

## A Strategic Response to MOOCs: What Role Should Governments Play?

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This paper asks the question what role should governments play in supporting a strategic response to the Massive Open Online Course (MOOC) movement? It describes the growth of MOOCs in Europe and reports on the Irish experience as a case study to discuss whether or not a more formal policy response is required to harness the potential of new models of open and online learning to promote wider access to higher education. Ireland is used to illustrate how different institutions have chosen to respond to MOOCs by tracing the history of several first generation initiatives. The response of government agencies and policy-makers is then discussed in the context of a number of high-level policy initiatives. Set against the backdrop of a lack of serious policy engagement in the development of MOOCs, the paper concludes by explaining why Dublin City University (DCU) has chosen to launch Ireland's Open Learning Academy.

Keywords: MOOCs, Strategic Drivers, Open Learning Academy, Dublin City University, Ireland,

### Introduction

There have been many bold claims made about the promise and perils of the Massive Open Online Course (MOOC) movement (Krause & Lowe, 2014). While some believe the MOOC bubble has burst they continue to generate debate (see for example, Sharrock, 2015) and the level of interest from learners is growing annually at an impressive rate. In 2015, for example, over 35 million people are claimed to have registered for a MOOC, which is almost twice the number from the previous year (Online Course Report, 2016). Arguably, no other educational innovation has attracted the same level of media coverage since the Sputnik era of the 1960s when there was a perceived crisis in the need for greater Science and Technology Education, which in turn has fuelled public interest and brought MOOCs to the attention of senior academic leaders, politicians and policy-makers (Brown, 2016). However, the response to MOOCs varies greatly both across institutions and countries. While some countries such as France and Norway have developed national MOOC strategies they appear to be the exception.

This paper briefly outlines the European response to MOOCs and then presents a case study of the experience in the Republic of Ireland in framing a bigger question in terms of the role governments and policy-makers should play in supporting new models of open and online learning. The basic premise is that the situation described in Ireland is likely to be similar in many other countries and this raises the more general question of whether a more strategic policy response is required in the future. After all, arguably MOOCs are not just about MOOCs but rather provide an opportunity to engage in bigger ideas around equity, innovation and new open delivery models for a more inclusive and sustainable future (Brown & Costello, 2016). After tracing the development of several first generation MOOCs in Ireland the paper contrasts these initiatives with the current policy landscape, which has largely failed to engage in the challenges and opportunities presented by the growth of new models of online learning. We conclude by reporting after considerable deliberation how one Irish institution is currently implementing an enterprise-wide MOOC initiative using a new platform that aligns with high-level strategic drivers and its commitment to an innovation culture.

## The European Response

While the level of interest in MOOCs in the United States appears to be waning with fewer institutions indicating their intention to develop free online learning initiatives (Allen & Seaman, with Poulin, & Taylor Straut, 2016) this is not the case in Europe. A recent survey of European institutions suggests that MOOCs are still on the rise (Jansen & Schuwer, 2015). Figure 1 taken from this survey shows the proportion of responding European institutions offering or intending to offer MOOCs in comparison to the percentage in the United States responding to the annual Babson survey (Allen & Seaman, 2015). Some questions from the Babson survey were incorporated within the European study and the results show notable differences between both continents. For example, ‘a large majority of European higher education institutions disagree with the statement that credentials for MOOC completion will cause confusion about higher education degrees while a majority in the US agrees’ (Jansen & Schuwer, 2015, p.4). Moreover, over 80% of European institutions agrees with the statement MOOCs are important for learning about online pedagogy; in contrast this figure has decreased in the United States from 44% in 2013 to 28% in 2014 (Allen & Seaman, 2015). Similarly, the number of institutions reporting that they believe MOOCs to be sustainable fell in the United States from 28.3% in 2012 to only 16.3% in 2014 (Allen & Seaman, with Poulin, & Taylor Straut, 2016). In the European survey more than half of the institutions agree with the statement that MOOCs are a sustainable method for offering courses.

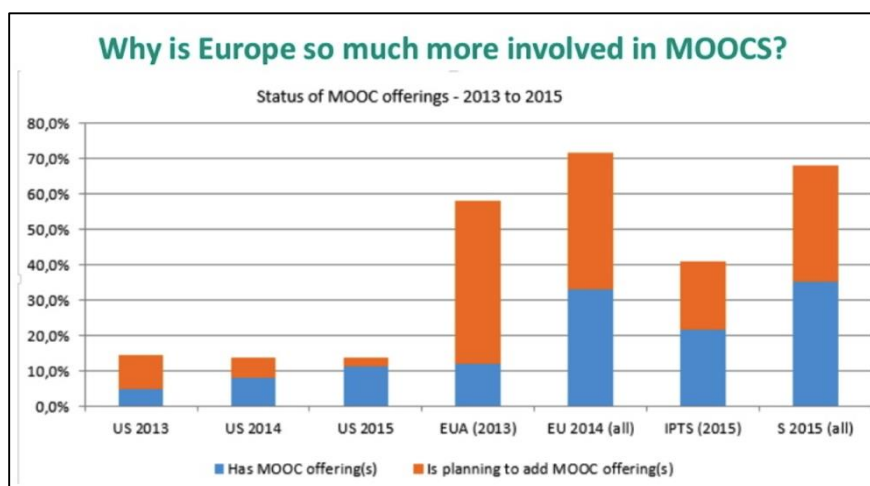


Figure 1: Comparison between US and Europe of MOOC offerings (Jansen & Schuwer, 2015)

Also there appears to be interesting differences in the strategic drivers for many European MOOCs as opposed to those offered by North American institutions. In the United States using MOOCs for student recruitment is reported as the most important primary objective of institutions, while in Europe the most commonly mentioned driver is to reach new students and creating flexible learning opportunities (Jansen & Schuwer, 2015). Although speculative there is reason to believe that the case for MOOCs in Europe is linked to the long tradition of promoting life-long learning and access to higher education. With the notable exception of the United Kingdom it needs to be noted that in Europe higher education is still largely framed from a policy perspective as a public good, as distinct from private or personal commodity. This tradition along with major differences in the business model for higher education, the availability of European Commission funding for MOOCs, and the mechanism of the European Credit Transfer System (ECTS) may help to explain such differences.

## The Irish Context

The Republic of Ireland offers an interesting case study in terms of the European response to MOOCs. According to *Forbes* magazine Ireland has the distinction of hosting the world’s first MOOC through the ALISON platform (High, 2013). A recent study on ALISON published by the European Commission’s Joint Research Centre Science Hub (Souto-Otero, et. al., 2016) reports that the platform first established in 2007 has reached more than six million learners. Although not a recognized institution offering accredited qualifications, according to the company by December 2015 there were over 750,000 ALISON graduates worldwide. If this figure is accurate then this makes ALISON one of the largest free online course providers. Data from the above case study also notes that ‘Aside from the UK (545,001 learners) and Ireland (97,245 learners), European learners make up the minority of ALISON enrolments (122,944 from other European Countries)’, which is probably explained by most courses being delivered through English (Souto-Otero, et. al., 2016, p. 99).

The claim of being the first Irish formally accredited institution to offer a MOOC is shared by Dublin Institute of Technology, Hibernia College, and IT Sligo (Brown & Costello, 2016). On 14<sup>th</sup> February 2013, IT Sligo was first to issue a press release announcing their intention to offer a MOOC (Irish Independent, 2013) but this free online course on the topic of *Lean Sigma Quality*, which attracted over 2000 learners, was not actually taught until November (IT Sligo, 2013). In the meantime, the Minister for Arts, Heritage and the Gaeltacht formally launched at Hibernia College on 10<sup>th</sup> April 2013 what was described at the time as Ireland’s first MOOC (Education Matters, 2013). However, this MOOC on the theme of *Irish Identity*, with notably an introductory video from the Prime Minister (Taoiseach) did not start until 27<sup>th</sup> May 2013. Only a few weeks earlier starting on 13<sup>th</sup> May 2013 the Dublin Institute of Technology, together with GetReskilled, began what appears to be the first MOOC delivered by an Irish institution (PharmaMooc, 2013). This MOOC, known as *PharmaMooc*, targeted people interested in working in the Pharmaceutical Industry and attracted a global audience of over 800 learners from 71 different countries worldwide. For historical purposes, Figure 2 illustrates some of the websites and promotional material related to these first generation Irish MOOC initiatives.

It is interesting to note that despite these early initiatives the draft *Digital Roadmap: Phase 1* released in May 2014 (National Forum for the Enhancement of Teaching and Learning in Higher Education, 2014), with the aim of building digital capacity in Irish higher education, made no explicit reference to MOOCs. Whether this was a deliberate decision at the time by the writing team is unclear and perhaps it was simply an oversight due to a very short consultation process. With the benefit of hindsight, whatever the reason, the absence of MOOCs from the draft Digital Roadmap was surprising, particularly since a section of the document reviews wider European and global developments. Moreover, the Digital Roadmap endorses the principles of open education to support future developments in higher education and states the need for greater vision and leadership in planning the digital future.

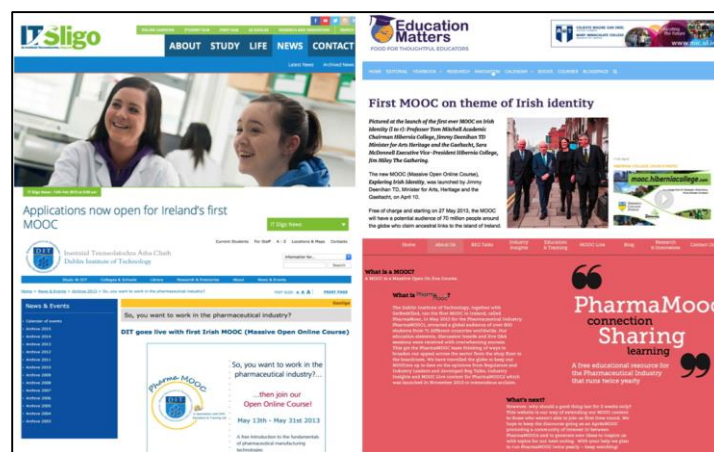


Figure 2: Examples of first generation Irish MOOC initiatives

In May 2014, the National University of Ireland (NUI), a unique overarching body serving the interests of four member universities and several colleges, invited interested groups to tender on the feasibility of a collaborative National online education initiative, encompassing MOOCs, for the Irish university sector (Brown & Costello, 2016). A brief news item about this initiative featured in the *Times Higher Education*:

“The new organisation, which would include Irish universities outside the NUI group, may begin by offering a series of MOOCs showcasing Irish education. Depending on the level of public interest, the organisation could then move into profitable accredited programmes” (Powell, 2014, P.6).

Although the tender closed in September 2014, and a written report was expected within several months of the project getting underway, to date there has not been any public statement in response to this initiative. It is known that a report was produced but this has never been widely circulated. However, before the tender process had closed, in June 2014 Trinity College Dublin announced its intention to join the UK-based FutureLearn platform and to offer a MOOC later in the year on the theme of *Irish Lives in War and Revolution: Exploring Ireland's History 1912-1923*. Reportedly almost 14,000 people registered for this MOOC, which started in September (Kenny, 2014).

In 2014, another particularly interesting development in Ireland was a high profile visit from a delegation from Tata Consulting Services. Founded by Jamsetji Tata in 1868, the Tata Group 'is part-owned by Pallonji Mistry, the richest Irish citizen alive, and run by his son' (McCabe, 2014, P.1). The Tata Consulting Group is a global enterprise headquartered in India, with operations in more than 100 countries employing over 500,000 people worldwide. In August 2014 a high-level delegation from the Tata Group met with senior Irish politicians and institutional presidents with the objective of making Ireland the centre of the world for online degrees (Brown, 2016). The aim, as reported by the *Independent* newspaper, was to negotiate 'a deal to transform Ireland into the world's first stop for e-learning and earn millions for the country's floundering universities' (McCabe, 2014, P.1).

Following the Tata delegation's visit, in early December 2014, the Irish Government's *Joint Committee for Education and Social Protection* held a special meeting to discuss the future of online learning. Dublin City University, Trinity College Dublin and the UK Open University and were invited to give short presentations to the Joint Committee. The written submission prepared by Professor Mark Brown on behalf of Dublin City University drew on the Porto Declaration on European MOOCs (EADTU, 2014), which was developed as part of the HOME Project, and observed:

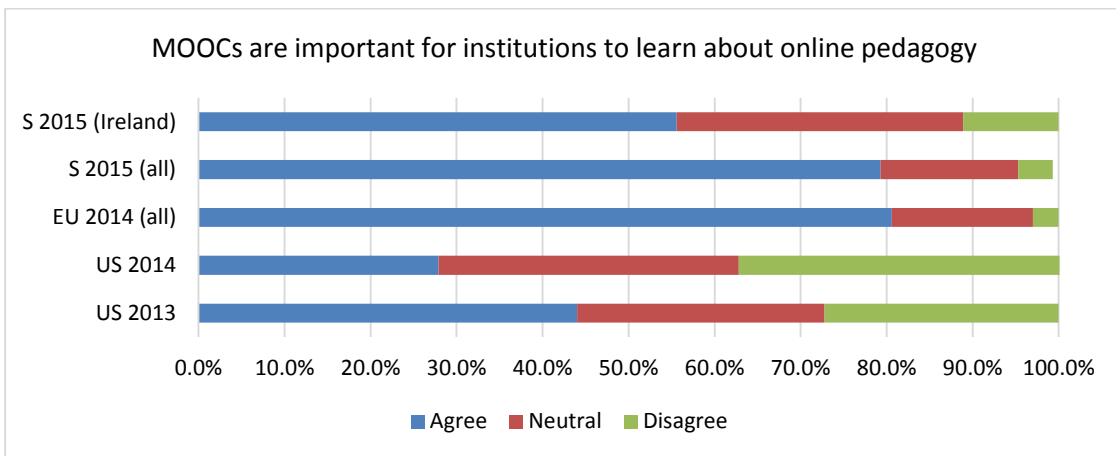
"Arguably, by analogy with the invention of the steam engine, there is a lot of huff, puff, single-track thinking associated with MOOCs as many traditional universities rush to follow early adopters to secure some form of advantage. In many cases the drivers for adopting MOOCs are not well aligned with institutional missions and there is a sense in which the initial head of steam is motivated by fear of missing out" (Brown, 2014, P.2).

A problem not exclusive to Ireland is the lack of detailed literature in the public domain on the expression and development of institutional MOOC strategies in higher education. While IT Sligo deserves credit for its work in developing a MOOC for the transition between school and higher education, funded by the National Forum, and for efforts to promote low-cost MOOCs through the Erasmus+ LoCoMoTion project, at this stage Dublin City University (DCU) is the only institution to publish its strategic institutional response to MOOCs (Brown, Costello, Donlon & Nic Giolla Mhichil, 2015). The decision to adopt a new MOOC platform known as Academy, which is described in the final section of this paper, is primarily driven by the goal of fostering a rich ecology of innovation in teaching and learning.

The only other published institutional report on the island of Ireland is available from the University of Ulster, which highlights the scale of the challenge facing institutions along with many of the opportunities presented by the MOOC movement (Hamber, Jaffrey & Murphy, 2015). Importantly, the Ulster report identifies MOOCs as part of a much wider movement to open up learning. With this last point in mind it needs to be noted that a report on *Learning Resources and Open Access in Higher Education Institutions in Ireland*, published in 2015 by the National Forum for the Enhancement of Teaching and Learning in Higher Education (2015b), claims the big headline-grabbing MOOC story has muddied the waters somewhat in relation to the 'open' project'. Therefore, the report deliberately chose to focus on what it describes as 'little OER' rather than literature on 'big OER', which it claims are less relevant in the Irish context at this time.

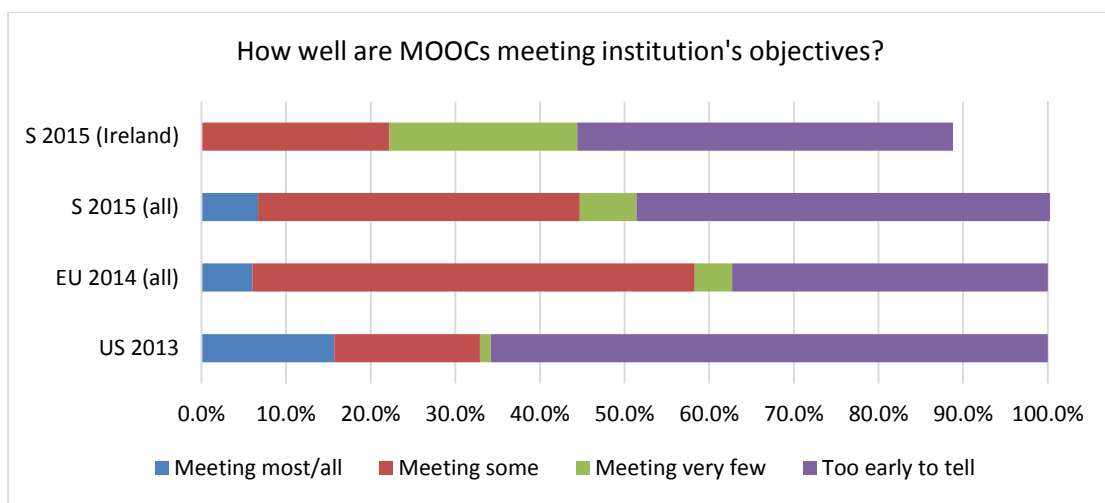
## **Irish Institutional MOOC survey**

A follow up European survey on MOOCs in higher education institutions was conducted towards the end of 2015. In light of the lack of evidence of the perceived relevance of 'big OERs' in the Irish higher education a country specific analysis of the nine Irish institutional responses was undertaken by Costello and Brown (2016). The analysis of the findings for Ireland shows that there is no single primary objective across the sector for adopting MOOCs. Of the three Irish institutions in this sample already offering or developing MOOCs the primary objective was spread between Innovative Pedagogy, Reach New Students and Increase Institution Visibility. Although only a small sample the results suggest that institutional culture plays an important role in shaping or determining the primary objective.



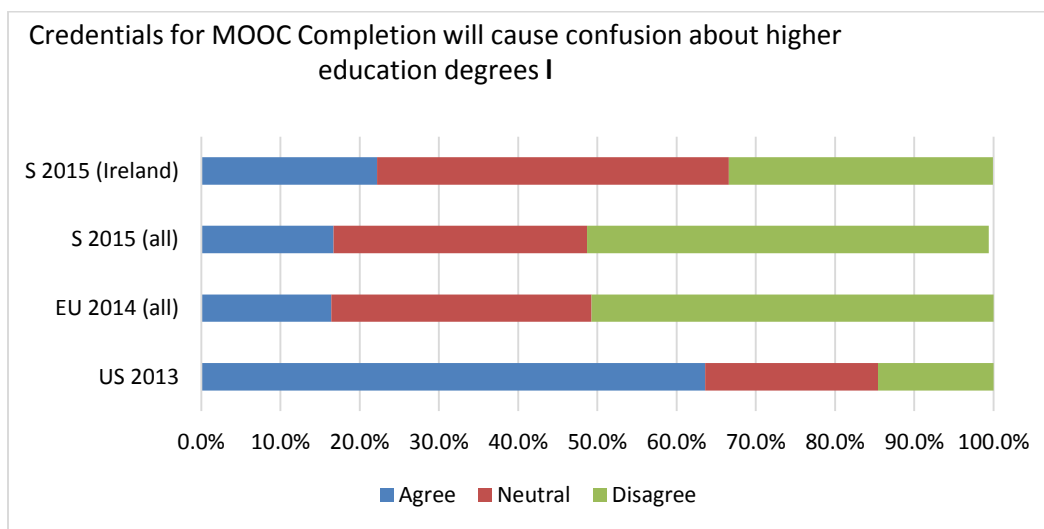
**Figure 3: Value of MOOCs to Irish institutions in terms of learning about online pedagogy**

That said, Figure 3 illustrates that Irish respondents value the contribution MOOCs can make to learning about online pedagogy more than those participating in the Babson survey, although not at the same level as reported across Europe more generally (Costello & Brown, 2016).



**Figure 4: Evidence of how well MOOCs are meeting institutional objectives**

The extent with which previous and current MOOC initiatives in Ireland are meeting institutional objectives is shown in Figure 4. The results for Ireland are relatively consistent with the previous 2014 survey and the preliminary analysis of the wider 2015 European sample (Costello & Brown, 2016). In approximate terms it would appear that MOOCs are meeting institutional objectives for Irish providers at a higher percentage of respondents to the equivalent Babson survey.



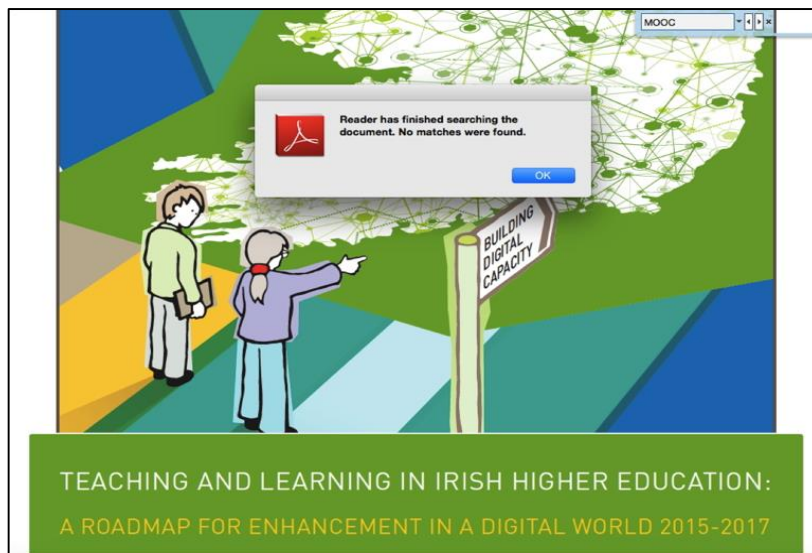
**Figure 5: Perceived extent that offering credentials for MOOCs might cause confusion**

Again, in contrast to the Babson survey, the sense that offering credentials for MOOCs completion will cause confusion is perceived by Irish institutional respondents to be less of a concern than those in the United States completed the Babson survey (see Figure 5). However, fewer Irish institutional responses disagree with the statement about MOOCs contributing to credentials than the wider European sample where around 50% of institutions do not perceive this as a serious problem (Costello & Brown, 2016).

In summary, the paper has so far outlined the European response to MOOCs making comparisons with institutions in the United States. It has traced the early development of MOOCs in Ireland and reported some of the preliminary findings of a 2015 country specific survey. The next section shifts attention to the national policy context with the intention of highlighting an important gap between the Irish response and major European and international initiatives.

## Irish Policy response

In April 2015, a more complete *Roadmap for Enhancement in a Digital World 2015-2017* was published to help advance a shared vision of ‘a [higher education] culture that fully embraces digital learning and digital innovation’ (National Forum for the Enhancement of Teaching and Learning, 2015a, p.iv). Given the above discussion it is not surprisingly the updated Roadmap makes very few references to MOOCs, with this term completely absent from the Executive Summary and policy recommendations (see Figure 6). Although the Roadmap has other commendable features, the initiative arguably favours more traditional campus-based models of higher education and does little to address a major barrier to the growth of online delivery as a result of Ireland’s restrictive funding model. As Brown and Costello (2016) note the current model limiting off-campus delivery due to no government contribution to study is at odds with recent European reports from the High Level Group on the Modernization of Higher Education (2014) for more inclusive funding approaches that help to open up education, develop more flexible modes of delivery, and diversify student populations.



**Figure 6: Evidence of the absence of MOOCs from National Roadmap**

Similarly, MOOCs do not feature in the *Digital Strategy for Schools: Enhancing Teaching, Learning and Assessment 2015-2020* (Department of Education and Skills, 2015) launched in October 2015 by the Minister for Education and Skills. Nevertheless, in January 2016 the same Minister was present to launch Ireland’s first MOOC for teachers—a collaborative effort between Dublin City University, H2 Learning and Microsoft—on *21<sup>st</sup> Century Learning Design*.

Even more recently the *Strategy for Technology-enhanced Learning in Further Education and Training 2016-2019* (Education and Training Boards Ireland | Further Education and Training Authority, 2016) fails to address the challenges and opportunities posed by MOOCs. This oversight is particularly surprising given the Strategy has a vision by 2019 of technology-enhanced teaching and learning providing greater access to further education and training, and moreover achieving positive outcomes for learners, enterprise, and wider society and the economy.

The disconnection between national policy initiatives and wider macro level MOOC developments in Europe and globally is particularly obvious in the *National Plan for Equity of Access to Higher Education 2015-2019* (Higher Education Authority, 2015) published in December 2015. MOOCs and the potential contribution of new models of higher education do not figure in this plan, and nor do they appear in Ireland’s National Skills Strategy 2025 (Department of Education and Skills, 2016a) also launched by the Minister for Education and Skills in January 2016 (see Figure 7). Despite recognising that technology’s pervasiveness means people of all ages increasingly need to be ‘technologically literate’ in order to participate fully in society, referring to e-health, online banking and online supermarket shopping, there is no acknowledgement of the potential of online learning for improving lives, creating better places to live and work, and driving more sustainable economic growth.



**Figure 7: Evidence of absence of MOOCs from National Skills Strategy**

The absence of MOOCs and new models of online learning more generally from the above policy documents no doubt explains why they do not feature in a recent comprehensive briefing paper for the new Minister for Education and Skills (Department of Education and Skills, 2016b). Thus, the reality of the situation is that currently in the Irish context MOOCs do not feature prominently in policy-level discussions and speculatively may even have been deliberately dismissed by influential educators and policy-makers as nothing more than a passing fad (Brown & Costello, 2016). There appears to have been a failure to recognise that the MOOC movement is not on an independent trajectory but rather entwined within a complex constellation of social, technological and educational change (Brown, 2016).

On one hand, the MOOC movement symbolizes so-called Silicon Valley values, the growth of the influence of neo-liberal policies, the emergence of new labour model for the teaching profession, and the ultimate goal of an unrestricted global market for higher education (Peters, 2013). In this regard ‘the MOOC is not on an independent trajectory and cannot be uncoupled from wider debates over issues of power and privilege and the struggle to win control of the higher education system’ (Brown, 2016, p.39).

On the other hand, MOOCs, or variations of them, provide a real opportunity to address the Iron Triangle of reducing costs, enhancing quality and opening access to meet increasing demand for higher education (Daniel, 2012). Without engaging in the MOOC debate at a policy level, there is a risk that Ireland may be inadequately prepared to respond to the new global online learning environment, especially as the movement evolves and new types of courses and formal credit earning pathways emerge from reputable institutions and international consortia.

In summary, in the Republic of Ireland there has been no clear policy direction or nationally co-ordinated approach to the growth of (MOOC) movement. Arguably, the policy gap around MOOCs is part of a bigger issue concerning the lack of government funding for online, off-campus, distance students, which in European terms remains a significant barrier to the goal of opening up more flexible modes of delivery to meet the needs of a diverse population. If, as the *National Plan for Equity of Access to Higher Education* states, “As a country we have everything to gain and nothing to lose by increasing levels of participation in higher education among all Irish citizens” (Department of Education and Skills | Higher Education Authority, 2015, p.i), then Ireland would benefit from a more strategic response to the MOOC movement. As previously stated, MOOCs are not just about the provision of free online courses but rather provide a real opportunity to engage in bigger ideas around promoting equity, fostering innovation and developing new open delivery models for a more inclusive and sustainable future.

Set against this wider context the question is how should Ireland strategically respond to the MOOC movement? Is it already too late? Does it need to respond? After all, the first generation MOOC initiatives described above were largely one-offs and may be evidence that most Irish institutions have other priorities. Nevertheless, what lessons can be learnt from a more direct policy and coordinated response taken in other countries around the world? What role does the small nation state have in the provision and development of online education in an increasingly globally connected digital world? Why would Ireland bother when there is already a plethora of MOOCs available to Irish citizens through the major platforms? This raises the question where to next for Ireland?

## **Dublin City University’s response**

In May 2015, the National Institute for Digital Learning (NIDL) at Dublin City University hosted a National MOOC Symposium to promote greater debate and awareness of the challenges and opportunities within the Irish context. Also to promote wider discussion and strategic foresight in May 2015 the NIDL in partnership with the Irish Learning Technology Association (ILTA), and the US based New Media Consortium, launched Ireland’s first Horizon Report for higher education (Johnson, Adams Becker, Cummins, Estrada & Freeman, 2015). The NIDL has also played a leading role in two European funded MOOC related projects (HOME and SCORE 2020) led by the European Association for Distance Teaching Universities (EADTU). Apart from these initiatives and the feasibility study commissioned by NUI, as demonstrated above there has not been a dedicated effort to develop a national response to MOOCs.





**Figure 8: Example of the DCU Open Learning Academy**

Therefore, after considerable deliberation, building on the above initiatives Dublin City University has made a strategic decision to implement a major second generation MOOC initiative using a new platform known as Academy (see Figure 8), which has been developed over the last 18 months by Moodle HQ. This decision was not taken lightly. It follows a lengthy process of identifying the key institutional drivers for any such initiative and a review of existing platforms to evaluate their alignment and suitability in terms of the University's primary objectives (Brown, Costello, Donlon & Nic Giolla Mhichil, 2015). Notably, the most influential factor in selecting Academy was the opportunity to shape the design and direction of MOOCs rather than be a client of an existing platform dominated by major institutions and elite universities, with little ability to influence future developments. Dublin City University, a major leader in the use of Moodle in Europe, is the first institution in the world to adopt the new platform, which will be described as Ireland's Open Learning Academy. More specifically, drawing on an ecological perspective on digital resilience (Weller & Anderson, 2013) the intention of the Academy initiative is creating a "third space" for innovations in teaching which enable more agile and future-focussed responses to the opportunities presented by MOOCs for both off-campus and conventional on-campus learners.

The first MOOC on the new Academy platform known as 'Head Start Online' was piloted in August 2016. This MOOC was designed after a synthesis of the literature and review of digital tools at other major online/distance education providers (Brunton, et. al., 2016) to promote the readiness and success of prospective mature, part-time, online learners during the initial stages of the study life-cycle. Future MOOCs include a course on the Irish language and culture (Irish 101) along with three designed from a contemporary perspective to build on the 100-year commemoration of the 1916 Easter Rising. Three other MOOCs have been chosen for their focus on teacher education and explore Learning Leadership, 21<sup>st</sup> Century Skills for Teachers and Coding for Teachers. Future MOOCs are planned and already there is clear evidence of the benefits of working in a new platform that enables the University to be a future-maker rather than future-taker.

## Conclusion

The Irish case study reported in this paper suggests that there is a strong argument for governments and policy-makers around the world to take a more strategic and coordinated approach to the rapidly evolving MOOC movement. The future of MOOCs is not trivial work. Based on the Irish experience, early first generation MOOC initiatives have not been sustainable and appear to have taken place largely in parallel to more mainstream policy developments. Although the future of MOOCs remains uncertain, central and regional governments have an important role to play, especially if countries and local institutions wish to shape and actively contribute to new models of higher education for new times in today's globalised world. Arguably, in the case of Ireland the Country would benefit from a high-level policy forum to engage key stakeholders on the future challenges and opportunities of new models of online teaching and learning, including MOOCs. It remains a major point of disconnection that ironically in the so-called Silicon Valley of Europe that the funding model for higher education in Ireland does not recognise the need to support diverse and geographically dispersed online distance learners. If MOOCs serve to highlight this disconnection and lead to a more inclusive funding model, which opens up greater access to higher education, then they will have done the people of Ireland a great favour.

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