 2014).

Moreover, providing a glossary of terms is also deemed to enhance inclusivity as it enables participants to look up words that are new, unfamiliar or specific to the topic; enriching, enhancing and facilitating offline learning (Hew 2016, Marrone *et al* 2013). Likewise, presenting participants with a summary of the content, outlining what they need to know to engage effectively with the material and what they would be expected to learn as part of the MOOC is also seen as embracing inclusivity as part of the Universal Instructional Design (UID) process (Hew 2016, Marrone *et al* 2013). Arguably MOOCs also need to embrace principles for good learning; namely they need to: encourage reflection, facilitate dialogue, foster collaboration, apply theoretical knowledge to practice, create a community of peers, enable creativity and motivate learners (Conole 2014a).

**Shop Window or Window Shopping?**
If all of the above considerations are taken into account when developing and delivering MOOCs it could be argued they do act like a shop window giving would-be participants a 'taster' of the types of learning that take place on established, fee-entry programmes. Hence, it could be argued that MOOCs allow the purchaser an opportunity to see inside an organisation through marketing the outcome rather than being focused solely on securing increased market income (Conole 2014b). If the focus of a MOOC was directed towards marketing the outcome, then it could be proffered that good practices showcased to the external world via the MOOC would mirror those exhibited internally. Under these circumstances MOOCs could be very powerful marketing/advertising tools demonstrating the quality of education an organisation offers to its internal student body (Chadaj *et al* 2014; White *et al* 2015). In this context, both purchasers and passers-by (the non-completers) who might only superficially engage with the materials in the first instance might be drawn into the 'shop' to take a closer look. Nevertheless, no-one shops at all the available venues, and some will pass by without lingering long enough to purchase or take a closer look at what is on offer, only stopping long enough to window shop. Although passers-by might only window shop, they still gain limited insight into what is lurking behind the window in the process. Likewise, although passers-by may never actively shop, if the window remains open, informative, enticing and welcoming to all who look, irrespective of whether they can or want to invest more time inside at that point they can always return at a later date in the knowledge they will not be turned away. Thus, by keeping the window open passers-by are able to go back to the shop when the material it offers provides them with the means to fulfil

an unmet need, be it, psychological, personal or educational (Stevens 2014) and in this way the notion of inclusivity and CSR can truly be embraced. Hence, perhaps rather than focusing on completion rates the number of hits a MOOC receives is more indicative of the role it can play in addressing CSR agendas.

The notion of CSR encompasses an organisation's desire to: provide assistance to in-need individuals, contribute monetarily and in kind to the community in a way that is supportive of an organisation's vision and goals, while trying to address community development, health and wellness, human rights, and philanthropic endeavours. Arguably, the above features of CSR mirror the original philosophical drivers for the development of MOOCs namely to give open access to educational opportunities free of charge (Rhoads *et al* 2014, Yuan *et al* 2013). Nevertheless, some might argue such drivers have been replaced by business models designed only to entice students into an organisation. However, maybe it is time to take a boarder view of CSR and consider that those participating in MOOCs can gain much from simply looking or even engaging in a discussion with someone from another continent or country who might have a similar interest in a particular topic (Schulzke 2014)

**Shop Window or Window Dressing?**
Nevertheless, one could ask: can MOOCs ever be truly likened to the shop window of an organisation showcasing what it is capable of offering or are they merely window dressing fripperies specifically designed to entice individuals to 'purchase' more lucrative products in the form of formal degree qualifications without first engaging in deeper organisational scrutiny (Lin 2010)? If the latter were to be the case it could be argued that organisations use window dressing techniques to disguise their true intentions to enhance their reputation and impact in the market place. Furthermore, it could be asked: are organisations genuinely interested in advancing the knowledge economy for the betterment of society in an increasingly global arena over painting a picture of the organisation that will enhance its image in the market place? Hollands & Tirthali, (2014 p8) would contend not, following their assessment of how MOOC goals are being achieved and at what cost; proffering *'universities are falling far short of "democratizing" education and may, for now, be doing more to increase gaps in access to education than to diminish them.'*

A major task for MOOC providers, therefore, is to address how to overcome the challenge of meaningfully accessing hard to reach audiences. If organisations are serious about social inclusivity and contributing to the CSR agenda something needs to be done to enable the young, unemployed less well educated as well as those in more remote areas of the world to be able to access education offered in any location. Currently the USA and UK are the most highly represented countries on MOOC platforms such as Coursera and FutureLearn with significantly fewer participants from low resource settings (Chardaj *et al* 2014). For example Breslow *et al* (2013) found that of the 58,013 participants enrolling on the *Circuits and Electronics 1: Basic Circuit Analysis MOOC* at MIT; 34,763 came from the US or UK, 22,628 from India, Columbia and Spain with only 622 coming from China. Hence, true social inclusion is hampered by infrastructure, IT literacy, and barriers caused by internet download speeds as well as political and language barriers.

Although MOOCs have the potential to present students with high quality information, without the necessary infrastructure they are unable to reach those who need education the most, to offer them social capital and social mobility (Liyanagunawardena *et al* 2014b). Language and cultural sensitivity barriers hamper engagement in MOOCs by those in low resource settings (Liyanagunawardena *et al* 2014b). As indicated earlier, most MOOCs are in English; however, most residing in low resource settings do not have English as a first or even second language.  Hence, while such participants may be able communicate in English they may not be able to engage in fast paced discussions quickly enough; may misinterpret humour for insult, not fully understand the colloquial language being used or they may interpret forceful academic debate as rudeness (Liyanagunawardena *et al* 2014b, Mak *et al* 2010).  Yet, where infrastructure issues are not a hindrance MOOCs have the potential to access marginalised groups, for example women or those living in secluded communities who may not be given open access to education (Bhatta 2012).

**How to Enhance Engagement and Completion Rates**
If organisations are truly trying to better society via mass education programmes they need to improve MOOC completion rates - or do they?  MOOCs tend only to be considered 'worthwhile' when participants conceptualise how the content is going to benefit them as individuals (Fischer 2016). Hence the usefulness of the task to achieving a personal goal, whatever that might be, is a vital ingredient for ensuring MOOCs are deemed a meaningful enterprise.  Moreover, participants are more likely to engage with the course if it is 2-8 weeks long, anymore and participation starts to wane (Sachdeva *et al* 2015).  Likewise, how the materials are presented and the level of interactivity of the MOOC also impacts on participant engagement.  For example, gamification strategies are now seen as one way to enhance user involvement via the introduction of '*leader boards to turn courses into points based games*' helping to achieve greater participation as the education is then perceived more like a leisure activity (Sachdeva *et al* 2015 p.307). Hence, courses can introduce an element of competition and fun into their delivery modes to make the Y generation more likely to take part in MOOCs.

Nevertheless, it has been suggested that rather than looking at completion rates as markers of success, a MOOC should perhaps be conceptualised as the 21st Century's version of a textbook (Fischer 2016).  In this event, it could be argued that individuals are not expected to read the whole textbook from cover to cover.  Hence, if MOOCs are viewed in this way, participants should not be expected to complete all elements of the MOOC either.   Perhaps a more pertinent debate concerns the way that completion rates are considered.  Normally classes are not larger than 500-1000; however, in very extreme cases MOOC based 'classes, can number tens of thousands in participants at the outset so a completion rate of 10% far outstrips any that could be achieved in a face-to-face classroom environment.  Consequently perhaps different metrics related to quality and achievement need to be developed to enable educators to have more realistic expectations of those engaging in MOOCs and how they interact with the materials.  The latter point is especially important given that many of those that sign up to MOOCs are not wanting to gain a degree qualification but to learn something

that is of particular interest to them personally, professionally, or socially (Fischer 2016). Thus, by designing MOOCs that address the key considerations outlined below student engagement could potentially be enhanced and enable MOOC developers to retain greater numbers of students.

**Key Considerations for those Designing MOOCs**

- Build opportunities for student engagement facilitating development of a community of learning.
- Design ways of encouraging student engagement in early sessions or before people 'sign up'
- Outline how to use the MOOC so learning opportunities are enhanced.
- Understand students' motivation to be involved in the MOOC.
- Target motivational enhancement strategies at the outset by giving positive reinforcement for task completion.
- Consider ways of adding value and rewarding MOOC participation.
- Build in good educational practice making content reflective and creative.
- Avoid bandwidth intensive materials.
- Consider ways to widen participation by dividing learning into small, easy to understand chunks so that they are accessible by those whose first language is not English.
- Include a glossary of terms in supporting materials.
- Know the cultural context of participants where possible and provide transcripts to support participant's understanding.

**Conclusion**

MOOCs have been likened to the new form of textbook where students dip in and out of the materials as and when they want. For institutions, MOOCs offer an opportunity to market their wares enticing students to look closer and possibly consider taking up more formalised types of study. For some institutions MOOCs also provide a platform for addressing their corporate social responsibility agenda. However, the extent to which this can be fulfilled depends on the manner in which the MOOC is constructed in the first place. A snap shot of the literature generated to date has highlighted that although it is laudable for institutions to purport to be addressing educational inequalities, by providing free access to education, MOOCs are still not necessarily reaching the socially deprived due to poverty, lack of technological infrastructure, inadequate access to the necessary hard and software to support access to the internet and cultural restrictions. Hence, if institutions are to become truly philanthropic in their desire to offer open access education to the disadvantaged in society they still have a long way to go before they are truly reaching those that perhaps need education the most. We have, therefore, suggested some ways in which MOOC completion rates could be increased and greater widening of participation achieved, thereby increasing their potential to contribute to institutions' corporate social responsibility agendas as opposed to representing a very sophisticated marketing tool.

**References**

Auyeung, V., 2015. Review: To MOOC or not to MOOC: Issues to consider for would-be MOOC academic leads. *Higher Education Research Network Journal*, 9, pp.64-71.

Bhandari R., 2014 IIE Blog Opening Minds What Role Can MOOCs Play in the Development Agenda? Five Key Questions Institute of International Education (IIE) Opening Minds to the World Retrieved from https://www.iie.org/en/Learn/Blog/2014-July-What-Role-Can-Moocs-Play-In-The-Development-Agenda-Five-Key-Questions

Bhatta, N., 2012. Citizenship and Cast based Discrimination a Study of Dalit Communities: Case studies from Western Napal. Bachelor of Social Services Thesis, Diaconia University of Applied Sciences, Finland. Retrieved from http://www.theseus.fi/bitstream/handle/10024/48482/The%20Final%20Edited%20Thesis.pdf?sequence=1

Billsberry, J., 2013. MOOCs: Fad or revolution. *Journal of Management Education*, *37* (6), pp.739-746. DOI: 10.1177/1052562913509226

Breslow, L., Pritchard, D.E., DeBoer, J., Stump, G.S., Ho, A.D. & Seaton, D.T., 2013. Studying learning in the worldwide classroom: Research into edX's first MOOC. *Research & Practice in Assessment*, 8 13-25. Retrieved from http://www.rpajournal.com/dev/wp-content/uploads/2013/05/SF2_Pre10_6_13.pdf

Chadaj, M., Allison, C. & Baxter, G., 2014, October. MOOCs with attitudes: Insights from a practitioner based investigation. In *2014 IEEE Frontiers in Education Conference (FIE) Proceedings* (pp. 1-9). IEEE.

Chattopadhyay S 2014, ID and Other Reflections: On emergent organization designs, future of work, and the impact of the digital era. 11 Differences between a MOOC and an Online Course Thursday, June 26, 2014. Retrieved from http://idreflections.blogspot.co.uk/2014/06/11-differences-between-mooc-and-online.html

Conole, G., 2014a. The 7Cs of Learning Design—A new approach to rethinking design practice. *In Proceedings of the 9th International Conference on Networked Learning* (pp. 502-509). Edinburgh: University of Edinburgh.

Conole, G., 2014b. A new classification schema for MOOCs. *The international journal for Innovation and Quality in Learning*, *2*(3), pp.65-77.

Dacey, J., 2014. The MOOC point. *Physics World*, *27*(03), p.43. Retrieved from http://iopscience.iop.org/article/10.1088/2058-7058/27/03/39/pdf

Evans, D., 2003. Hierarchy of evidence: a framework for ranking evidence evaluating healthcare interventions. *Journal of clinical nursing*, 12(1), pp.77-84.

Fischer, G., 2016. MOOCs as components of rich landscapes of learning. Retrieved from http://www.portlandpresspublishing.com/sites/default/files/Editorial/Wenner/PPL_Wenner_Ch04.pdf

Gasevic, D., Kovanovic, V., Joksimovic, S. & Siemens, G., 2014. Where is research on massive open online courses headed? A data analysis of the MOOC Research Initiative. *The International Review of Research in Open and Distributed Learning*, *15*(5). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1954/3111

Hew, K.F., 2016. Promoting engagement in online courses: What strategies can we learn from three highly rated MOOCS. *British Journal of Educational Technology*, *47*(2), pp.320-341. DOI10.1111/bjet.
Hew, K.F. & Cheung, W.S., 2014. Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review*, *12*, pp.45-58.

Hollands, F.M. & Tirthali, D., 2014. MOOCs: Expectations and Reality. Full report. *Online Submission*. Retrieved from http://files.eric.ed.gov/fulltext/ED547237.pdf

InCharge Education Foundation (ICEF) 2016 ICEF Monitor MOOC enrolment surpassed 35 million in 2015 Retrieved from http://monitor.icef.com/2016/01/mooc-enrolment-surpassed-35-million-in-2015/

Jordan, K., 2014. Initial trends in enrolment and completion of massive open online courses. *The International Review of Research in Open and Distributed Learning*, *15*(1). DOI: http://dx.doi.org/10.19173/irrodl.v15i1.1651

Jordan, K. 2015a. MOOC completion rates: The data. Retrieved from http://www.katyjordan.com/MOOCproject.html

Jordan, K., 2015b. Massive open online course completion rates revisited: Assessment, length and attrition. *The International Review of Research in Open and Distributed Learning*, *16*(3). DOI: http://dx.doi.org/10.19173/irrodl.v16i3.2112

Kizilcec, R. F., Piech, C., & Schneider, E. 2013. *Deconstructing disengagement: Analyzing learner subpopulations in massive open online courses* (LAK conference presentation). Retrieved from http://www.stanford.edu/~cpiech/bio/papers/deconstructingDisengagement.pdf

Koller, D., Ng, A., Do, C., & Chen, Z. 2013. Retention and intention in massive open online courses: In depth. Educause Review, 48(3), 62–63. Retrieved from https://er.educause.edu/~/media/files/article-downloads/erm1337.pdf

Lin, L.W., 2010. Corporate social responsibility in China: Window dressing or structural change. *Berkeley Journal of International Law.*, *28*, p.64. http://dx.doi.org/doi:10.15779/Z38F35Q

Liyanagunawardena, T.R., Adams, A.A. & Williams, S.A., 2014a. MOOCs: A systematic study of the published literature 2008-2012. *Distance Education in China*, *3*, pp.5-16. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1455/2602

Liyanagunawardena, T.R. & Williams, S.A., 2014. Massive open online courses on health and medicine: review. *Journal of medical Internet research*, *16*(8), p.e191. Retrieved from http://www.jmir.org/article/viewFile/jmir_v16i8e191/2.html

Liyanagunawardena, T., Williams, S. & Adams, A., 2014b. The impact and reach of MOOCs: a developing countries' perspective. *eLearning Papers*, (33). Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.422.4148&rep=rep1&type=pdf

Longstaff, E., 2014. The prehistory of MOOCs: Inclusive and exclusive access in the cyclical evolution of Higher Education. *Journal of Organisational Transformation & Social Change*, 11(3), pp.164-184.

Mak, S., Williams, R. & Mackness, J., 2010. Blogs and forums as communication and learning tools in a MOOC. Retrieved from: http://www.networkedlearningconference.org.uk/past/nlc2010/abstracts/PDFs/Mak.pdf

Marcus, J. 2013, September 12. All hail MOOCs! Just don't ask if they actually work. *Time*. Retrieved from http://nation.time.com/2013/09/12/all-hail-moocs-just-dont-ask-if-they-actually-work/

Marrone, M., Mantai, L. & Luzia, K., 2013. MOOCs-what's cultural inclusion got to do with it? *Electric Dreams. Macquairie University Sydney*. Proceedings ascilite 2013 Sydney. (pp.541-545) Retrieved from http://www.ascilite.org/conferences/sydney13/program/papers/Marrone.pdf

Mazoue, J.G., 2014. *The MOOC model: Challenging traditional education*. Retrieved from http://er.dut.ac.za/bitstream/handle/123456789/71/Mazoue_2013_The_MOOC_Model_Challenging_Traditional_Education.pdf?sequence=1&isAllowed=y

Miller, H., & Odersky, M., (2013). Functional Programming Principles in Scala: Impressions and Statistics. Retrieved from http://docs.scala-lang.org/news/functionalprogramming-principles-in-scala-impressions-and-statistics.html

Milligan, C., Littlejohn, A. and Margaryan, A., 2013. Patterns of engagement in connectivist MOOCs. *MERLOT Journal of Online Learning and Teaching*, 9(2).

Muir Gray J.A., 1997. *Evidence-Based Healthcare*. Churchill Livingstone, New York.

Navarrete, R. & Luján-Mora, S., 2017. Bridging the accessibility gap in Open Educational Resources. *Universal Access in the Information Society*, pp.1-20. Advanced Online Publication DOI: 10.1007/s10209-017-0529-9

Phan, T., McNeil, S.G. and Robin, B.R., 2016. Students' patterns of engagement and course performance in a Massive Open Online Course. *Computers & Education*, *95*, pp.36-44.

Rhoads, R.A., Li, S. & Ilano, L., 2014. The Global Quest to Build World-Class Universities: Toward a Social Justice Agenda. *New Directions for Higher Education*, *2014* (168), pp.27-39. DOI: 10.1002/he.20111

Sachdeva, A., Singh, P.K. & Sharma, A., 2015, October. MOOCs: A comprehensive study to highlight its strengths and weaknesses. In *MOOCs, Innovation and Technology in Education (MITE), 2015 IEEE 3rd International Conference on* (pp. 365-370). DOI: 10.1109/MITE.2015.7375346

Salmi, J. 2009. *The challenge of establishing world-class universities*. Washington, DC: The World Bank.

Schulzke E., 2014 Measuring the impact of a MOOC course can be complicated Aug. 19, 2014 5:45 a.m. Deseret Digital Media. Retrieved from:
http://www.deseretnews.com/article/865609046/Measuring-the-impact-of-a-MOOC-course-can-be-complicated.html

Selingo, J.J., 2014. *MOOC U: Who is getting the most out of online education and why*. Simon and Schuster

Stevens, V., 2014. The Elephants in the Fire Hoses. *TESL-EJ*, *17*(4), p.n4.

Universitat Autònoma de Barcelona 2017 Differences between a MOOC and an online course
http://www.uab.cat/web/study-abroad/mooc/differences-between-a-mooc-and-an-online-course-1345668290741.html
Wakefield A, Cartney P, Christie J, Smyth R, Cooke A, Jones T, King E, White H & Kennedy J 2017 MOOCs and Corporate Social Responsibility – An Opportunity for Inclusion or Simply Window  Dressing in the Marketplace? Paper presented at the Nurse Education Today Conference September 2017 Cambridge UK
https://www.heacademy.ac.uk/system/files/hub/download/d1st4s1_ann_wakefield.pdf

White, S., Leon Urrutia, M. & White, S., 2015. MOOCs inside universities: an analysis of MOOC discourse as represented in HE magazines. Retrieved from
http://eprints.soton.ac.uk/373981/1/CSEDU_2015_final.pdf

Yuan, L., Powell, S. & Centre for Educational Technology Interoperability Standards J., 2013. MOOCs and open education: Implications for higher education. Retrieved from
http://publications.cetis.org.uk/wp-content/uploads/2013/03/MOOCs-and-Open-Education.pdf

Zhenghao, C., Alcorn, B., Christensen, G., Eriksson, N., Koller, D. & Emanuel, E.J., 2015. Who's benefiting from MOOCs, and why. *Harvard Business Review*, *22*.