5.6: Why MOOCs are only part of the answer

5.6.1 The importance of context and design

I am frequently labelled as a major critic of MOOCs, which is somewhat surprising since I have been a longtime advocate of online learning. In fact I do believe MOOCs are an important development, and under certain circumstances they can be of tremendous value in education.
But as always, context is important. There is not one but many different markets and needs for education. A student leaving high school at eighteen has very different needs and will want to learn in a very different context from a 35 year old employed engineer with a family who needs some management education. Similarly a 65 year old man struggling to cope with his wife’s early onset of Alzheimer's and desperate for help is in a totally different situation to either the high school student or the engineer. When designing educational programs, it has to be horses for courses. There is no single silver bullet or solution for every one of these various contexts.

Secondly, as with all forms of education, how MOOCs are designed matters a great deal. If they are designed inappropriately, in the sense of not developing the knowledge and skills needed by a particular learner in a particular context, then they have little or no value for that learner. However, designed differently and a MOOC may well meet that learner's needs.

5.6.2 The limitations of xMOOCs

The real threat of xMOOCs is to the very large face-to-face lecture classes found in many universities at the undergraduate level. MOOCs are a more effective way of replacing such lectures. They are more interactive and permanent so students can go over the materials many times. I have heard MOOC instructors argue that their MOOCs are better than their classroom lectures. They put more care and effort into them.

However, we should question why we are teaching in this way on campus. Content is now freely available anywhere on the Internet – including MOOCs. What is needed is information management: how to identify the knowledge you need, how to evaluate it, how to apply it. xMOOCs do not do that. They pre-select and package the information. My big concern with xMOOCs is their limitation, as currently designed, for developing the higher order intellectual skills needed in a digital world. Unfortunately, xMOOCs are taking the least appropriate design model for developing 21st century skills from on-campus teaching, and moving this inappropriate design model online. Just because the lectures come from elite universities does not necessarily mean that learners will develop high level intellectual skills, even though the content is of the highest quality. More importantly, with MOOCs, relatively few students succeed, in terms of assessment, and those that do are tested mainly on comprehension and limited application of knowledge.

We can and have done much better in terms of skills for a digital age with other pedagogical approaches, both on campus, such as problem- or inquiry-based learning, and online using more constructivist approaches in credit courses, such as online collaborative learning. However these alternative methods to lectures do not scale so easily. The interaction between an expert and a novice still remains critical for developing deep understanding, transformative learning resulting in the learner seeing the world differently, and for developing high levels of evidence-based critical thinking, evaluation of complex alternatives, and high level decision-making. Computer technology to date is extremely poor at enabling this kind of learning to develop. This is why credit-based classroom and online learning still aim to have a relatively low instructor:student ratio and still need to focus a great deal on interaction between instructor and students.

However xMOOCs are valuable as a form of continuing education, or as a source of open educational materials that can be part of a broader educational offering. They can be a valuable supplement to campus-based education. They are not a replacement though for either conventional education or the current design of online credit programs. As a form of continuing education, low completion rates and the lack of formal credit is not of great significance. However, completion rates and quality assessment DO matter if MOOCs are being seen as a substitute or a replacement for formal
education, even classroom lectures.

5.6.3 Undermining the public higher education system?

The real danger is that xMOOCs may be used to undermine what is admittedly an expensive public higher education system. If elite universities can deliver MOOCs for free, why do we need low quality and high cost state universities? The risk is a sharply divided two tier system, with a relatively small number of campus-based elite universities catering to the rich and privileged, and developing the knowledge and skills that will provide rich rewards, and the masses being fed xMOOC-delivered courses, with state universities providing minimal and low cost learner support for such courses. This would be both a social and economic disaster, because it would fail to produce enough learners with the high-level skills that are going to be needed for good jobs in the coming years – unless you believe that automation will remove all decently paid jobs except for a tiny elite (bring on the Hunger Games).

Content accounts for less than 15 per cent of the total cost over five years for credit-based online programs; the main costs required to ensure high quality outcomes and high rates of completion are spent on learner support, providing the learning that matters most. The kind of MOOCs being promoted by politicians and the media fail spectacularly to do this. We do need to be careful that the open education movement in general, and MOOCs in particular, are not used as a stick by those in the United States and elsewhere who are deliberately trying to undermine public education for ideological and commercial reasons. On their own, open content, OERs and MOOCs do not automatically lead to open access to high quality credentials for everyone. In the end, a well-funded public higher education system remains the best way to assure access to higher education for all.

5.6.3 The potential of cMOOCs

cMOOCs have the most potential, because lifelong learning will become increasingly important, and the power of bringing a mix of already well educated and knowledgeable people from around the world to work with other committed and enthusiastic learners on common problems or areas of interest could truly revolutionise not just education, but the world in general.

However, cMOOCs at present are unable to do this, because they lack organisation and do not apply what is already known about how online groups work best. Once we learn these lessons and apply them, though, cMOOCs can be a tremendous tool for tackling some of the great challenges we face in the areas of global health, climate change, civil rights, and other ‘good civil ventures’. The beauty of cMOOCs is that they every participant has the power to define and solve the problems being tackled.

Scenario F that ends this chapter is an example of how cMOOCs could be used for such ‘good civil ventures.’ In Scenario F, the MOOC is not a replacement for formal education, but a rocket that needs formal education as its launch pad. Behind this MOOC are the resources of a very powerful institution, that provides the initial impetus, simple to use software, overall structure, organization and co-ordination within the MOOC, and some essential human resources for supporting the MOOC when running. At the same time, it does not have to be an educational institution. It could be a public health authority, or a broadcasting organization, or an international charity, or a consortium of organisations with a common interest. Also, of course, there is the danger that even cMOOCs could be manipulated by corporate or government interests.
5.6.5 In conclusion

Having said that, there is enormous scope for improvements within the public higher education system. MOOCs, open education and new media offer promising ways to bring about some much needed improvements. Scenario F (next) is one possible way in which MOOCs could bring about much needed social change.

However, MOOCs must build on what we already know from the use of credit based online learning, from prior experience in open and distance learning, and designing courses and programs in a variety of ways appropriate to the wide range of learning needs. MOOCs can be one important part of that environment, but not a replacement for other forms of educational provision that meet different needs.

Activity 5.6: Strategising about MOOCs

You are the Vice President Academic of a middle sized research university, which is under financial pressure. The President has been asked by the Board to come forward with a strategy for innovation in teaching and learning, with the university facing a cut of approximately 5 per cent in next year’s operating budget.

One powerful Board member is pushing really hard for the university to develop MOOCs as a solution to the economic pressure..

The President has asked for a briefing paper from you for the Board on what the university’s strategy should be regarding MOOCs, and how they would fit into the overall strategy for teaching and learning. How would you respond?

Since there are many pros and cons regarding MOOCs, I am not going to give direct feedback on this activity, because the ‘best’ briefing will take account of local contexts, such as existing online provision for credit courses, learning technology support and enrolment goals, for instance.

Chapter 5: Key Takeaways

1. MOOCs are forcing every higher education institution to think carefully both about its strategy for online teaching and its approach to open education.

2. MOOCs are not the only form of online learning nor of open educational resources. It is important to look at the strengths and weaknesses of MOOCs within the overall context of online learning and open-ness.

3. There are considerable differences in the design of MOOCs, reflecting different purposes and philosophies.

4. There are currently major structural limitations in MOOCs for developing deep or transformative learning, or for developing the high level knowledge and skills needed in a digital age.

5. MOOCs are at still a relatively early stage of maturity. As their strengths and weaknesses become clearer, and as experience in improving their design grows, they are likely to occupy a significant niche within the higher education learning environment

6. MOOCs could well replace some forms of traditional teaching (such as large lecture classes). However, MOOCs are
more likely to remain an important supplement or alternative to other conventional education methods. They are not on their own a solution to the high cost of higher education, although MOOCs are and will continue to be an important factor in forcing change.

7. Perhaps the greatest value of MOOCs in the future will be for providing a means for tackling large global problems through community action.

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5.6.6 Next

This completes the discussion about different design models for teaching and learning. The next chapter looks at the importance of building an effective learning environment in which these different design models can best operate.

But first, Scenario F, which envisions what MOOCs could look like in the future.