“To MOOC or not to MOOC? University decision-making and agile governance for educational innovation.”

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Summary:

In this chapter we review the options for offering MOOCs and the reasons why some universities have chosen to offer them. We give a brief analysis of MOOCs being offered at the start of 2014 from the growing number of MOOC platform companies. We appraise the benefits and the drawbacks of offering MOOCs, and the implications for university academic and governance processes, drawing on our experiences at the University of Edinburgh.

The MOOC ecology

At the time of writing (late 2013/early 2014), our analysis of detailed data provided by Coursera, one of the major MOOC hosting companies and with which we partner, showed some interesting patterns of types of organisations, age of partnership and number of MOOCs offered. Of the 78 organisations in the dataset, 45% joined in the ‘early phase’, which we are defining as ‘before end 2012’, and 54% joined in the ‘late phase’, ie January 2013 onwards. By November 2013, the late phase partners had almost all provided between 1 and 7 MOOCs, and only two had offered more (8 MOOCs). Given the time since joining, this observation is unsurprising. However, the early phase partners had also mainly (61%) offered only up to 7 MOOCs, and those which had offered more than 7 MOOCs were distributed between those offering 8 and those offering 27 MOOCs. It appears that some universities have strategies and operational processes/capacity that lead them to develop many MOOCs rapidly, in reality without much time to learn from one group before embarking on the construction of the next group, and others are more ‘paced’ or more restricted by capacity for production and management.

The University of Edinburgh is in the early phase cohort and has so far offered 6 MOOCs on Coursera, with a further 8 well on the way to completion. We have a capacity limitation on video production, but more importantly, we have a strategic approach to MOOCs which requires us to have a light business case for each that has a reason for creating a MOOC goes well beyond just another ‘me too MOOC’. This requires substantial iteration with each potential MOOC team, and scheduling for video and instructional design. We also wish to cover as wide a range of subjects as possible, and so each MOOC is more distinctive than would be the case for many MOOCs in closely related subjects, and we wish to build additional capacity for online learning across the University.

It will be interesting to watch these different types of Coursera partners over the next few years to see if stable patterns of MOOC provision emerge, and also to compare that with partners on other MOOC platforms as these mature.
Types of MOOC platforms & university choices for partnership

Since the appearance of the first companies (we shall use the term ‘MOOC platforms’) set up to offer MOOCs around 2011-12, there has been a steady rise in the number of these platforms and also in variants of them. These can be classified as follows, with examples of each:

<table>
<thead>
<tr>
<th>Type of MOOC platform</th>
<th>Selected examples &amp; (country)</th>
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<tbody>
<tr>
<td>Independent company and for profit</td>
<td>Coursera (US)</td>
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<tr>
<td></td>
<td>Iversity (DE)</td>
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<tr>
<td></td>
<td>Udacity (US)</td>
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<tr>
<td>Independent company and not for profit</td>
<td>edX (US)</td>
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<tr>
<td></td>
<td>Futurelearn (UK)</td>
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<tr>
<td></td>
<td>Open2Study (US)</td>
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<tr>
<td>Government sponsored/owned</td>
<td>France Numerique Universite FUN (FR)</td>
</tr>
<tr>
<td>DIY – in-house but open to other universities to add their own content</td>
<td>no examples at present</td>
</tr>
<tr>
<td>DIY - in-house but only for self-created content</td>
<td>ALT (UK)</td>
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<tr>
<td></td>
<td>UK OU (UK)</td>
</tr>
<tr>
<td>As extension of existing commercial operation</td>
<td>Blackboard Coursesites (US)</td>
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<tr>
<td></td>
<td>Google (US)</td>
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<tr>
<td></td>
<td>Instructure (Canvas) (US)</td>
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<tr>
<td>Portal to in-house MOOCs and VLEs</td>
<td>OpenupEd (NL)</td>
</tr>
<tr>
<td>Not for profit organisation with commercial sponsorship/support</td>
<td>MiriadX (ES)</td>
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This range of platforms offers choices to potential MOOC providers, mainly universities, as to where to place their open online courses, and of course the option to be ‘faithful’ to one or ‘promiscuous’ with several. This choice was very limited (and perhaps simpler) for early MOOC-providing universities, for example in summer 2012, and several MOOC platforms have been set up quite recently (i.e. spring, summer 2013) so it is not surprising that the early entrants have attracted the majority of university partners at the date of writing. Competition between MOOC platforms for MOOC providers, and for MOOCs with good monetisation potential will inevitably be one aspect of the decision-making process for new entrant MOOC providers, and perhaps be an element in any review and reconsideration for those already in the field. Some platforms select their partners carefully from specific groups of universities, especially high ranking ones (eg edX, Coursera) and some are open to everyone, university or individual faculty member to mount courses (eg Coursesites, iversity). Thus competition will take different forms, depending upon the open-ness of the platform to universities, colleges and other organisations.

At present, most universities are ‘faithful’ to one platform, probably mainly because the administrative overheads on working with two or more platforms are significant as we have found at
the University of Edinburgh (Coursera and Futurelearn). At present it also isn’t clear that any one platform will necessarily be better than another, although each will offer advantages and disadvantages to any given potential partner (e.g. in terms of the digital learning environment interface design, marketing reach, monetisation strategy). With the emergence of ‘national MOOC platforms’, that is those supported explicitly by governments financially or in speeches (e.g. Futurelearn in UK, FUN in France), a political dimension enters the decision process, as funding or other advantages may arise from universities being active on their own national platform, and perhaps handicaps result from not being present, even though those national MOOC platforms are also open to providers beyond their state boundaries. This would be particularly true for universities already active on a platform not in their own country. Another reason for the emergence of MOOC platforms in countries outside the US is where language is felt to be an important issue, for example France and francophone languages, and the Gulf States and Arabic script. The platform itself can be in the language of the majority of MOOCs offered, aiding access to those with limited English. It may be that existing MOOC platforms such as Coursera and Futurelearn may eventually create full multilingual platforms if demand warrants it, with signs of this in the support of multiple alphabets and full translation services. Regardless of the MOOC platform approach, different language groups (e.g. Spanish, French, Mandarin) can self-form within individual MOOCs by individual learners getting together, as we have seen happening in our own MOOCs.

From the perspective of faculty, a major influence on whether they would prefer their MOOC on one platform or another is likely to be the affordances and limitations of the digital learning environment on offer (i.e. the software services and applications provided, openness to use of applications outside the platform DLE) and whether they are able to offer their course in the way they would wish. All DLEs contain embedded pedagogical models, and faculty wishing to offer innovative education will have views on whether their platform DLE can or cannot support them.

From the perspective of potential inter-university (inter-provider) collaboration, presence on a single platform is most powerful, and was certainly a significant factor in our decisions at the University of Edinburgh to join Coursera (US peer network) and Futurelearn (UK peer network). It will be interesting to watch how this plays out over the next few years.

**MOOC providers beyond the original university sector**

Although so far in this chapter we have considered MOOC providers all to be educational institutions, mainly traditional universities, this situation is changing. While the original entrants in 2012-13 are still present, and are all high ranked universities, the recent entrants are more varied. High rank universities still predominate, although the definition of ‘high rank’ has expanded to include those at the top end of their own national rankings rather than world league tables such as QS World Rankings. This has enabled a wider range of countries to be represented in the MOOC provider community, and also MOOCs in a potentially wider range of languages to be offered. At present Chinese, French, Russian and Spanish are the most common languages, although several MOOC have been translated by their learning community into Portuguese.
For lower ranking universities, the offer to join the global MOOC community alongside universities much higher up the league tables must be very attractive. This has caused some debate amongst the top ranked universities, many of which had joined what they thought would be an ‘exclusive club’, and one can see some evidence of attempts to manage this challenge within MOOC platform websites. To date it does not appear that any top rank universities have left a platform because of this, nor that they have decided to cease offering MOOCs (although, given the multi-year contracts generally signed with commercial platforms, this will probably take time to become visible), however, it is likely that all universities are reviewing their medium term strategies and the choice of MOOC platforms will be part of that review. The open universities in Europe, which are strong education providers with a track record of open and online education, have come together to offer their own platform, albeit of a portal to MOOCs rather than a single MOOC DLE (‘OpenupEd’), and, with the support of the European Commission, this has taken on something of a supra-national MOOC platform role (http://www.openuped.eu/).

For those working with more than one platform, they will be operating a regular decision process to decide which MOOC is placed where. It is likely that MOOC platforms would prefer, or might even try to mandate, to be the sole platform for any given MOOC, and may indeed seek ‘high impact MOOCs’ rather than leave that to the provider’s preference. The media and press take great interest in this area, looking for dissatisfaction with platforms or partners (Straumsheim, 2013).

Alongside the diversifying university MOOC providers are now also small or specialised higher education institutions (e.g. IE Business School, Berklee College of Music), and agencies/organisations with cultural/educational missions such as The British Library, the World Bank. Some of these join as partners of universities and some join in their own right. It is likely that high ranking organisations in the non-university category will be increasingly sought after by MOOC platforms as the number of high ranking universities which are potential partners decreases. Analysing Coursera data, we can see that so far the majority of partners beyond the original universities are in the US (83%), and a similar profile seems to be emerging with Futurelearn and universities in the UK. So far edX has not recruited beyond the traditional partner base, with perhaps the one exception of a school of music (Berklee), and indeed edX website lists its partners under the heading of ‘Schools’ (which itself is a very US expression), whereas Coursera, Futurelearn and OpenupEd list theirs under the heading ‘Partners’.

**Decision-making in potential MOOC providers**

Universities and other MOOC providers have generally made limited public statements about their reasons for joining MOOC platforms, although press and media interest in this has brought some information into the public domain (Haywood, 2012). The decision as to whether to offer MOOCs at all, regardless of platform, has clearly been, and remains, high on the agenda for senior management teams in universities around the world. For the major MOOC platforms, it is the institution that joins as a partner, rather than individual faculty, although examples of MOOC platforms open to individual faculty do exist (e.g. Coursesites, iversity), and may be quite problematic for universities to manage risk and reputation if faculty use them. The MOOC management process,
centralised vs devolved, mirrors that for open educational content on sites such as YouTube and iTunesU.

As far as we can determine there are two main university approaches to managing MOOC creation and delivery: tight central control and investment versus highly devolved, faculty-led. We might call this the degree of ‘institutional cohesion’. In the former cohesion type, in which the University of Edinburgh sits, there is a strong management process that approves, funds, oversees and administers the MOOCs that are proposed by faculty, and indeed may search or ‘commission’ MOOCs from a strategy viewpoint (‘a good MOOC to offer would be...’). Most European / UK universities offering MOOCs seem to be of this type, perhaps reflecting this style of management even in quite devolved research intensive universities. A similar process probably also operates in SE Asia and Australia/New Zealand. The mission-led, strategic, risk-management viewpoint is apparent. The US model is generally more of the highly devolved type, reflecting a stronger academic School independence, although even here the need for risk management, funding and central MOOC administration have demanded strong senior management engagement. The contracts with MOOC platforms provide an insight into this dichotomy of responsibility: Is the MOOC the ‘property’ of the university or the faculty? Who signs off the agreement on the third party IP liability? Coursera has a tendency towards the individual faculty whereas Futurelearn tends towards the institution.

We see these main general reasons (unranked) to offer MOOCs or to refrain from them:

### Institution-level reasons for offering MOOCs:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
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<tbody>
<tr>
<td>Reputation boost as innovative organisation</td>
<td>Potential direct income from MOOCs, eg certificates, books</td>
<td>Potential indirect income from MOOCs eg fee-paying student recruitment</td>
</tr>
<tr>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>Basis for educational R&amp;D for taught online programmes</td>
<td>Basis for educational R&amp;D for on-campus programmes</td>
<td>Stimulates academic debate inside university about pedagogy, online and in the classroom</td>
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<tr>
<td>G</td>
<td>H</td>
<td>I</td>
</tr>
<tr>
<td>Stimulates academic debate inside university about future of HE</td>
<td>Opportunity to collaborate with peer universities, locally or internationally</td>
<td>Opportunity to collaborate with key groups/organisations (for example alliances, government agencies, non-governmental organisations)</td>
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<tr>
<td>J</td>
<td>K</td>
<td>L</td>
</tr>
<tr>
<td>Response to political pressure</td>
<td>Fun! Adds an excitement to learning and teaching</td>
<td>Belief in open education and aligns with existing open activities</td>
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<tr>
<td>M</td>
<td>N</td>
<td></td>
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<tr>
<td>Desire to expand outreach to individuals not otherwise accessing (own) university education</td>
<td>Desire to outreach to disadvantaged individuals</td>
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### Institution-level reasons against offering MOOCs or for waiting:

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<tr>
<th>O</th>
<th>P</th>
<th>Q</th>
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<tbody>
<tr>
<td>First mover advantage is waning</td>
<td>Too high risk a venture if (confidence in) local expertise weak</td>
<td>Faculty / unions are opposed / wary</td>
</tr>
<tr>
<td>R</td>
<td>S</td>
<td>T</td>
</tr>
<tr>
<td>Board / council opposed / wary</td>
<td>No appropriate platform for pedagogy intended to be used</td>
<td>Minority language university - faculty not competent / confident to teach in major world language</td>
</tr>
<tr>
<td>U</td>
<td>V</td>
<td>W</td>
</tr>
<tr>
<td>Likely only to produce MOOCs in subjects already in good supply</td>
<td>Cannot see likelihood of large enough audiences</td>
<td>Cannot see adequate return on investment for the effort involved, eg opportunity cost of faculty time</td>
</tr>
<tr>
<td>X</td>
<td>Y</td>
<td>Z</td>
</tr>
<tr>
<td>Exclusivity of existing platforms, no option to join desired platforms</td>
<td>Opposed to idea of offering high value educational materials openly due to loss of control</td>
<td>Regard MOOCs as poor pedagogy, with quality below acceptable standard for university</td>
</tr>
<tr>
<td>AA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of funding stream / priority to devote to this activity</td>
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We derived these possible benefits and drawbacks/barriers from a combination of our own analysis of the discussion inside the University of Edinburgh, validated through discussions with wide-ranging contacts across many colleagues inside and outside the MOOC-sphere and through analysis of public documents and statements.

At the University of Edinburgh we have been open about our reasons since the beginning when the press began to ask us questions in the wake of our announcement on joining Coursera, and later Futurelearn (Parr, 2013, Parr, 2014). We felt it was better to have our real reasons in public than have ill-informed and sometimes cynical speculation. Our reasons were, and remain: reputation (A), educational R&D (D, E), outreach (M, N), partnerships and fun (K10). Different members of the university will have their own view of the rank order of these reasons; for the authors D, E & F are uppermost, and with K (fun) as a strong motivator.

Drawing upon public evidence, and on personal conversations and discussions with colleagues in the senior teams of our peer universities, we can see mainly the same reasons being given, although with differing emphases. In some cases, financial return (B & C) was also anticipated beyond that of the cost of developing and delivering the MOOCs, and as a consequence a few universities invested directly in MOOC platforms, for example in Coursera (Stanford University, University of Pennsylvania) and in edX, where Harvard and MIT made multimillion dollar investments. Investing in spin-outs is part of their general approach to commercialisation of faculty and student ideas and funding MOOC platform companies may mostly be an example of following this pattern, although offering wider access to their education is amongst other reasons given.

Some clear examples exist where high ranking universities have decided not to offer MOOCs, at least for the present, and their reasons appear to be mainly faculty opposition (Q), Board or Council wariness (R), and poor pedagogy in MOOCs (Z). Amongst the wider university community, especially in countries still trying to (re-)build their higher education, lack of resources/priority (AA) are likely to predominate, with minority language being a barrier for many in non-Anglophone countries until recently (T).

For individual faculty, and their academic departments, some of the reasons for and against will be the same as those for their university as a whole, but in addition we have seen a desire amongst faculty at Edinburgh and elsewhere to promote their own academic subject more strongly, to achieve some of the status accorded to the early academic entrants (‘rockstar’), and a wish to strengthen their CV. We are aware of some anecdotal evidence that being part of a MOOC team has had some personal career benefit for faculty, adjunct faculty and for TAs, and books, charity donations and sustained community networks of interest have also appeared. These spin-offs are likely to grow with time, although early adopter benefits may remain strong.

The reasons why faculty become interested in developing and offering MOOCs are as varied as those of their universities. Through conversations with the faculty involved in our 30 MOOCs, both offered
and under development, we can identify the following as the main reasons for involvement, with more than one applying in many cases:

a) Promotion of their academic subject
b) Personal reputation gain within the university
c) Personal reputation gain externally, with peers in their academic community
d) Wish to promote own teaching materials, such as textbooks and software
e) Wish to promote a research project to a wider community (impact, dissemination)
f) Wish to carry out ‘citizen science’ with the learners on a MOOC
g) Generally interested in educational developments and innovation
h) Wish to see how to use MOOCs for enhancement of on-campus (residential teaching)
i) Wish to see how to use MOOCs for enhancement of taught online education
j) Wish to earn income for academic department
k) Wish to earn income for self (depending upon remuneration scheme in operation)
l) Recruited/volunteered by colleagues to join MOOC team (essential skills needed)
m) Recruited/volunteered by senior manager(s) onto MOOC for strategic reasons

In broader conversations these reasons seem to be widespread. The reasons why faculty decline to become involved are perhaps harder to uncover, perhaps because for many faculty they prefer to remain silent or absent from discussion about a topic where a negative view might be uncomfortable to hold. In some instances, collective negative views about MOOCs have been expressed by faculty, mainly in the US (CHE, 2013, Kolowitz, 2013).

Creating, delivering, sustaining & closing MOOCs

The world of MOOCs is an agile world. The normally slow-paced traditional academic governance and course production processes are not well suited to the rapid pace needed to take maximum advantage of the opportunities offered by MOOCs. At Edinburgh, we found that there were several aspects of entering this world that demanded speed: the decision to enter/refrain from offering MOOCs; the selection of which potential MOOCs to offer (perhaps more importantly which to decline); the MOOC production cycle, and the academic approval processes around curriculum design. Adopting a fast approach entails taking risks, due to lack of time to reflect as fully as might be wished.

Making a decision as to whether to offer MOOCs has demanded speed for several reasons – regular media/press interest in whether or not your university is joining this ‘online revolution’ which requires a cogent and careful answer; the same questions from Councils/Courts; competitiveness between universities to be in the vanguard, especially when political interest rises; and the need to accept promptly an offer to join a MOOC platform for fear that it may not be repeated if declined, or may not remain on the table if not responded to promptly. This is not to say that speed has to be accepted as the price to pay to be amongst MOOC providers, but that pressure for speed may well be felt by those in the decision-making seats. At Edinburgh, we made our in principle decision to join Coursera, in the early days of the MOOC platforms, in a time period of several days, which puts the process alongside such decisions as unexpected major research grant or building purchase opportunities, and in a different timeframe for that deployed when deciding new courses or
degrees. This timeframe may be more familiar for senior academic managers and less familiar to faculty, and sometimes this may be the cause of some disquiet on the part of the latter.

Fast decision-making requires agile governance; offering MOOCs has some of the features needed for successful innovation within organisations as described recently by John Kotter (2012). The key actors need to understand governance well enough to be able to operate it at speed, and at Edinburgh we based our governance for MOOCs on that used to help us manage major non-estate projects by classifying them into strategic, major and minor depending upon their potential impacts, risks and costs. Interestingly, unlike most major projects, including our substantial expansion of taught online Master degree programmes at the University of Edinburgh, the costs of MOOCs are very low in comparison to their potential impacts and their risks. The toolkit we use can be found on University Projects website.

Our rapid deliberations around whether to offer MOOCs, in partnership with Coursera in early summer 2012 when the company was very small, focussed mainly on reputational risk and exit strategy. Our governance methodology guided us to consult our top level body, University Court (which was strongly supportive), our extended senior management team, and our student association. The speed of the process meant that a wider discussion with faculty via academic schools and Senatus was not feasible, and at that stage we were unclear quite what offering MOOCs would mean, at what scale we might expand to, and how a return on the investment might be ensured. Because the MOOCs were not credit bearing, we decided on a ‘light’ course approval process by taking the curricula for the MOOCs to our top level Senatus committee (Curriculum and Student Progression), and at the same time ‘educating’ them about the nature of MOOCs and their implications. As this committee has the academic leads from the Colleges plus members of the University senior team, this was felt to be sufficient curriculum oversight for what we in essence, short extension or lifelong learning courses. We agreed to do the same with the quality assurance (QA) process, and take the outcomes of each MOOC (eg data on enrolment and departure, satisfaction with the course) to the top level Senatus committee (Senatus Quality Assurance).

At the present time, and perhaps for some time, the decision to cease offering MOOCs or to leave a particular MOOC platform, especially if it is high profile, will be even harder than joining, and will require particularly careful governance and management. We discovered that even our decision to join Futurelearn whilst also a partner in Coursera provoked strong media interest, as they tried to work out if we were unhappy with Coursera (we were not, and are not unhappy) or were hedging our bets on possible differential success of the two platforms (again, this wasn’t a reason – we felt they offered us different and complementary affordances in terms of the peer network and audience coverage). The leaving decision is likely to be a relatively slow process in universities and other MOOC platform partners unless forced by a radical change in the MOOC platform.

For the faculty, speed is a key ingredient in getting them on board with offering MOOCs as they want their ideas to reach maturity as quickly as possible, partly through concern that ‘someone else will do the same MOOC first’, and partly because the faculty who want to create MOOCs are drawn from the pool of innovation leaders who have ideas and drive, in research as well as in teaching. They don’t want to be bogged down in red tape and procedure, which would contrast poorly with the excitement of offering short, open courses to the world. Thus selection of MOOCs, rapid agreement
on which will be supported, short timescales to development to launch, have proved important to us in our MOOC programme at Edinburgh and with colleagues in our peer universities with whom we have talked. This requires strong leadership to control number, quality and funding for MOOC choice and development for the best return to the university, plus a significant commitment of administrative time to manage the ‘gateway processes’ between the university and the MOOC platforms (legals, copyright clearance, disability compliance). For universities deciding to join more than one MOOC platform, these gateway processes can constitute quite a significant effort, and the additional decision-making around which MOOC is placed on which platform can be quite challenging if faculty disagree with the gatekeepers!

In many respects, the decision to become a MOOC provider is the easy part – living up to the decision, and delivering a portfolio of high quality online courses, is much harder and lasts for a considerable time.

Costs, benefits and return on investment of MOOCs

Throughout 2012 a regular media and press question was: ‘What does it cost to develop a MOOC?’ (Haywood et al, 2013, Grainger, 2013, Morrison, 2014). This was mirrored by similar queries to us from colleagues in universities which were themselves considering joining a MOOC platform. A rough consensus has emerged amongst those universities prepared to offer comment on this subject, and that is a single MOOC costs around US$50k, varying on complexity and duration (they are generally 5-12 weeks long, with mode of 7 weeks, Bayne & Ross, 2014). That cost may not include start-up activities which often require the establishment of a dedicated video production service (as it did for us in Edinburgh) and also often not the cost of senior staff time (which we have found to be substantial if maximum value is to be extracted, see later). Thus we estimate that a portfolio of approximately 30 MOOCs will require investment of between US$1M and US$2M to create and deliver them over a three year period. For large research-intensive universities, which were the original entrants into MOOCs, this is a very small percentage of their annual turnover (e.g. for Edinburgh approx. 0.15%), although for universities in less strong financial positions this could be viewed as a significant sum to invest. Clearly, much of the income of these universities is restricted, being research funding and so we should perhaps approximately double the percentage to reflect disposable income (therefore for Edinburgh 0.3% total, or 0.1% per annum). The great majority of this cost per MOOC comes from faculty time committed to their development and delivery, and so comes from ‘sunk costs’, although the consequent opportunity cost in faculty time of producing MOOCs did feature in our Edinburgh senior management team’s consideration of how many MOOCs to offer (perhaps not in excess of 40), and how to manage the process of selection and development.

The actual and foreseen benefits to us from offering our first six MOOCs have proven to be real and diverse, and in some important respects different to those that we anticipated at the outset (Haywood, Macleod & Woodgate, 2013). Our reasons for joining Coursera have been, or are being, justified, and beyond:

Reputation: We have had substantial reputational gain from our first six MOOCs, through for example, one that is very innovative in pedagogy, one that has high ‘retention’, and two that are being re-used by others. This has not come by being passive and ‘letting the MOOCs do the work’.
We have been assiduous in speaking to and writing for the media, the press, at conferences and with key leaders in the UK and worldwide, offering consistent messages; that has been demanding for junior and senior colleagues alike.

Educational R&D: into this broad area we can put substantial increases in educational research, expanding our already strong presence; design and testing of an online course for TAs in MOOC support; experimentation with different types of short, focussed video for MOOCs, that can be re-used, and even with a video-less MOOC; gains in confidence about how best to use crowd-sourced support and large scale peer review in humanities and social sciences subjects; an understanding of how to create a sense of high faculty ‘touch’ in MOOCs in the most efficient way; a different insight into learning analytics and development of the skills and toolset for wider deployment (Knox & Bayne, 2014, Knox et al., 2012, Knox et al., 2014).

Increased interest in online learning: some faculty have switched from being neutral to very interested in online learning as a consequence of their experiences offering, or even thinking about, MOOCs. This interest applies to both taught fully online courses as well as better use of technology in on-campus courses. We had mainly expected that the ‘usual suspects’, already well ahead with taught online courses, would be the main drivers of MOOCs, and in the early stages that was true, although probably substantially because they were ‘targeted’ to be our spearhead entrants. This is a very welcome additional benefit, as it aligns with our University intention to expand online education across all levels of the curriculum and all academic subjects towards our 2025 vision.

Recruitment: we have clear evidence that a small (as a fraction of total enrolments) number of individuals have enrolled on Edinburgh postgraduate courses following their positive experiences with our MOOCs, and some less robust evidence that undergraduate applicants are aware and influenced by MOOCs. As the income from student fees is a significant element of the university’s budgets this is a welcome development, and even a small additional enrolment can bring important fee income. Other universities have also reported similar outcomes, eg University of London International for its distance learning programmes (Grainger, 2013).

Outcome agreements: our national (Scottish) HE funding agency requires statements from universities about what they will do in the coming year in key areas, such as the student experience and widening participation. We have been able to bring our MOOCs into those agreements (SFC, 2014) and in so doing to step beyond the more traditional approaches, including MOOCs for community development and action (eg, social justice, sustainable energy).

Nevertheless, we are very aware that the return on investment (ROI) for the first six MOOCs may well not hold true for the next 20 or so, as the number of MOOCs and platforms increases, duplication of MOOCs grows, press and media interest wanes and, perhaps, political attention wanders. To get a continuing high ROI, especially on 2nd and subsequent offerings of each MOOC, we shall have to work on (ie put cost into) promoting our MOOCs, making them as high quality and innovative as possible, getting interesting stories to the media, and aligning our use of open courses with the national/regional political agenda for higher education. We will lower production costs due to a smoother, better tuned process, but design and production time will always be relatively high.
given the nature of online learning courses. Colleagues at EPFL in Switzerland call it the “MOOC Factory” (EPFL, 2014). In many ways, this feels quite far removed from the fun of the early days!

**Where next with MOOCs at the University of Edinburgh?**

As of the end of 2013, the University of Edinburgh has 7 MOOCs that have been offered at least once (6 on Coursera, 1 on FutureLearn), 4 that have been offered or used more than once, and 24 that are due to be launched before mid-2015. Each will have a minimum lifespan of 3 years, and so at present, the latest point for us to ‘gracefully’ cease offering MOOCs would be mid-2018, i.e. six years from the initial decision point to begin offering them.

A clear trend, and perhaps a surprisingly rapid development given the generally slow transition into online learning for many research-intensive universities, has been an exploration by many universities of ‘other ways to use MOOCs’ – or MOOC-plus as we shall describe it as a convenient shorthand. We are no exception, and have begun to explore opportunities to use our MOOCs in other than the ‘standard’ way, to use MOOCs from other institutions, and to create collaborative, inter-university/organisation MOOCs (Bartholet, 2013).

Moving in this direction has required us to review our governance and management processes for MOOCs to ensure that they are appropriate, and we are planning the road to mainstreaming MOOC creation and deployment into the normal academic processes. This will place decisions about whether to offer a MOOC(s), and the curriculum approval and post hoc QA firmly in the academic School and in the review processes through subject-level Boards of Study to the Senatus committees. Financing MOOCs will also become more devolved, with less central funding and more responsibility to assess the value of the business case within the School. This may have risks that the university-wide benefits of MOOCs may not be sufficient to encourage School-level investment.

Central support for video, instructional design will remain, although this will move from a ‘special forces unit’ into the core University technology-enhanced learning team, which will promote better cross-talk between those supporting technology in on-campus, taught online and MOOC courses. Senior management team responsibility will transfer from its current position with the current SMT member (VP/CIO/Librarian) to the Vice Principal (=Provost) for Learning and Teaching. The university will still manage the access to the MOOC platforms and the strategic and operational relationship with them.

There is a real challenge for us in carrying out this mainstreaming; we still need the ability to be agile if particularly important MOOC opportunities arise and we invested more rapidly in MOOCs than we traditionally have in core technology for learning and teaching, so a normalised funding stream to remove barriers to MOOC construction will be required. A recent Senatus meeting for faculty about online learning raised no challenges or adverse reaction to our explorations, giving us confidence that we have our faculty with us in this area of innovation.

So where will MOOCs take us as a university sector? Can we see any trends in early 2014 that might enable us to predict a few years ahead?
It seems likely that the number of MOOC platforms will continue to rise, and perhaps, importantly, beyond the Anglophone / Roman character set countries. One MOOC platform has appeared in the Gulf region (Rwaq) [http://www.rwaq.org/] and the it would be surprising not to see others there, and in the Indian subcontinent, China and SE Asia. Some of these will emerge from universities, some privately/commercially and some government sponsored/funded (MOOCs.co, 2014). Within the existing platforms recruitment of new university and agency/organisation partners continues, and so as each offers a portfolio of MOOCs, the total number of MOOCs will continue to rise. The desire of each university and platform to distinguish itself from the others and establish some form of unique selling proposition (USP) will increase diversity in the range of subjects, study levels and pedagogical approaches on offer. We can observe this now in the actions of the existing dominant platforms to offer features such as ‘mobile first’, ‘specialisations’, ‘practical and career-oriented subjects’. The search for new audiences will drive platform SMTs to market more intensely and with greater focus, especially if competition from regional and local platforms ramps up. Some platforms may well close, having found no viable business model. They will leave their partners with MOOCs but without a platform, which they may well find uncomfortable, especially if joining another platform proves difficult. Hedging bets by joining more than one platform may become the order of the day.

For universities not currently offering MOOCs, the expansion of platforms offers a chance to enter the field, albeit, for those that join existing markets, with limited expectations for enrolments and global brand enhancement. By contrast, they may take a different approach, and look to operate with lower costs and target to more local markets, and be more focussed on recruitment into fee-bearing courses than the early wave of entrants.

One thing is certain, MOOCs will be here for several years to come. Their impact on the way that we in higher education, and perhaps those in policy and government circles, think about the way that university education can be designed and delivered will have changed. We should work to ensure that the changes are for the better.

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