



Developing world MOOCs: A curriculum view of the MOOC landscape  
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**Abstract:** MOOCs offer opportunities but are also pose the danger of further exacerbating existing educational divisions and deepening the homogeneity of global knowledge systems. Like many universities globally, South African university leaders and those responsible for course, curriculum, and learning technology development are coming to grips with the implications and possibilities of online and open education for their own institutions. What opportunities do they offer to universities, especially from the point of view of research-focused campus-based institutions which have not yet engaged with MOOCs and have little history with online courses? Given the complexities of the MOOC-scape, this paper provides a means for contextualising the options within an institutional landscape of educational provision as possibilities for MOOC creation, use and adaptation. This takes into account what is currently available and identifies what new opportunities can be explored. Refining this further, a categorisation of existing MOOCs is provided that maps to broad institutional interests. The notion of courses offered by universities as being either primarily ‘inward’ or

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'outward' facing is explained. Five categories of MOOCs are described: Category One, Teaching Showcase; Category Two, Gateway Skills; Category Three, Graduate Skills; Category Four, Professional Skills and Category Five, Research Showcase. These are elaborated on and examples provided. This taxonomy provides a nuanced way of understanding MOOCs and MOOC type courses in order for educators to strategically prioritise and decision makers to support the full gamut of emergent opportunities.

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## Introduction

Developing countries face challenges both in addressing educational problems and in showcasing their accomplishments. As education problems are always mediated by historical and social contexts, South African universities, like all others, face localised and specific problems - the South African Higher Education sector can be characterised as a low participation, high attrition system. There is a huge attrition rate, with 40% of first-year students leaving university across the system (Letseka & Maile, 2008), and successful completion is a critical concern especially when parsed by the race categories of the apartheid past, which show participation rates of over 50% for white students and only 13% for African students (Fisher & Scott, 2011). Indeed, only 5% of African youth succeed in any form of higher education (*ibid*). The *White Paper for Post School Education and Training* (DHET, 2013) links access tightly to the possibility of success, inferring that there is no point in increasing access without seriously improving chances of success. At the same time, there is an emphasis on ensuring that the country finds ways to cater to the needs of the millions of adults and youth who are unemployed, poorly educated and not studying (p.20).

The worldwide trends in the expansion of Higher Education are amplified in Africa, where the student population tripled from 2.7 million in 1991 to 9.3 million in 2006. A projection suggests that the entire continent will have between 18 million and 20 million students by 2015 (World Bank, 2010). At the same time there has been serious government underfunding of Higher Education with a concomitant expansion of private education providers. Many of the for-profit private institutions have targeted the high-end lucrative business and professionally-oriented educational markets. As a result, traditional public universities are being outcompeted with respect to some high-paying courses and programmes that the public institutions could use to augment their income-earning capacity (Jegede, 2012). Providing reasonably priced, good quality education under resource-constrained conditions is the challenge in Africa, as elsewhere.

In this environment MOOCs and online education inevitably are being considered as possible strategies for addressing local challenges. This need to respond may be particularly acute for the more established research universities who are active participants in global university networks, while at the same time confronting local social and economic imperatives. The South African Higher Education sector has only one dedicated distance education provider (albeit one of the world's largest with over 300,000 students) and next to no experience of online education. In addition,

connectivity and bandwidth limitations have been serious constraints: only 17.4% of the population are Internet users (according to <http://www.internetworldstats.com/stats1.htm>). The situation in universities is much better, as South African universities now have enough uncongested bandwidth, with most having the Gigabit speed now typical of European universities. (Greaves pers. comm, 2014, See <http://graphs.tenet.ac.za> and <http://www.terena.org/publications/files/TERENA-Compendium-2013.pdf>).

Like many universities globally, South African university leaders and those responsible for course, curriculum and learning technology development are coming to grips with the implications and possibilities of online and open education for their own institutions. Fortunately, and despite journalistic assertions to the contrary, MOOCs did not arrive newly imagined and perfectly formed in 2012 when the *New York Times* declared it “the year of the MOOC” (Pappano, 2012). The first MOOC recorded came into existence in 2008 (an open boundary course, *Connectivism and Connective Knowledge*); more importantly, there has been solid research and robust online professional experience education for the last twenty years, all of which can be drawn on in the present (see Bates, 2012 for an expansion of this point).

We have a particular interest in how the MOOC landscape is formed given the threat that the current shape of the system poses to a heterogeneous diversified global knowledge system. With free courses offered by providers in the global north and taken up on every continent (Olds, 2013) there is a danger of the current hegemony of western knowledge systems being further entrenched across the world. The core-to-periphery guise of the current MOOC system is unacceptable, as is the cynical view of the global south as a solution to the crisis of Higher Education in the global north (Sharpe, 2013). Of particular concern is that most MOOC platforms and courses (with some exceptions) are designed for consumption rather than adaptation, with most being available only under full copyright; most also demand that they keep the copyright in user-generated content and some even specify that this would include commercial rights. Thus local context-specific content would be out of the hands of its creators (Cheverie, 2013, Czerniewicz and Naidoo, 2013).

We are mindful too that the MOOC space is a contested one where discourses of the global village and the global marketplace are being enacted in new forms. We align ourselves with those for whom MOOCs do offer an opportunity to grow a ‘global village’ through the building of global academic communities, emphatically those developed for fair terms of engagement and respect for local contexts. We believe that the many MOOC offerings in existence do provide such opportunities for universities in the global south and indeed those outside of the power nodes of the geographically redistributed knowledge society (even within the global north). Accordingly, we believe that universities everywhere should be seriously considering developing and offering their own MOOCs, asserting their epistemologies and local content into the open online sphere.

Now that the euphoria and hype has died down, we share the dawning realisation that “MOOCs will eventually occupy a small but important niche as an alternative form of non-formal, continuing and open education” (Bates, 2014). MOOCs in themselves are unlikely to ‘solve’ any of the problems of Higher Education in the developing world (Popenici, 2014; Altback, 2013). Research shows how poorly MOOCs serve those most in need (Straumsheim, 2013; Hollands & Tirthali, 2014). As most

MOOCs presently provide no clear route to lower cost degrees, they remain in the less constrained non-formal education space. However, with increasing demand to find ways of creating financial sustainability there has been a flurry of activity to establish recognised alternative qualifications (such as Coursera's Signature Track, edX's verified Certificate of Achievement, FutureLearn's Statement of Accomplishment) which nudges them into the grey area between the non-formal and the formal.

This paper suggests how to make sense of and plan for this niche, especially from the point of view of a research-focussed campus-based institution. Although we are located in a developing country, we believe that we offer a general lens and a way of assessing the challenges and opportunities posed by MOOCs for institutions, especially for those that have not been early adopters. Given the complexities of the MOOC-scape, we provide a means for contextualising the options within an institutional landscape of educational provision as possibilities for MOOC creation, use and adaptation. This takes into account what is currently available and identifies what new opportunities can be explored. Refining this further, we categorise existing MOOCs that map to broad institutional interests, taking into account our particular context and institutional priorities. These categories enable imagining the types of courses that would fit into an institutional landscape of educational provision. Finally, we consider how universities which have not yet engaged with MOOCs can take advantage of the opportunities of emerging forms of online learning with appropriate local responses.

### **Course and curriculum landscape**

Academics and decision makers in campus-based universities find themselves having to develop strategies for engaging with MOOCs, perhaps under pressure from platform providers or from university leadership. Unlike "the strategies of institutions secure in reputations of international significance" the responses of non-elite institutions will differ as they do not have "reputational capital to depend upon" (Marshall, 2013). How should institutions that are not early adopters or have the comfort of large endowments respond to engagement with MOOCs? We suggest that having a way of understanding the broad ecosystem which MOOCs are part of would be a useful first step towards attaining a state of readiness for strategic engagement.

### **Inside and Outward Facing Courses**

We introduce the notion of courses offered by universities as being either primarily 'inward' or 'outward' facing. To all but enrolled students, most university courses' content, pedagogy and specifics are invisible. When academics produce MOOCs which are based on existing courses, they create a public glimpse of their regular classes – albeit in a more glamourised and condensed form. In the regular 'inward' facing course, the enrolled students are paying for access to the entire university learning experience including the educational support of librarians, tutors, individual consultations, writing centres, curriculum advisors and others. Experiments with MOOCs are potentially changing this traditional position by including various forms of participation from interested 'outsiders' not enrolled in the course. An example of this phenomenon is the

'open boundary course' whereby both formally enrolled students and outsiders study the course together – although with different levels of educational support. Thus, the development of these hybrid models has enabled making some existing online courses more visible to outsiders who are interested in the course but for whatever reason not currently interested in being or able to be a registered student. As MOOCs become a more established model of delivering a form of online learning, some courses in a university develop to become more or less inward or outwards facing, with the cloud-hosted MOOCs (such as those offered on Coursera) representing the furthestmost to the right on the 'outward' continuum as shown in Figure 1, and the ones on the left representing the traditional campus based courses.

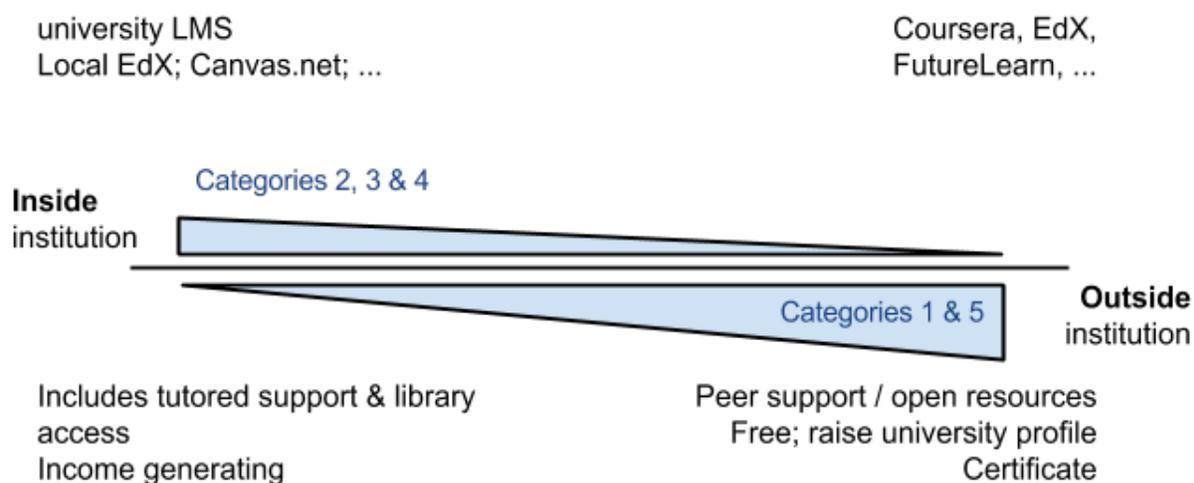


Figure 1: Continuum of course provision offered by an institution from inward to outward facing courses.

Figure 1 shows the potential overlaps with MOOCs and existing online courses and other forms of flexible provision. The breadth of courses a university provides has therefore expanded along this 'inward-outward continuum' inviting greater experimentation in modes of delivery, entry requirements, assessment practices and flexible provision.

Conceivably an outward-facing MOOC could be adapted for paying students or be 'wrapped' within another course to serve enrolled students. A distinction can then be made between courses that are part of degree programmes and those that are not. A second less clear distinction can be made between courses hosted largely within the institution focused inwards on providing for existing registered students and those courses which are more outward focused courses where participants have little or no connection to the institution. This is a continuum and would include open boundary courses where existing credit-bearing courses are made available freely to other students while they are running, wrapped courses where for credit courses are 'wrapped around' other courses which exist in MOOC format, distributed flip courses where MOOC materials are used in blended on-campus courses (Stanford, 2014) and nested courses within a "Meta-MOOC" (Davidson, 2014) where a number of similar

courses, at different institutions, are run simultaneously with each other, and simultaneously with a common MOOC.

## Course & curriculum landscape

	Conventional	↔	Flexible
<b>Curriculum integration</b>			
<b>Formal</b>			
Credit, towards a formal degree, tightly <u>curriculated</u>	Lectures	May or may not be online	Block release Or online
<b>Semi-formal</b>			
Stand alone, often not part of a degree may or may not be credit bearing	Short courses		Online
<b>Non-formal</b>			
No credit, not formal curriculum alignment	Summer school		Online

MOOCs, SPOCs, DOCs etc are in this space, not susceptible to formal curriculum requirements & government regulations

Figure 2: Landscape of Higher Education provision

While there is a range of educational offerings by the traditional campus-based institutions – incorporating professional development, distance education, extra-mural provision and recently, partnerships with external providers – there remain some key distinguishing characteristics of types of provision, which we believe help institutions understand and make decisions about how to engage with the choices about MOOCs. We call this a ‘landscape of educational provision’. This landscape, as shown in Figure 2, can be roughly divided into three bands, namely, ‘formal’, ‘semi-formal’ and ‘non-formal’, although these should be treated as conceptual, not absolute, divisions represented here to assist with a mental mapping exercise.

Courses in the formal education domain have strict prerequisites and credentialing requirements through their control of access, progression, and assessment. This is true for credit-bearing courses across the spectrum of classroom-based, flexible delivery and online formats. Here we distinguish MOOCs and associated courses from these formal online credit-bearing courses. It is possible that a conventional course can become a hybrid blended course or open-boundaried course, whereby the same formal course can be opened out to non-registered students if delivered in an online format – something that had previously seemed unimaginable.

However, while the same course may exist in two domains, the boundary between the two is not porous from the student perspective. Non-registered students in an open boundary course do not acquire any formal credit or have access to the library, even though they may cover the same content and assessments.

While retaining some of the features of formal education, semi-formal courses are less bounded or constrained. Semi-formal courses encompass those supporting a formal qualification, which students may be encouraged to take, but typically these are not credit bearing or part of the formal curriculum. Examples include stand-alone skills modules, developmental courses to prepare students and optional enrichment courses. The duration may be shorter or outside term time. The types of assessment and the entry or exit requirements may be very different from formal courses. A number of emerging MOOCs for college preparation are located in this semi-formal space. Personal development and lifelong learning courses are an established feature of Higher Education. An example is a summer school offering courses at an entry undergraduate level, aimed at the general public and 'leisure learners'. This liberated academic space has enabled MOOCs to flourish whereby it is tolerable to envisage forms of learning requiring no formal entry or integration with full degree curricula, offering informal assessment, all at no cost to participants.

Conventional MOOCs are more naturally located in the semi-formal and non-formal domains, although they may influence pedagogical innovation in the formal domain. While MOOCs do not in themselves replace pathways of courses that lead to a degree, there are opportunities to move or re-offer courses in MOOC format in the semi-formal and non-formal domains. Making decisions to re-locate, re-purpose or offer courses in more than one domain is an opportunity for universities to meet various goals that may include reaching out to learners outside of the student body or conversely serve the needs of their own student body better.

### **MOOC categories**

The term MOOC in the literature may refer to a very diverse range of courses in form, purpose and degree of openness. We adopted a broadened definition of MOOCs to encompass a variety of types of online courses that are being offered with varying degrees of massiveness and openness. The binary distinction between xMOOCs and cMOOCs (Yuan, Powell & Olivier, 2014), while informing the historical origins, is largely superficial (Conole, 2013). Proposed taxonomies for MOOCs have typically been based on a design and learning form perspective intended to inform developers rather than users with little cognisance of institutional context (Conole, 2013; Clark, 2013; Rosselle, Caron & Heutte, 2014).

We have developed a purpose-focused categorisation of MOOCs that is informed by the institutional rationale, participant interest, and local context. These categories helped us establish which forms of courses would suit particular types of MOOCs offerings, allowing for the inclusion of real contextual examples. Individual institutions developing MOOCs would have additional criteria that overlay these categories. For instance, our institution is seeking to address the paucity of African-generated content in the international MOOC provision and the overall lack of

developing country input as well as considering endemic needs such as specific types of learning problems linked with poor graduation rates and success.

The table below identifies the five categories we identify for our specific institutional context with illustrative examples of exemplary MOOCs. Category One (teaching showcase) and Category Five (research showcase) are primarily outward-facing MOOCs as they project what the institution does and can offer to anyone interested in these topics, thus describing the conventional MOOC types showcasing expertise and specialisms aimed at a wide but still general audience. The three other categories are more inward-focused in that there is greater alignment with study programmes within the institution. Here MOOCs are envisaged supporting prospective students with transitioning disjunctures between levels of study, such as school to university; undergraduate to postgraduate; world of work to research-type of study, and professional to academic environments. These MOOC categories are intended to help improve student success at university and are grouped around three key transitional spaces: Category Two, undergraduate level 'gateway skills'; Category Three, postgraduate level 'graduate literacies'; and Category Four, workplace 'professional skills'. Specific MOOCs could be targeting several distinct audiences and would then fall into multiple categories. We also recognise there may be additional MOOC categories, which while not of interest in our context, are being developed by other types of institutions, one such being what we describe as 'advocacy' MOOCs, those linked to public campaigns in, for example, poverty relief, public health and financial independence that could be initiated by the United Nations or World Bank.

### **Category One - teaching showcase**

Category One (teaching showcase) MOOCs typically offer courses on stimulating and accessible topics which rely on the popular appeal of the individual academic presenter. These include the very large and high-profile MOOCs discussed in the popular media and offered on platforms like Coursera. Category one courses are sometimes referred to as 'rock star' MOOCs since they draw large numbers of participants and the presenters have in some cases developed cult-followings. They appeal to a general audience on topics with the maximum exposure as might form a part of an introductory university course. An example is Coursera's largest course to date presented by Scott Plous of Wesleyan University, with 259,969 participants studying social psychology (Daphne Koller, 2014). Other illustrative examples include the University of Pennsylvania's Modern & Contemporary American poetry and Duke University's Introduction to Astronomy.

Category	Description	Current Examples
<b>Category One: teaching showcase</b>	Exemplified by general-interest high-profile courses in which an institution's teaching is showcased, raising the appeal of the institution as a place of learning. These courses tend to be personality-led with engaging subject matter. These match the popular understanding of MOOCs.	Gamification [Coursera]  Modern & Contemporary American Poetry [Coursera]
<b>Category Two: gateway skills (undergraduate)</b>	Includes courses that help in providing foundational or enhancement skills that perspective students could take prior to entering a study programme. These assist in making prospective students aware of expectations and opportunities as well as developing necessary skills to study further. Typically these supplement campus-based teaching. Embedded assumptions about student needs mean that these tend to be of local interest, within an institution or country.	Introduction to Mathematical Thinking [Coursera]  Preparing for Uni [FutureLearn]
<b>Category Three: graduate literacies (postgraduate)</b>	Focuses on students starting postgraduate level study. Postgraduate literacies includes supporting proposal writing, research methods, statistical analysis and other domain-specific skills needed by students. These include MOOCs of both global interest and locally focused.	Science Writing [Coursera]  Research Methods [Coursera]
<b>Category Four: professional skills</b>	Covers courses targeting vocational skills, professional certification and professional development. This may help showcase an institution's professional programmes but are generally intended to prepare students for a certification or qualification with another organisation or professional body. These are likely to be of local interest, although some specialised topics may draw globally audiences.	Reservoir GeoMechanics  [Stanford OpenEdX]  Medicine Adherence  [FutureLearn]
<b>Category Five: research showcase</b>	Exemplified by specialised in-depth courses in which an institution's research is showcased, raising the appeal of the institution as a centre of excellence. These courses are introductory to a field but assume some prior knowledge the topics. They typically cater for people with widely varying interest and prior experience to have a broader appeal.	Global Warming Science  [edX]

Table 1: MOOC categories and examples

### **Category Five - research showcase**

Category Five (research showcase) MOOCs promote an institution's research areas or specialisms. These can introduce participants to an institution's research laboratory and share research findings and thinking in ways traditional research dissemination cannot. Enrolment may be lower than a Category One MOOC, yet the impact on the institutions' research profile and capacity for attracting postgraduate students may be significant. Examples in our context could include courses which focus on research into wildlife conservation strategies, infectious diseases, urban development or food security. These courses appeal to participants with university degrees or who have a specialist interest in a topic. They are keen to understand how research is conducted, seeing the context and accessing information. As with Category One, these are outward-facing and non-formal courses in the sense that participants are not entering or studying at the institution. Courses in this category meet the institution's need to raise its research profile. Participants may be more likely to consider further study, join research communities and use certification to promote their careers. Opportunities could arise for some of these courses to be offered as a small private online course (SPOC) with the potential to generate income.

### **Category Two - gateway skills**

Category Two (gateway skills) MOOCs intend to prepare prospective students prior to university entry in selecting specialisation programmes once admitted or for developing skills needed by undergraduate students. In contrast to Categories One and Five above, this and the following categories are more inward-focused towards supporting needs identified within an institution and thus generally targeting prospective or current students. Examples include developing "induction and preparation programmes" for prospective university entrants (Marshall, 2013) and supporting students to "conquer the gatekeeping courses" (Cormier, 2013). Universities already have various interventions to enhance the teaching of non-core, supplementary courses by reducing the reliance on large class lecture-based teaching in favour of more interactive online modes. There thus might be possibilities for cross-institutional development and the wrapping of these MOOCs to extend their use. In our context, such MOOCs would only be one strategy for addressing educational disadvantage; they are not the solution.

### **Category Three - graduate literacies**

Category Three (graduate literacies) MOOCs support students entering postgraduate studies. These students are in need of support with research orientation, writing practices, and the development of specialist skills. There is a high demand for more flexible forms of postgraduate study, especially for those in fulltime employment. Individual support for students by their supervisors is understandably limited. Students entering postgraduate study typically are familiar with the expectations of study, thus they are often prepared for self-directed learning in MOOCs. Here MOOC-type courses are generally supplementary rather than substitutes for formal credit-bearing degree

courses. In our context, there is a need to increase the numbers of Master's and Doctorates (DHET, 2013) and MOOCs are already being used to support small groups of these students. Our institution also attracts students from other African countries, and MOOCs provide one mechanism for both attracting and orientating prospective postgraduates, easing transitions between different educational systems and from work-based to research-based styles of research.

#### **Category Four - professional skills**

Category Four (professional skills) MOOCs are intended for working professionals who need to upskill or specialise further. Universities have a long history of offering professional and vocational skills in response to national economic development priorities. These can generate a third-income stream, to supplement student fees and reduce reliance on government subsidies. Professional development courses are increasingly offered as online courses, and the expectations of students is for flexibility. Some MOOC providers are focussing heavily on this market, as seen in Udacity's pivot towards vocational education and training followed by its decision to partner with industry to develop models of workplace education. Udacity's original goal was to provide free online education to a wider audience (Haber, 2013).

Category Four courses fall into the semi-formal landscape and provide a porous engagement with the mainstream, potentially offering certification opportunities within the semi-formal band, possibly in conjunction with professional organisations or industry. In our context, where there is growing demand for such qualifications, MOOCs could fulfil very useful functions. For a novice market, MOOCs may be able to provide a taster function – offering corporate skills development professionals the opportunity to experiment with the online learning spaces before committing to any financial investment. The 'try-out' potentially benefits both the learners (who are able to test whether they have the aptitude and appetite for further learning online) and the institution which can use the MOOC as an advertisement for more in-depth fee-based courses.

#### **MOOC categories and the curriculum landscape**

Considering where the various MOOC categories are located within the existing landscape of Higher Education provision allows distinctions with other course formats to be articulated and then to imagine how these could be re-located or re-purposed. This may mean shifting the purpose and audience of MOOCs and other courses to allow for more flexible delivery as they are moved into the semi-formal or even non-formal domains. It is conceivable that some courses may exist across more than one domain – and already, the MOOC models have evolved in this direction, with the emergence of small private online courses (SPOCs) which reuse the MOOC material and run parallel with flipped classroom support for fee-paying students. There may be some friction involved in moving courses across this landscape, such as student perceptions of the validity of an open boundary course or the value of qualifications achieved in a formal domain if the same course is offered in a semi-formal format (Marshall, 2013). It may

simply not be feasible to run some courses online or in multiple domains because of the nature of the course or the work involved. The diagram below plots some possible MOOCs according to categories and indicative MOOCs (for illustration purposes) that may be appropriate for our institution.

Unsurprisingly, given the high stakes around failure and achievement in the formal sector, most of the experimentation has been done in the semi-formal arena of educational provision. The following diagram shows how these different MOOC types can be located in the curriculum landscape, additionally indicating how limited or open-ended pedagogical and platform choices might be.

	Conventional ←→ Flexible			
Curriculum integration				Pedagogies / Platforms
<b>Formal</b>				
Credit, towards a formal degree, tightly <u>curriculated</u>				Limited choices & option
<b>Semi-formal</b>				
Stand alone, often not part of a degree may or may not be credit bearing	(4) Professional development/ continuing education		<b>4</b>	Wider choices of platforms & pedagogies
		(3)Science writing (3)Research writing	<b>3</b>	
	(2)Global Citizenship	(2)Graduate attributes	<b>2</b>	
<b>Non-formal</b>				
No credit, not formal curriculum alignment		(5)Sport and Nutrition	<b>5</b>	Open ended choices
	Summer School	(1)African Flora and Fauna	<b>1</b>	

Figure 3: Landscape of Higher Education provision with MOOC categories & examples

The categories help to place particular types of MOOCs into the landscape of Higher Education provision thereby contextualising them and reinforcing the view that 'multiple MOOCs' are emerging (Hall, 2013). Different versions of the same course might exist in different locations within the landscape. In particular, categories Two, Three and Four MOOCs have the potential to cross boundaries between non-formal,

semi-formal and formal domains. Such boundary crossing may result in a course existing in different domains for different students or changed formats for different cohorts of students. There are already examples of this happening, for instance at Harvard University as reported in *The Crimson* (Conway, 2013), where a single course is concurrently being offered as part of a degree for regular campus-based fee-paying students and as SPOC (for a small group of online students). BBC online writer Coughlan (2013) described this approach like a “Russian dolls” nested model, and it demonstrates the creative enlisting of the MOOC model to serve an institution’s multiple agendas.

## **Conclusion**

MOOCs provide opportunities for universities to expand and experiment with forms of online learning for the purposes of showcasing and brand-building, improving student outcomes and developing new models of online learning. Our categories of MOOCs, which capture a range of viable MOOC possibilities in our context, sit either in the non-formal domain where they serve to showcase the university’s brand or research, or may be operationalized in the semi-formal domain, where they would be offered in a variety of forms from a freely accessible model to forms that encompass alternative ways of offering non-degree certification. There is a clear implication of the value of experimenting in these domains, while largely protecting the courses that lead to degrees in the formal domain where failure or risk is less tolerable. We see that MOOCs are unlikely to threaten courses that form pathways to formal degrees given that a university’s guardianship role in certifying is not being subjugated. Discourses around MOOCs conflate formal online learning with MOOCs, but the formal certified degree programmes using flexible formats are still credit-bearing and in that sense formal. Certainly, pedagogical innovation does arise inside the traditional boundaries of formal education and we have cited examples such as SPOCs alongside regular university credit-bearing courses, but it bears remembering that for the students there are still limits to transferability across the formal education domain. So, as the landscape changes, the pieces of the educational puzzle may be constituted and reconstituted.

By providing a way of thinking and engaging with MOOCs through a mental model of a landscape of Higher Education course provision that locates particular types of courses in domains that are either formal, semi-formal or non-formal and by providing a categorisation of MOOC types delineated according to purpose, we have provided a lens to serve as a counterpoint to the simplistic hype and noise of public and media discourses. By untangling purpose, audience and educational potential, we are locating ourselves firmly in the “many MOOCs” camp, which as Hall (2014) notes ‘counterbalances the somewhat neo-colonial approach of Coursera and the big xMOOC platforms’, showing that there is not just one global way for future learning. As demonstrated in this paper, used purposefully, MOOCs can serve local agendas and support context-specific educational missions.

MOOCs and MOOC-type courses have added a new dimension to the educational landscape by strengthening the non-formal educational space and providing opportunities to experiment with the disaggregated components of the educational

experience. While difficult to anticipate what effect the broadened forms of online course provision will have, clearly there is not any single dominant form or function emerging. We hope to have contributed a more nuanced way of understanding MOOCs and MOOC type courses in order for educators to strategically prioritise and decision makers to support the full gamut of emergent opportunities. Untangling the complexities is a small contribution towards ensuring that the needs of all learners are met and that the interests of developing countries become forces in the global educational online arena.

## References

- Altbach, P. (2011). The past, present, and future of the research university. In P. Altbach and J. Salmi, (Eds.), *The making of world-class research universities - The road to academic excellence*, (pp.11-33) . Washington, DC: The World Bank. Retrieved from [http://www.bc.edu/content/dam/files/research\\_sites/cihe/pubs/Altbach\\_Salmi\\_2011\\_The\\_Road\\_to\\_Academic\\_Excellence.pdf](http://www.bc.edu/content/dam/files/research_sites/cihe/pubs/Altbach_Salmi_2011_The_Road_to_Academic_Excellence.pdf)
- Altbach, P. (2013, December 4). MOOCs as neocolonialism: Who controls knowledge? [Web log] Retrieved from <http://chronicle.com/blogs/worldwise/moocs-as-neocolonialism-who-controls-knowledge/33431>
- Baggaley, J. (2013). MOOC rampant. *Distance Education*, 34(3):368–378.
- Bates, T. (2012). What's right and what's wrong about Coursera-style MOOCs [Web log 2012, August 15] Retrieved from <http://www.tonybates.ca/2012/08/05/whats-right-and-what-wrong-about-coursera-style-moocs>
- Bates, T. (.2014). A balanced research report on the hopes and realities of MOOCs. [Web log May 15, 2014] Retrieved from <http://www.tonybates.ca/2014/05/15/a-balanced-research-report-on-the-hopes-and-realities-of-moocs/>
- Bean, M. (2012, December 20). In conversation with Claire Shaw FutureLearn is UK's chance to 'fight back', says OU vice-chancellor, *The Guardian* Retrived from <http://www.theguardian.com/higher-education-network/blog/2012/dec/20/futurelearn-uk-moocs-martin-bean>

- Clark, D.C. (2013, April 16). MOOCs: taxonomy of 8 types of MOOC [Web log]  
Retrieved from  
<http://donaldclarkplanb.blogspot.co.uk/search?q=MOOCs:+taxonomy>
- Cheverie, J. (2013, April 8). MOOCs and Intellectual Property: Ownership and Use Rights [Web log] Retrieved from <http://www.educause.edu/blogs/cheverij/moocs-and-intellectual-property-ownership-and-use-rights>
- Conole, G. (2013). MOOCs as disruptive technologies: Strategies for enhancing the learner experience and quality of MOOCs. Retrived from  
<http://eprints.rclis.org/19388/>
- Conway, Ma. (2013, June 21). 'HarvardX's New Fall Offerings To Include Two SPOCs' The Harvard Crimson <http://www.thecrimson.com/article/2013/6/21/new-edx-fall-2013/>
- Cormier, D (2013, October 29). Some things MOOCs are good for [Web log]. Retrieved from <http://davecormier.com/edblog/2013/10/29/some-things-moocs-are-good-for/>
- Coughlan, S. (2013, 24 September). 'Harvard plans to go boldly with 'Spocs' BBC News <http://www.bbc.co.uk/news/business-24166247>
- Czerniewicz, L. and Naidoo, U. (2013, 9 September). MOOC-less in Africa [Web log]. Retrieved from <http://openuct.uct.ac.za/blog/mooc-less-africa>
- Daniel, J. (2012). Making sense of MOOCs: Musings in a maze of myth, paradox and possibility. *Journal of Interactive Media In Education*, 3. Retrieved from <http://jime.open.ac.uk/article/2012-18/pdf>
- Davidson, C. N. (2014, January 16). 10 things I've learned (so far) from making a meta-MOOC [Web log]. Retrieved from <http://www.hybridpedagogy.com/journal/10-things-learned-from-making-a-meta-mooc/>
- Department of Higher Education and Training (2013). *White paper for post school education and training: Building an expanded, effective and integrated post-school system*. Pretoria: DHET. Retrieved from

<http://www.dhet.gov.za/SiteAssets/Latest%20News/White%20paper%20for%20post-school%20education%20and%20training.pdf>

Fisher, G. and Scott, I. (2011, October). The role of Higher Education in closing the skills gap in South Africa The World Bank, Human Development Group, Africa Region Background paper 3 for the World Bank project Closing the Skills and Technology Gap in South Africa. Retrieved from [http://www.ched.uct.ac.za/usr/ched/docs/Fisher\\_Higher%20Education%20role.pdf](http://www.ched.uct.ac.za/usr/ched/docs/Fisher_Higher%20Education%20role.pdf)

Greaves, 2014, personal communication, 24 January 2014

Haber, J. (2013, December 2). 'The MOOC backlash - Udacity's Pivot. [Web log] . Retrieved from [http://www.huffingtonpost.com/jonathan-haber/the-mooc-backlash-udacity\\_b\\_4339487.html](http://www.huffingtonpost.com/jonathan-haber/the-mooc-backlash-udacity_b_4339487.html)

Hall, M. (2014, February 3). MOOCs: What have we learned? [Web log] Retrieved from <http://blogs.salford.ac.uk/martin-hall/moocs-learned/>.

Higgins, J. (2013). Academic freedom in a democratic South Africa: Essays and interviews on Higher Education and the humanities. Wits University Press: Johannesburg.

Hollands, F.M. & Tirthali, D.(2014). *MOOCs: Expectations and Reality* New York: Center for Benefit-Cost Studies of Education Teachers College, Columbia University. Retrieved from [http://cbcse.org/wordpress/wp-content/uploads/2014/05/MOOCs\\_Expectations\\_and\\_Reality.pdf](http://cbcse.org/wordpress/wp-content/uploads/2014/05/MOOCs_Expectations_and_Reality.pdf)

Jegade, O. (2012, February 1). The status of Higher Education in Africa. Paper for panel discussion in the launch of *Weaving Success: Voices of Change in African Higher Education- A project of the partnership for Higher Education in Africa (PHEA)* held at the Institute of International Education, New York.

Koller, D. (2014, January 30). Why 259,969 people taking the same class at the same time might just be the future of education [Web log] Retrieved from <http://blog.ted.com/2014/01/30/daphne-koller-on-the-future-of-education/>

- Letseka, M. and Maile, S. (2008, March). High university drop-out rates: a threat to South Africa's future. *HSRC Policy Brief*. [www.hsrc.ac.za](http://www.hsrc.ac.za).
- Marshall, S. J. (2013). Evaluating the strategic and leadership challenges of MOOCs. *MERLOT Journal of Online Learning and Teaching*, 9(2), 216-227. Retrieved from [http://jolt.merlot.org/vol9no2/marshall\\_0613.htm](http://jolt.merlot.org/vol9no2/marshall_0613.htm)
- Moser-Mercer, B. (2014). 'MOOCs in fragile contexts', in Proceedings of the European MOOC Stakeholder Summit (EMOOCs 2014) Cress, U & Kloos, C.D. , (Proceedings editors), p114  
<http://www.emoocs2014.eu/sites/default/files/Proceedings-Moocs-Summit-2014.pdf>
- Olds, K. (2013). Mapping Coursera's Global Footprint, *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/blogs/globalhighered/mapping-courseras-global-footprint#ixzz2IMeG0B8d>
- Organisation for Economic Co-operation and Development (2008). *Education at a glance: OECD Indicators* (2008 ed.). Paris: OECD. Retrieved from <http://www.oecd.org/education/skills-beyond-school/41284038.pdf>
- Pappano, L. (2012, November 2). The year of the MOOC. *New York Times*. Retrieved from <http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html?pagewanted=all>
- Popenici, S. (2014, April 22). MOOCs- A Tsunami of promises [Web log] Retrieved from <http://popenici.com/2014/04/22/moocs2014/>
- Rosselle, M; Caron, P & Heutte, J. (2014) A typology and dimensions of a description framework for MOOC in Proceedings of the European MOOC Stakeholder Summit, Cress, U & Kloos, C.D. , (Proceedings editors) EMOOCs 2014 p. 130  
 Retrieved from <http://www.emoocs2014.eu/sites/default/files/Proceedings-Moocs-Summit-2014.pdf>
- Sharpe, P. (2013). *Northern land grab vs. Southern autonomy or a third way? Barriers to authentic North-South partnerships*. Paper presented at UNISA-Cambridge

conference on Open and Distance E-Learning 2013, Stellenbosch, 29 September – 2 October 2013. Available (via Dropbox) from [here](#).

Siemens, G., Irvine, V. & Code, J. (2013). Special Issue on MOOCs: An Academic Perspective on an Emerging Technological and Social Trend. *MERLOT Journal of Online Learning and Teaching*, 9(2), iii-iv.

Stanford (2014, May). Stanford 2013 – In review. Retrieved from [http://www.stanford.edu/dept/vpol/vpol.iles/2013\\_Report/Stanford\\_Online\\_2013\\_In\\_Review.pdf](http://www.stanford.edu/dept/vpol/vpol.iles/2013_Report/Stanford_Online_2013_In_Review.pdf)

Straumsheim, C. (2013, September 12). The full report on Udacity experiment *Inside Higher Ed* Retrieved from <http://www.insidehighered.com/news/2013/09/12/after-weeks-delays-san-jose-state-u-releases-research-report-online-courses>

World Bank. (2010). *Financing Higher Education in Africa, directions in development*, Washington DC

Yuan, L., Powell, S. & Olivier, B. (2014, January). Beyond MOOCs: Sustainable online learning in institutions. A white paper. Centre for Educational Technology, Interoperability and Standards Retrieved from <http://publications.cetis.ac.uk/2014/898>

Yuan, L. & Powell, S. (2013, March). MOOCs and Open Education: Implications for Higher Education. A white paper .Centre for Educational Technology, Interoperability and Standards Retrieved from <http://publications.cetis.ac.uk/2013/667>