EdTech Europe 2015

Teaching in a Digital Age
Sir John Daniel
(Chair: UWC International Board)

Introduction

You have asked me to talk in a practical way about how education is moving online. I cannot do better than to borrow the title of a brilliant eBook published this year by my fellow Vancouverite, Professor Tony Bates, *Teaching in a Digital Age*.

I see teaching in a digital age from contrasting vantage points. As Chair of the United World Colleges International Board I am engaged in secondary education through the global network of 14 UWC institutions – soon to be 15 when we open in China this autumn.

No one would call UWC a pacesetter in the use of digital technologies. Much the same applies to the International Baccalaureate Diploma that all our institutions teach – as do thousands of other schools. There are debates in both UWC and the IB about how they should teach in a digital age but – and some of you may contest this – I find hostility to teaching through digital technologies in both – for different reasons.

My other vantage point is quite different. I am a veteran of 40 years involvement in open and distance learning at postsecondary level, including eleven years as vice-chancellor of the Open University here in the UK. Moreover all my current personal learning projects are digital. I have just completed my fifth MOOC from the FutureLearn consortium.

The question I shall leave with you is why has distance learning has increased access to postsecondary education massively but done so little for the tens of millions of youngsters deprived of secondary education.

MOOCS and their legacy

MOOCs, Massive Open Online Courses, are my entry point into the topic.

One of the many virtues of Tony Bates' book that I just mentioned is that he puts current trends in an historical perspective. MOOCs are a current manifestation of a long tradition of idealism about making knowledge and opportunities to study open to people everywhere. This was expressed, for example, through the creation of UK Open University in 1969. There are now open universities in many countries,

We can distinguish three strands in the trend towards openness, the longstanding movement towards open source software, the increasingly successful campaign to ensure open access to the results of research, and the more recent phenomenon of Open Educational Resources.

In the late 1990s MIT started putting its lecturers' course notes on the Web. In 2002 UNESCO held a Forum that coined and defined the term Open Educational Resources for this phenomenon.

Then in 2012 UNESCO organised a World OER Congress. It issued the Paris Declaration on OER. Its key paragraph was to encourage governments and institutions to make educational materials produced with public funds available under open licences.

This recommendation is being more and more widely followed. For example, the province of British Columbia, where I live, now offers free, online open textbooks for the 40 most popular postsecondary courses. This saves each student $150 a term on textbooks.

OER were also the fuse that detonated the MOOCs explosion. Open resources lead naturally to open courses. And a MOOC is a Massive Open Online Course.

When MIT called a free course a MOOC it started a craze. MOOCs dominated news coverage of higher education in 2012 in North America and were widely hailed as a revolution. Let's look at its first offering.

With 155,000 registrations it was certainly **massive**; it was **open** in that it was free, but free as in free beer, not as in free speech. In fact the materials in most early US MOOCs were not explicitly open educational resources, so they were closed in that sense. It was offered **online** worldwide. Was it a **course**? Not really. If you took and passed all the tests, which very few learners did, you could pay for a certificate of completion but you certainly could not get credit to use in any regular programme at MIT.

That is the first snag with the use of digital technologies to reach very large numbers. MOOCs are not really higher education, because higher education does not just require teaching and learning, but also the awarding of useful credentials.

Since those early days MOOCs have evolved rapidly. Many organisations now work with institutions to offer MOOCs. This expansion has produced much greater diversity. This slide, noting that the meaning of every letter in the acronym MOOC is now negotiable, has become famous!

According to a count done by the European MOOCs observatory there were some 4,000 MOOCs on offer around the world at the end of 2014. This means that it is now hard to generalise about all MOOCs. Few are now really massive, although FutureLearn and the

British Council have just set a record by registering close to 400,000 learners in their MOOC on English-Language Teaching.

So much for the story of MOOCs as MOOCs: but what about the bigger picture? MOOCs are going to change postsecondary education in more significant ways than the offering of a few thousand MOOCs. What will be the legacy of MOOCs? Fashions pass, needs change and technology evolves. What will MOOCs lead to?

Technology Cycles

Let's put MOOCs in context by recalling general truths about new technological developments. The Gartner Hype Cycle captures the sequence of enthusiasm, disillusionment and sensible adoption through which new technologies often progress.

This diagram represents the hype cycle. A new technology appears. It is adopted with enthusiasm until people realise that it does not do everything that they anticipated. At that point we reach the peak of inflated expectations. In North America MOOCs were on this peak in 2013. In 2014, although many new MOOCs were created, the pioneers began to slide down into the trough of disillusionment. Evaluation reports on MOOCs started to come in and institutions began asking why they were spending money on MOOCs but offering them to the world free.

But the slide ends. With other technologies the hype cycle usually leads out of the trough of disillusionment up a slope of enlightenment to a plateau of productivity. Moving up the slope of enlightenment will develop the legacies of MOOCs and, we hope, bring us to a plateau of productivity in online learning.

Another model of technological innovation, which complements the hype cycle, is Moore's Technology Adoption Cycle.

When a new technology appears it immediately attracts innovators and then a group of early adopters. With many technologies there is then a pause – labelled here as the chasm – before an early majority of potential users decide to join in.

Think of this technology adoption cycle as a pattern for the adoption of online learning generally. There has been a chasm in the adoption of online learning by institutions. This is not true of students, who seem to migrate to online learning as soon as it is available. However, many institutions have been reluctant to engage seriously with online learning for various reasons. One was the disruption it would cause to their normal operations. Another was the poor image of distance learning.

The most important impact of MOOCs has been to bridge that chasm. Nearly all institutions are now engaging seriously with online learning. This was because prestigious universities like Harvard, MIT and Stanford started the 2012 MOOCs craze. These institutions had no history of offering distance learning – and probably do not

intend to have a future of offering distance learning leading to degrees – but they jumped into online learning with MOOCs. Other elite institutions in the US around the world, which like to think of themselves in company with Harvard, joined in. This was a copycat phenomenon. There was a herd instinct at work. Everyone was following the leaders but few, including the leaders, had any clear idea why they were moving or where they were going.

So today, to use another animal analogy, there is a large flock of institutions offering MOOCs in various ways. But most are no longer simply copying Harvard and MIT. We are now in 2015 and the sheep have had time to think. They realise that there is no proven business model for MOOCs. MOOCs cost money to produce and offer, but little revenue comes back in return. But by offering MOOCs institutions have realised the power of online learning.

Tony Bates observed that in 2013 the teaching of regular programmes online finally came of age. Previously much online programming had been of poor quality but in 2013 institutions started to take it seriously and do a much better job. Many of the MOOCs sheep came to the obvious conclusion. The way up the slope of enlightenment after the experience with MOOCs lies in offering regular programmes online and getting much better at it as they strive towards the plateau of productivity.

So MOOCs are helping online learning to bridge the technology adoption chasm. We are now in a phase when an early majority of institutions are taking online learning very seriously.

Looking across the world, although it is impossible to get figures, it seems likely that the numbers of students taking regular credit courses online is already much larger than the numbers taking MOOCs, even though the MOOCs' numbers make the news. But that does not alter our point that MOOCs have played an important role in bridging the chasm between the early adopters of regular online learning and the majority of institutions. These early adopters have shown that online learning can be at least as good and often better than classroom teaching.

<u>…and Quality?</u>

The UK Open University, for example was ranked in 5th place for the quality of its teaching after a decade of assessments, discipline by discipline, conducted by the national quality agency in a hundred universities. For similar reasons this institution always comes near the top in the annual survey of student satisfaction that the agency conducts across this country.

If you want to explore issues of quality I recommend Tony Bates' book, which is downloadable as an Open Educational Resource. Also available as OER, and much shorter, are two guides that I helped to edit. The first, *A Guide to Quality in Online*

Learning, addressed quality in conventional online learning, that is to say courses and programmes that carry assessment and lead to credentials. Last year, given the great interest in MOOCs, we created a *Guide to Quality in Post-Traditional Online Higher Education.*

So I conclude with my question. Nearly fifty years of multi-media open and distance learning, including two decades of online learning, have dramatically expanded access to postsecondary education.

But the scandal of today's world is the millions of children aged between 12 and 18 who are not getting any secondary education. Can online teaching address that challenge?