

The creation of sustainable business models for massive open online courses (MOOCs) is one of the most discussed and contentious issues that have arisen so far in MOOC history. The initial MOOC developments that have taken place have in many cases been funded by either venture capital or by grants from institutions or foundations. Much of the work that has been done has been openly experimental and although the major platforms claim confidence about their ability to recoup costs through a range of different business models, evidence of this is, at present, scant.

The picture is made more complex because the motivation for providing MOOCs is varied and, as we have seen in the case studies, a single university will describe a range of different motivations for providing MOOCs, all of which are being tested out at the same time. This tends to muddy the waters and makes it difficult to identify many examples of clear cost–benefit analysis.

However, there is an emerging body of experience, not least in those institutions that were interviewed as part of the research for this publication. There is certainly a great deal more clarity about the costs of developing and providing MOOCs than was previously available, and also as more MOOCs have been planned, created, and launched, there is more detail that can be shared about the motivation for MOOCs and what has been discovered so far about the business models that may underpin them.

As we know, initial investment in the first MOOC platforms has come from two main sources: either venture capital from the commercial sector (for Coursera and Udacity) or investment from universities and foundations (for edX and FutureLearn). This investment has been made with the assumption that, at some point, it will be possible to put in place sustainable business models that will work effectively both for the MOOC platforms and for their partners.

The MOOC platforms have openly discussed the kinds of revenue streams that they expect to tap into, based upon the “freemium” model—where content is provided for free, and charges are made for optional, ‘premium’ services.

We summarize below the main “monetization” options that are being tested out by the main MOOC platforms. The main models that are being used currently are:

- charged-for certification—generally costing around £30 or US\$50;
- secure assessments—a more stringent level of testing and certification, generally costing around £90 or US\$150;
- charges for recommending third-party services, for example, directing students to Amazon books.

Other models that are also being explored but are at an earlier stage of maturity are:

- licensing of MOOC content to other educational institutions, for example, to use in delivering credit-bearing courses;
- employee recruiting—brokering links between MOOC students and potential employers;
- tutoring services to give personal support to MOOC students.

Below, we summarize the current business models that are being explored by the main MOOC platforms, and identify the financial benefits that a university partner can expect to receive from them.

Udacity business models

Udacity started out by experimenting with the same business models as the other main players, expecting to recoup investment through certification and selling “premium” services to students. However, in late 2013, Udacity decided to fundamentally refocus its activities to concentrate upon working with the corporate training market, rather than working with universities ([Chafkin, 2013](#)).

Udacity has committed to continuing to provide content to students freely, but concentrating its development upon charged-for services such as tutoring, testing and accreditation, and sponsored partnerships with training providers. As noted earlier, its most radical educational experiment to date has been to partner with Georgia Tech University and the telecoms provider, AT&T, to offer a master level degree in computer science at a greatly reduced price when compared to its equivalent traditional, on-campus experience ([Onlink, 2013](#)).

What is in it for the university partner?

The details of the financial arrangements between Udacity, its commercial and academic partners have not been made available publically. Given this change in direction, it seems unlikely that Udacity will offer many opportunities for universities and colleges in the future, other than for a select few who match the limited criteria that Udacity demands. So their business models are less directly relevant to our discussion here.

It will, however, be very interesting and informative to observe the success or failure of their new approaches, particularly as they blur the boundaries around free and open courses and test out some innovative business models working with different types of partners.

Coursera monetization options

These monetization options are those that Coursera has publically stated will be explored by them and that may form part of current and future routes to income generation. This list is taken from a sample contract that has been made available to the

public through the Chronicle of Higher Education's Web site, and which was drafted for the University of Michigan.

“Coursera Monetization Options
Certification
Secure assessments
Employee recruiting
Employee or university screening
Human-provided tutoring or manual grading
Corporate/university enterprise model
Sponsorships Tuition fees” (Young, 2012)

What is in it for the university partner?

For each of these models, the platform provider will take the largest proportion of the income. Precise figures depend upon the arrangements that are put in place, as Coursera enters into specific contractual arrangements with each university partner on an individual basis. However, from analysis of the arrangements that have been put in place to date with Coursera's partners, the partner's proportion of income generated through these models described above is usually between 6% and 15% of income. More recently, Coursera has announced that it will offer an additional, charged-for service called ‘Specializations’, where a student can take a set of MOOCs that follow a particular subject area, and use them to get credit for a more substantial qualification (Kolowich, 2014). Coursera is looking to work with commercial organisations, such as Google, to accredit these qualifications with a capstone course (Lapowski, 2015). It is not yet clear what the implications of this will be for universities.

edX financial arrangement options

EdX is experimenting with two different financial arrangements for how it works with its partners.

Option A: the University Self-service Model

In the self-service model, courses are created by the university partner with no course creation input from edX. Courses are not quality assured by edX either, so they are branded as “Edge” courses rather than full edX courses, until an edX quality assurance process has been carried out.

What is in it for the university partner?

Under the self-service model, there is no charge made to the institution for inclusion of their course on the edX platform until income is generated. When income is generated, edX receives the gross revenue from the course up to \$US50,000 for each new course that is offered. For each time the course is repeated, edX will receive an additional \$US10,000.

Beyond this income level, that is, once the first \$US50,000 have been made, the university will keep 50% of any additional gross revenue.

Option B: the edX-Supported Model

In the edX-supported model, course production is supported by edX in return for a payment to edX of \$US250,000 per course. There is also a charge of an additional \$US50,000 for each time that the course is offered.

What is in it for the university partner?

If the university uses only this model, it will receive a minimum of 70% of any income generated.

There are other arrangements in place where the University can choose to combine the two models, or can choose to switch between them. In each case, a different model will apply for how income is calculated.

A sample edX contract is available online at

<http://chronicle.com/article/Document-The-Revenue-Sharing/137429/>.

FutureLearn business models

FutureLearn's public statements about business models have been that it will be focusing in the first instance upon the needs of learners and partners, in order to create "an excellent product" and that they fully expect sustainable business models to arise because of the quality of their offer. "Producing an excellent product is our primary motivation. In an evolving market, the development of sustainable business models is always a challenge but I believe that if we build something great, a whole range of business opportunities could come our way" (FutureLearn, 2013).

More specifically, FutureLearn is experimenting with some of the same models that the other platforms are using. This includes charging for certification, where students who have completed at least 50% of the MOOC are able to buy a Statement of Participation which is signed by the lead academic on the course, for £24 (US\$40).

FutureLearn is also experimenting with proctored examinations, where the student takes an examination based upon the content of the MOOC, set by the partner university, at an examination center that is local to them. The service is run by an experienced third-party provider, the global testing network Prometric, through its over 10,000 examination testing centers which are spread across the globe, in 160 countries. The current charge to students for this service is £119 (US\$200).

What is in it for the university partner?

FutureLearn is taking a different approach from the "big three" in terms of the model that they are using to give a share of revenue to their university partners. Their current approach is to reward financially those institutions that attract students and where students complete

the MOOCs. Universities that run MOOCs where high numbers of people register and complete the MOOCs will receive a higher percentage of revenue (not income) is generated through certification and other services. There is a sliding scale of revenue returned to the university partner depending upon the success of its MOOC when it is ranked with all other FutureLearn MOOCs. The scale varies from about 20% of revenue generated, for the top 10% of MOOCs, to 10% of revenue generated, for the least popular MOOCs.

This is an innovative business model and it will be very interesting to see how successful it is, both for generating reasonable income for its university partners, and also for the sustainability of FutureLearn itself.

Partners of FutureLearn comment upon the interesting challenges that lie ahead for FutureLearn in becoming sustainable. It seems unlikely that FutureLearn will ever attract the very high number of users that use Coursera, for example, as they have already got market lead, brand awareness, and high market share. So business models that depend upon selling premium services, like accreditation and examination, to small percentages of very large numbers of students, will not scale up as well for FutureLearn and other platforms, and the figures may simply not add up. It is likely to be a similar situation for some of the other, emerging MOOC platforms.

Given these conditions, and as the MOOC market continues to develop and mature, it will be interesting to observe whether the FutureLearn partners decide to “stay local” and stay with FutureLearn, if they are also offered the opportunity to join one of the other platforms, which can perhaps offer access to far greater numbers of potential students. Equally, will the restrictions placed upon the FutureLearn partners that arise naturally from being part of a large consortium, for example, having to use a particular platform with its specific models for how learning is supported and how content is hosted, be perceived by some as too restrictive, perhaps leading some of the more confident partners to either set up their own MOOCs, or to work with other partners (including a range of nonuniversity and commercial partners)?

We also should bear in mind that FutureLearn is a commercial entity and not part of the not-for-profit university sector, and as a commercial operation it will have its own motivation for making decisions about its current and future business, and which of many possible business models it chooses to pursue. It is reasonable to assume that at some point, these may not align entirely with those of some or all of its partners. So it is likely that we will see flux and change in the membership of FutureLearn—and indeed, of all the large MOOC platforms—as experience grows and business models are refined.

One thing is certain at the current time is that the FutureLearn partnership has already proven itself to be a highly successful collaboration between a diverse group of institutions that are generally more likely to be competing with each other rather than collaborating, certainly on such a public and large-scale venture. We are perhaps seeing a maturing of awareness and understanding in the leadership of some universities, which recognizes that although competition is a strong and perhaps necessary part of the current global higher education ecology, it is possible to combine collaboration with competitors, such that it brings benefits to all parties.

As discussions about cost reduction and sustainability of higher education institutions continue over the coming years, it will be fascinating to see whether this kind of mature relationship may lead to other shared ventures in the online learning sphere, and also in

related areas, such as shared services, collaboration around curriculum, facilities, and so on. There is a great deal of potential here but the requirement for some new approaches to partnership and business models has to date mostly prevented a high level of collaboration. Experts such as Tony Bates are discussing the competing forces that make collaboration around online learning so challenging (e.g., see [Bates, 2014](#)).

Revenue generation options for universities who provide MOOCs

Offering accreditation

Accreditation is clearly one of the key areas of interest and potential stumbling blocks for institutions, particularly when the protection of the university brand and its core offer are of such primary importance to many.

Early though we are in the genesis of MOOCs, we have already been able to observe a whole set of misconceptions about accreditation that has been rehearsed, tested, and then disproven. The original assumptions of many, including leaders of the major MOOC platforms, were that accreditation would be a major influence and differentiating factor for MOOC students, who would have a strong motivation to be accredited for their MOOC learning, and that this would naturally create a significant income stream for the platforms and their partners.

Through 2012 and into 2013, as evaluation data from MOOC students and take up rates for the new certification and accreditation offers became known, it became clear that these were not proving to be the main motivation for most MOOC learners, and indeed were seen as more or less irrelevant by many.

As we saw in the case studies, accreditation is an issue that all MOOC providers are considering, but that most are treating carefully as the likely level of take up in the future is so unclear.

Charges for certification

Many universities are comfortable with providing charged-for certification, through a “statement of achievement,” “statement of accomplishment,” “certification of completion,” or similar. This will generally be made available to the students if they have completed more than a specific proportion of the MOOC course and attempted at least some of the assessments. The certificate will probably include details of the course taken and the name of the university, and may be signed by the lead educator. In general, universities are comfortable with this arrangement and, as described above, they receive some financial benefits from it.

Accreditation

Accreditation is a different issue. In almost all cases, accreditation will come from the platform and not from the university. Where this is provided by the MOOC platform

rather than the institution, the university will usually receive a small percentage of the income generated. Most institutions are comfortable with this model because it does not threaten to undermine the quality of their brand or compete directly with their traditional, accredited courses.

Any university that plans to accredit online learning itself needs to think carefully about the pros and cons of this, to plan carefully for appropriate quality assurance procedures, and to consider the possible impact on its existing income streams. As several universities noted during interviews, it is very important to their strategy to keep a clear divide between their traditional, accredited courses and MOOCs, at least at this stage of development.

Proctored examinations and other forms of summative assessment

A further option that can be made available is to offer formally proctored examinations. In most cases, these will be offered through a third-party service provider rather than by the university or MOOC platform itself. There is a range of service providers that are able to provide this option to universities. Universities will need to include planning for the setting and marking of the examinations in their planning processes. Income generation from formal examinations needs to cover the costs of using third-party services for proctoring.

So we can see from this analysis that there are various approaches to certification and accreditation that can be put in place that will lead to income generation for the institution. Income levels will clearly depend upon the level of take-up by MOOC students, and data about take-up is still inconclusive.

Beyond these obvious business models, there are other income generation models that may apply, where the institution may access the benefit of creating and providing a MOOC. We have provided a summary of some of the main models that are being explored currently in the next chapter.

Converting MOOC students to fee-paying courses

This model is one that is being tested and explored by many of the institutions that are currently engaged with MOOCs and is a model that is often cited as one of the potential (though, as yet, largely unproven) possible benefits that MOOCs may bring. It features in the case studies that we have included in this book as a model that is being explored by many different types of institutions, and one which seems to be proving itself as successful. There is limited evidence to date about the level at which the level of conversion from a MOOC student to a fee-paying student is occurring at a level which would justify the investment in the MOOC, but there are some examples that are worth referring to and examining.

The **University of London** (UoL) began to offer MOOCs through the Coursera platform in 2013. It is one of the few MOOC providers that has written up its first MOOC experiences into a published report, and as such is a valuable source of intelligence.

UoL states that one of its explicit aims in terms of business models was to explore the conversion of students from its MOOCs to undergraduate courses. In its September

2013 report, it states that “just under 35 students have indicated on their University of London International Programmes application form that they took one of our four MOOCs before applying for a full degree programme” (Grainger, 2013). These students were attracted from over 210,000 initial registrations, which translated into 90,000 students who were active in their first week.

These statistics need, of course, to be looked at in the context that the students are self-reporting and may not represent all of those who applied for the University of London International Programmes; nor can they include students who may subsequently apply for UoL programmes. They also need to be looked at in the context of what level of conversion the UoL would consider to be sufficient to meet their sustainability needs, for example, whether they would seek to completely cover all MOOC production costs through increased enrollment and whether they would seek to cover costs in one instantiation of the MOOC or spread the costs over a number of reruns of the MOOC. However, looked at starkly, the conversion rates represent a very small percentage of successful conversion and the income generated seems unlikely to cover anything but a small proportion of the costs incurred in MOOC production. We should bear in mind also that the University of London International programme is an experienced provider of online and distance learning, having run distance-learning courses since the nineteenth century, and as such is in a stronger position to market its undergraduate programmes to a MOOC audience than many other institutions.

The **University of Tasmania**, has been successful in recruiting students to its “Understanding Dementia” MOOC, (<http://www.utas.edu.au/wicking/wca/mooc>), which has run several times and recruited over 10,000 students. What has been particularly interesting about this MOOC is that it has seen very high levels of student retention, with nearly 40% of registrants completing the MOOC—substantially higher than on most MOOCs, which typically see completion rates of up to 10%, and often only around 5–7%. Following the first completed MOOC a significant percentage then transferred to the fully online Bachelor in Dementia Care which is a fee-charged, fully online course.

This example is particularly useful because the “Understanding Dementia MOOC” is offered directly by the University of Tasmania, rather than through a MOOC platform. So one conclusion that we can draw from this example is that if a university offers specialist MOOCs in an area of strength, and particularly where they have a strong online offer, then the conversion rate may be high.

These are just two examples of business models that are at least partly based upon the conversion of students. As we have noted, MOOCs are at an immature stage of development and it is premature to draw too many conclusions from the experience to date. However, we can see that already there is some potential to encourage student applications for fee-paying courses by offering them the opportunity to participate in related, free, and open courses in a MOOC format.

Benefits of engaging with students through MOOCs

Perhaps more compellingly, if we think about the longer term, there are potentially more sophisticated approaches to engaging with students through the MOOC that may hold real benefits to both student and university. These benefits might include helping students

to understand more about the subject that they are interested in studying and how it is taught at this particular institution, which might lead to better match between student and course and hence lower dropout rates. There is also the possibility of some level of “prescreening,” where participation in the MOOC is used to support the student’s eventual application to a formal course, and may even form part of the evidence for their application. Clearly, there are many issues to think through around the second model in particular, but there are possibilities here that it will be useful to consider as MOOCs mature, and in particular as we are able to use data collection and analytics to understand more about the choices that students are making about university applications.

Some of these models are beginning to be explored by universities in practice.

The **University of Sheffield**, for example, is running a MOOC called “Discover Dentistry” which is aimed specifically at people who are considering applying to study dentistry at university, and explicitly wants to help potential students to apply for dentistry courses, with the aim to “reach even more students, potentially equipping thousands of aspiring dentists from around the world for their dental school application” (Belfast Telegraph, 2014).

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