

The opportunists

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The University of D is a research-intensive institution with a strong international research profile and high-quality undergraduate and postgraduate provision. The University is one of the few in the country to establish an overseas campus some years ago, and this now runs successfully, with a range of undergraduate programs offered to students living and studying in a Middle Eastern country.

There has for some time been a strategic imperative to increase the sense of the University as a single institution, in particular to bring the different groups of undergraduates into more regular contact with each other, to enhance the sense of the University providing an authentic cultural experience to its overseas students.

Previously, the University has investigated opportunities to offer undergraduate modules across the different geographic campuses, but found that time-zone differences and also the differing term dates made this very difficult to put in place. However, their recent experience with online education made experts in the University think about the potential of offering an online learning experience that could be opened up to all students, and also to University staff, who are based in all the locations where the University delivers its courses.

So these two factors came together in the development of what now might be described as a particular type of MOOC, a Small, Private Online Course (SPOC), but which at the time was seen as an experimental institution-specific venture.

This online course drew upon materials that had been created under the previous, externally funded program and supplemented them with other openly licensed materials that had been produced by other organizations. The materials were combined into a course sequence, and most importantly, were given structure and coherence by a set of interactive online activities, typical to a MOOC – a combination of asynchronous and synchronous discussion opportunities and online assessments. It was hosted on the University's own learning management system, which was considered to be robust and reliable enough to support the likely level of usage, and also importantly had in place appropriate mechanisms to manage user accounts and permissions to access materials that were needed for an internal, private course.

This early SPOC was very well received by students and staff alike and nearly 1000 individuals signed up to participate when it was first run, and several hundred more when it was rerun only a few months later. This experimentation meant that the University was in a place of experience and familiarity with some of the main issues related to course subject selection, design, platform choice, and implementation, when the MOOC bubble appeared on its strategic planning horizon in 2012.

Imperatives for investing in MOOCs

The imperatives for investing in the creation and delivery of MOOCs have been largely driven by the University's commitment to its ethical agendas. It has had a long-standing commitment to the open transmission of knowledge wherever this is viable, as exemplified by its commitment to open education. This relates closely to the University's mission to encourage participation and engagement with the University by as broad a group of students as possible. The MOOC movement was considered by the Vice Chancellor and senior team as a way to further reinforce these two missions, and to also demonstrate in a public, international forum their expertise and experience in open, online learning.

A secondary but nonetheless important imperative is to use the MOOC as a way to engage greater numbers of teaching staff in online learning, many of whom have no real experience of either teaching online or participating as an online learner. The University wishes to upskill its teaching staff so that there is a base level of understanding of online learning and its use to support a high-quality student experience, and the MOOC is considered as an effective way to help achieve this.

MOOC activities to date

The interest in MOOCs by the University's Vice Chancellor and members of the senior team has exerted a high level of pressure for the University to respond quickly and in the 'right' way to the MOOC opportunity. The local team of experts has been able to build upon their experience of a MOOC-like activity to quickly plan and create their first MOOCs. Yet even despite the high level of preparedness that was in place, it has been a challenge to meet the fast speed required to put in place a potentially large-scale, open, and externally facing MOOC of sufficient robustness and quality. Many new processes needed to be developed in order to ensure that the MOOC course had the right content, structure, and academic support for the externally facing course.

The infrastructure and systems also were reviewed before going ahead. Given the potentially huge number of students that might be recruited to a fully open MOOC, and the risks associated with opening up the local learning management system to an unknown group of users, it was not considered viable to use the local systems to host the MOOC.

Fortunately, parallel, political discussions had begun when the University was approached by several of the MOOC platforms and invited to become partners in their respective ventures. Evidence shows that students often move to a second or subsequent MOOC that is offered by the same platform, even though it is provided by a different institution, and Coursera currently provides access to many millions of current students with a much broader geographic spread than some of the other platforms. After long discussion and debate, the University made the decision to join Coursera based upon the established and well-tested nature of the platform and the large community of Coursera students that had already been recruited.

To date, the University has developed two MOOCs that are hosted by Coursera and are in the process of choosing which subjects to focus upon for a further two MOOCs. It is considering whether to also join another platform but it has not yet made a final decision about this.

Governance and decision making

The decision to engage was taken by the Vice Chancellor and then delegated to the Pro-Vice Chancellor for Teaching and Learning to lead a high-priority project to select the right partner to work with, and to oversee the development of the MOOCs. The MOOC project has been discussed regularly at the VC's weekly senior team meetings, and the senior team supported the decision to go ahead.

The other decision-making and consultation bodies of the University, Senate, and the Board of Governors were not involved in making the decision, but they have been kept informed and are supportive. This is an unusual situation but one that is not unknown, particularly for time-critical strategic projects such as important new partnerships or commercial ventures.

The MOOC development has gone through a much faster development lifecycle than most initiatives at the University, being completed over about 8 months from first idea to having first course ready. This is much quicker than usual, perhaps by about an year. Overall during the MOOC project, all decision making has been much quicker than usual because the mandate to engage with MOOCs has come from the very top of the institution. This has meant that resources were found quickly to support the MOOC project, rather than there being a need to engage in standard processes to make a case for the work and to bid for internal funds. It will be useful to evaluate this particular approach to review whether there are more general lessons that can be learned about the University's ability to respond to important opportunities.

Resourcing

Costs to date are estimated at about £30,000 (US\$50,400) per MOOC—though this varies quite considerably, depending upon a number of factors such as the amount of material that already exists in digital format, the copyright situation, and complexity of multimedia that is required. This cost does not include all the academic time that is used to support the delivery of the MOOC. Initial funds were found from unallocated central funding and allocated by an internal planning committee, following a bid from the Pro-Vice Chancellor for Teaching and Learning.

Funding for the development of at least two more MOOCs has been set aside and a process is underway currently to decide which courses to focus upon. There is likely to be a spread of subject areas and level of study, with emphasis upon MOOCs that prepare young people for studying at undergraduate level and areas of research strength.

Academic resources for the MOOC creation and support have come from the academic schools. A really positive approach has been taken by the leadership in the academic schools, with genuine commitment to the MOOC project. The model that has been adopted has been to develop teams within the schools to develop and work on each of the MOOC. In the team, there is one clear lead academic; in the current cases these are relatively junior but very talented academic staff, who have a strong interest in innovative teaching, and are on the 'teaching excellence' academic track. Crucially, the academic leads are supported by the faculty education directors and heads of school who have supported them personally and provided a lot of their own time into advising on the MOOC content, format, and support model.

Another useful resource that has been put in place is a peer support model between the two academic leads for the MOOCs, who have met regularly to discuss the approach that they are each taking to the development of 'their' MOOC. This had led to some creative approaches being taken and greatly improved the quality of the MOOCs and is seen as particularly valuable as it has encouraged transfer of approaches across academic areas, something that is hard to achieve in traditional teaching situations. The University will attempt to replicate this peering model with its future MOOCs.

Staffing for the technical development of the MOOC project is coming in the main from the e-learning team that is already in place. There is a lot of specialist expertise in place that has been developed over time due to the University's interest in learning technology and open education, and there are strong teams with expertise in video production that have been brought in to work intensively on preparing the MOOCs. The different individuals involved in the MOOC creation and development are already experienced and used to working together collaboratively on similar projects, and this has meant that they have been able to 'hit the ground running.'

Quality assurance

The University is taking quality assurance very seriously. It is building upon its previous experience of developing online materials to develop a new model for how MOOCs will be quality assured. This work is being led by the Pro-Vice Chancellor for Teaching and Learning.

Quality is being defined as having a range of parameters, that is to include academic quality as well as a range of quality measures that apply at a more technical and process level. The model is based upon and similar to the standard University module approval processes, and it is important that the processes are at least as rigorous and thorough as for traditional courses. There is recognition that the context for quality assurance is different for MOOCs than for traditional provision. The University is attracting a much wider audience than for traditional courses, and there will be much less direction interaction between the University and the MOOC students, so this will impact on the quality of the student experience.

In order to address this, the quality assurance model will include extra quality controls that are specific to mode of delivery that is being used, and in order to

ensure that, extra measures relating to the technical environment are put in place. For example, there will be further controls put in place around production quality for both video and audio production. There are interesting quality issues to resolve for video in particular, which will need to be addressed in the guidelines. Many of the MOOCs created elsewhere have included very high-quality video, not dissimilar in production value to the quality of commercial broadcast video.

There may be questions to address, though, about the extent to which all the MOOC materials really need to be of this very high level of quality, particularly given the significant cost that is then incurred. However, balanced with an awareness of cost-benefit is a desire to provide consistently high standards, particularly for the first set of MOOCs that are being released, as there is a perception within the University senior management team that the MOOC will be subject to strong scrutiny, not only by MOOC students but also by the media and by competitors.

So there will be some interesting issues to resolve as the quality assurance model develops and is implemented, and some of these issues may only be finally resolved after the MOOCs have run at least once. It may be that the University will gradually find a sense of its own 'brand values' for the online courses, in the same way that they instinctively adopt particular branding and identity for publishing and marketing materials—as with print materials, there may be questions about the message that may be communicated about the values of the organization, if all course materials are too 'glossy.'

For this institution, prelaunch testing has been included as an important step in the quality assurance approach. Traditional students will be involved in testing of the MOOC materials before they are released and academic staff will also peer review the materials to assure the quality of the content. Final sign-off will be made by the senior steering group that is overseeing the MOOC project.

Implementing a formal testing process is a different approach from some other institutions who consider the MOOC to be adequately tested by 'live' students as part of the first time that the course runs, as happens with traditional courses. The advantage of the MOOC environment is that they are able to make quick improvements to the materials in response to issues that are raised by students, rather than carrying out testing before launching the MOOC. This fits comfortably with the ethos of 'agile development' that forms part of the culture of open online learning, though perhaps does not sit quite as comfortably with some of the corporate University values and processes. In fact, it challenges some of the standard practices that have been developed and refined over many years. Should online learning adopt all the same processes as for mainstream courses, thereby potentially missing out on some of the benefits afforded by being able to quickly create, test, and update course materials? Or should they be created using a parallel but specific set of processes—in which case, does this threaten to undermine the credibility of the traditionally slow, mainstream processes, and will members of the academic community be happy to still follow the slow course development track, when they have experienced a faster, more responsive approach—and one that seems to work at least as well? There will be major issues for the University to address as its MOOC project continues and becomes more mainstream.

Student experience

The University has run one MOOC successfully and is now rerunning it for a second time. The learning from the first scheduled running of the MOOC has been extremely valuable and has led to many and varied insights into student behavior and student expectations.

The first MOOC had a huge intake of students, with about 18,000 registered for the MOOC. About 50% of the students registered when the MOOC was first announced and publicized by Coursera, and the remainder registered in subsequent weeks, with a peak in volume of registrations in the final week before the MOOC began—which coincided with another round of promotion and publicity. Some students also registered once the MOOC had already started; the ‘admissions processes’ do not preclude people from joining the MOOC at any point.

Coursera is able to provide the University with fairly detailed data about how the MOOC materials have been used during the lifecycle of the course. This data has revealed some interesting and perhaps surprising facts about the way that the students on this particular course interacted with the materials and with each other.

The student engagement or retention rate followed a pattern that has emerged to date as fairly typical for all of the large-scale MOOCs. Of the 18,000 students who registered initially, only half actually logged in to the course materials when the MOOC started. It is extremely easy, and of course cost-free, to register for any number of MOOCs and there are no penalties incurred by someone who registers for an MOOC and never takes it. So it is perhaps reasonable to assume that quite a significant part of the population might casually register for an MOOC when it is first publicized, but then later make the decision not to actively participate.

In this case, then, the ‘real’ student cohort can be considered to have immediately reduced from 18,000 to about 9000. Statistics show that this number continued to drop over the coming weeks until about 10% of the original intake, about 1800 students, completed the whole course.

These statistics may seem stark and even discouraging, but the University does not perceive it in this way. One thousand eight hundred students is still a very significant population of people who have engaged with the University over a period of time and in a very active way. This number far outstrips the typical intake for even the most popular undergraduate program—in fact, it is five times as many students in a single intake as the most popular course would recruit in a whole year.

In addition, the University is open-minded to the nature of the engagement that a MOOC student has with the course. It considers that the MOOC model is in very early stages of development and is immature. At present, most MOOCs are being run as 6–8 week courses with several hours study per week, and an implicit expectation that a student will want to follow the course through from start to finish, working sequentially, and with a consistent level of interest in all the materials. However, in reality, this may not be the way that people want to work with MOOCs; they may be far more individualistic about their motivation for engaging with MOOCs and so take a far more personalized approach. MOOC learners may not, in the main, be motivated by needing to complete a whole course and receive the relevant accreditation or certification. If this

is the case, why would they need to complete all the materials, unless they really want to? The University is trying to not restrict its understanding of what is happening in MOOCs by limiting its thinking to traditional expectations around student motivation and student behavior.

For this reason, it has already decided to offer some so-called ‘mini MOOCs’—MOOCs that have a more limited timespan, typically about 3 weeks of study, and a more limited level of time commitment, typically about 2h per week—to test out whether there is a cohort of students who would prefer this shorter, lighter-weight course—and to investigate whether this then impacts on completion and retention rates. The mini-MOOC has yet to run but the feeling so far is that this is an interesting format that offers a different set of opportunities for both student and teacher.

The data also reveals some patterns about how students interacted with each other in discussion. About 10% of the original intake population contributed to discussions about the course materials—probably though not definitely the same 10% that completed the course. The course team has reviewed the discussions that took place to look at the quality of discourse and were really pleased with the level of discussion. They believe that this was facilitated by the active approach to facilitating discussion that was taken by the course team, in particular the postgraduate students who were employed as a formal part of the course team.

There is a sense in which the combination of motivated students with a real interest in the course subject area, the right course materials, and, perhaps most importantly, the right approach to encouraging engagement with the course by supporting discussion has led to the formation of a new online community. The proof of this is that at the end of the course, the most active cohort of students has also migrated in large numbers from the MOOC platform and now continues to interact through a dedicated online discussion group that is run through a social media platform.

Accreditation

The University does not plan to offer accreditation for any of its MOOC courses. As with other universities, it does not want to confuse the issue of accreditation for fee-paying courses, which are a specific and very different offer to the student, with what is gained through informal, unaccredited courses. It is, however, exploring opportunities to work with existing partners who may offer accreditation instead.

Partnerships

At present, the University has no concrete plans to offer MOOCs jointly with partners or to become partners in another MOOC platform. However, there are ongoing discussions about opportunities for partnership around MOOCs and online learning and also with existing partners where there may be mutual benefit in exploring an online venture. There is no reason why they might not consider joining other partnerships in the future; any partnership will be different and offer a different set of benefits and opportunities.

Future strategy

A full strategy is still to emerge and will depend upon the learning from the current experience of running both private, closed courses (SPOCs) and the large-scale, fully open MOOCs. At this stage, the University is committed to running both types of course, as they see strategic benefits in each. Work is underway at present to plan the next phase of SPOC and MOOC development, and a range of different subject areas are being proposed for inclusion in each type of online environment.

The University has learned from experience to be careful about which courses to select for development. It plans to take a highly focused and strategic approach to the development of both SPOCs and MOOCs, focusing on topics that are either of key importance for the University's mission, such as sustainability, or building upon areas of real strength in the University's research portfolio. Allied to this is the recognition of where there are really talented and articulate researchers who are well suited to the MOOC medium—and an understanding that there are some academic staff who seem to be less suited to 'fronting' a MOOC, during this experimental phase at least.

Key points

- Universities may have a particular agenda for creating MOOCs that serve the needs of a particular audience, such as overseas students who study at remote campuses.
- MOOCs present a particular opportunity for these kinds of institutions, as they provide a way to offer a new learning experience for all their students, who are located on different campuses around the world. They may find it better to restrict their audience by offering a Small Private Online Course, rather than opening the MOOC up to everyone.
- There is potential to reuse the same course model and content to run more than one type of MOOC and to cross-fertilize ideas from each to the other, gradually developing a portfolio of different course types.
- Whether to host an SPOC or an MOOC needs to be carefully considered because of issues of robustness of the technical platform when used by unknown but potentially very large numbers of students and authentication and access systems.