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MOOCS, media, and the democratization of higher education

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Introduction

I like to be given a topic and a title instead of having to think of them myself and you have given me a good one. It sounds pedantic to define terms at the outset but I should at least tell you how I am going to unpack the phrase ‘democratisation of higher education’.

There are at least two ways of interpreting it and I will address both. The most common meaning of ‘democratising higher education’ is simply widening access to it. You can also unpack this into two elements.

One is simply that you bring a higher proportion of the population into higher education. This has happened dramatically in my lifetime.

When I was at secondary school in Britain fewer than 10% of the 18 to 22 year-old age cohort had access to higher education. Today the target is 50% and the notion of ‘age cohort’ has lost its meaning as learning becomes a lifelong imperative.

The OECD suggests that a 35-40% age participation rate in higher education is a necessary springboard for development today and China, in particular, has increased the scale of its higher education system dramatically with this target in mind. Most countries have similar concerns. South of the border President Obama wants to increase the proportion of the population with higher education qualifications towards the higher figure that we already have in Canada.

In some countries, of course, graduate unemployment is a problem. However, in such countries, with the possible exception of China, government policy is not to reduce access to higher education but to reform it so that it prepares people better for the labour market and for self-employment as entrepreneurs.

The other element of widening access, which resonates more directly with the term ‘democracy’ is to allow people to decide for themselves what, where and when they will study, instead of having higher education institutions select their students using their own criteria.

The second meaning of democratisation would have been considered laughable a generation ago, but media have changed all that. I mean here that students choose the content of their programmes, not just by picking a selection of courses with pre-determined content from a rich institutional prospectus, but instead by building courses themselves, drawing on the rich knowledge resources now available. Learning material on any subject is available to everyone today through the Internet.

This, of course, takes us into tricky territory. Scientific knowledge is not by nature democratic. We look to physicists to define good physics. We would not take a vote among the population at large to decide whether the results from the Large Hadron Collider really prove the existence of the Higgs Boson.

On the other hand we have only to consider Wikipedia to see that with appropriate structures the range of people who can contribute to the development of knowledge on a particular topic goes far beyond the guilds, specialties and professions that have traditionally appropriated it.

That is how I will interpret the purposes of the democratisation of higher education. I will show how media in general and MOOCs in particular can be methods to achieve them. I shall situate these developments historically because it media specialists in general, and educational technologists in particular, often talk as if the only important developments began the day before yesterday.

Widening access: a little history

I start, then, with widening access.

My focus today is on higher education and Saint Paul was not a university professor. However, in the interests of historical perspective we may recall that his letters to the young churches around the Mediterranean were an early form of distance learning using letters and donkeys as the media to carry the message.

Priests would read out the letters and provide commentary, perhaps with discussion. Saint Paul's system was open. There were no barriers to attending church and engaging with his thinking – unless the danger of being thrown to the lions during one of the periodic Roman crackdowns on Christianity discouraged you.

This became a powerful educational movement. We can argue about the relative importance of Saint Paul to the worldwide spread of Christianity, but without question his early system of correspondence education gave the church doctrinal consistency and later, with a new technology, doctrinal controversy. That new technology, printing, came over a millennium later. The fastidious hand copying of manuscripts was no long necessary. The written word came directly into the hands of ordinary people.

We call academics 'lecturers', recalling their role as oral intermediaries between the written word and students when books were scarce.

But by giving the written word to individuals printing introducing another important concept in the evolution of education across space and time: independent study. People could now make up their own minds about what a book meant, which led to the upheavals of the Protestant Reformation and less deference to authority. When I was at the Korea National Open University last year I heard a charming Korean saying that there is no nicer sound than the rustle of turning pages as someone reads a book late at night.

The broad impact of printing was a first example of the truth of the famous statement by Marshall McLuhan, who worked here in Toronto that ‘the medium is the message’.

The next key technological advance made the medium of print much more powerful. This was the development of railway networks in the nineteenth century. You could now move print rapidly and reliably over distance. Postal services were transformed.

When postal systems allowed documents to be exchanged more readily, education reacted quickly. The Penny Post, the first universal postal service, was introduced in Britain in 1840. Isaac Pitman exploited it immediately to teach shorthand by correspondence. He launched the commercial correspondence education industry, which defined distance education for more than a century.

Note that the blackboard was invented at the same time. It dominated conventional teaching for more than a century and is only now beginning to yield to new classroom technologies such as the whiteboard and the flip chart.

In the 20th century various new technologies came and stayed: radio, film, television, computing and computer assisted learning. Enthusiasts predicted that each new medium would revolutionise education. In 1940 the motion picture was hailed as the most revolutionary instrument introduced into education since the printing press. In 1962 programmed learning was the first major technological innovation since the invention of printing. Not long afterwards it was the impact of computers.

Note that these prophets all took printing as their touchstone, not the previous technological marvel.

Wise practitioners conclude from this story that there is no magic educational medium and doubt that there ever will be. No single technology is revolutionary but a combination can be. By the 1960s, the blending of technologies had begun to create a rich communications environment.

Bringing it all together: The Open University

At the foundation ceremony of the UK Open University in 1969 the Chancellor, Lord Crowther, captured this in these words:

“The world is caught in a communications revolution, the effects of which will go beyond those of the industrial revolution of two centuries ago. Then the great advance was the invention of machines to multiply the potency of men's muscles. Now the great new

advance is the invention of machines to multiply the potency of men's minds. As the steam engine was to the first revolution, so the computer is to the second."

It is hard to overstate the impact of the UK Open University. Established with strong political support it created a new synthesis of the technological, pedagogical and ideological strands of distance learning. This novel combination attracted worldwide attention.

The OU slogan 'open as to people, open as to places, open as to methods and open as to ideas' encapsulates this. You recall that my first interpretation of democratisation as wider access had two aspects: getting the numbers up and giving students the decision whether to enrol. There are no admission requirements for undergraduates – that is what 'open as to people' means.

Today the Open University has 250,000 enrolled students. Yet despite its size it ranks 5th, one place above Oxford, in national assessments of teaching quality. This slide is dated because in 2004 the elite universities, who hated this type of assessment, pleaded successfully with Prime Minister Blair to stop it!

Note also, and this is remarkable when you think about it, the Open University came top in last year's nation-wide assessment of students' satisfaction with their universities and it has never come lower than third in this annual survey.

So my first conclusion from the history of the Open University is that you can deliver high-quality education to large numbers using technology.

My second is that using media in education is an evolutionary process. The Open University has not changed its mission of openness to people, places, methods and ideas. However, between 1970 and 2010 the way that it expresses and implements those values has changed.

C.S. Lewis once wrote: "Humanity does not pass through phases as a train passes through stations: being alive, it has the privilege of always moving yet never leaving anything behind." That is an important principle to remember when we use media in education.

The media industries are particularly prone to what Lewis called 'chronological snobbery': the idea that what we are doing today must be the best. He reminds us that: "sooner or later, the present will become the past and the self-evident authority of those ideas will be eroded – unless that authority is grounded in the intrinsic excellence of those ideas rather than their mere chronological location."

In the context of these statements, a great strength of the Open University is that, in Lewis' words, 'it is always moving on yet never leaving anything behind'. In the 1970s it revolutionised correspondence education and used broadcast TV and radio to fulfil its mission. Today it is the largest presence on iTunesU, with 60 million downloads of its material in the last five years, one sixth of them in China.

So much, for the moment, on the meaning of democratisation as increasing access and letting people make their own decisions about admission.

Democratising course design: Open Educational Resources

I turn now to my other interpretation of democratisation, namely letting students determine the content of their studies through bespoke programmes and do-it-yourself course design.

Again, I start 40 years back because at the same time as the Open University opened the great American educator Ernie Boyer, who was then Chancellor of the State University of New York, set up Empire State College with the aim of opening up the curriculum.

It allowed students to work with mentors to invent their own courses of study. Its slogan ‘my degree, my way’ captures this perfectly. Empire State College established the principle that with sound mentoring students could design credible programmes and courses for themselves.

The great developments since then have been in the tools that students can use to do this, most particularly Open Educational Resources.

The notion of making academic content freely available for re-use and adaptation made news in the late 1990s when MIT started putting its lecturers course notes on the Web. This was the extension to learning materials of the idealism that had already inspired open source software and open access to research materials.

UNESCO held a forum in 2002 to explore the implications of MIT’s initiative for developing countries. The Forum coined the term Open Educational Resources defined them as educational materials that may be freely accessed, re-used, modified and shared.

Ten years on, exactly a year ago, UNESCO held a World Congress on OER. A set of recommendations on OER was developed through these forums and approved by acclamation at the Congress as the Paris Declaration. Its key recommendation – the punch line if you like – is to encourage the open licensing of educational materials produced with public funds. In the course of preparing for the World Congress we had commissioned a survey of all governments on state of OER policy and usage in their countries and an exploratory study on the Business Case for OER.

There are signs that some governments are already taking the Paris Declaration and the economic benefits of OER seriously. For example, my own home province of British Columbia will now offer free, online open textbooks for the 40 most popular postsecondary courses.

Having spent much of last year fostering governmental awareness of OER I am delighted by the progress being made. OER are an important development for all forms of education, not just distance learning. There is now a high volume of Facebook traffic among students recommending OER to each other.

MOOCs: where might they take us?

This brings me neatly to MOOCs.

MOOCs have generated more media interest in the use of technology in higher education than any development since the Open University. The question for us today is whether MOOCs contribute to the democratization of higher education as I have defined it – or indeed as you may wish to define it yourself.

Last fall, when I had the privilege of being a visiting fellow at the Korea National Open University I wrote a paper *Making Sense of MOOCs: Musings in a Maze of Myth, Paradox and Possibility*. I was lucky with my timing and it made the rounds quickly. Things have moved on since then but let me recall some basics.

A little history never comes amiss so let me start with the pre-history of MOOCs - which means going back five years! The term MOOC originated in Canada. The acronym was invented in 2008 to describe an open online course at the University of Manitoba designed by George Siemens and Stephen Downes. The course, *Connectivism and Connective Knowledge*, was presented to 25 fee-paying students on campus and 2,300 other students from the general public who took the online class free of charge.

The course title gives you its flavour. It was inspired by Ivan Illich's philosophy in his book *Deschooling Society* that an educational system should 'provide all who want to learn with access to available resources at any time in their lives; empower all who want to share what they know to find those who want to learn it from them; and, finally furnish all who want to present an issue to the public with the opportunity to make their challenge known'

In this spirit 'all the course content was available through RSS feeds, and learners could participate with their choice of tools: threaded discussions in Moodle, blog posts, Second Life and synchronous online meetings'. You can see that these courses were a logical development of the Open Educational Resources movement that had been gathering momentum for ten years by then.

These early MOOCs, which are now called cMOOCs (for 'connecting' MOOCs), are very different from the next phase of MOOCs that caused a media frenzy last year,

This next phase was called xMOOCs after edX, the MIT, Harvard and UC Berkeley consortium that is offering them. Those first xMOOCs had nothing to do with Illich's liberal educational philosophy. One writer said that xMOOCs are 'at the intersection of

Wall Street and Silicon Valley' and they have little relation to the pioneering cMOOC courses.

Some of the creators of cMOOCs forecast last year that with time the xMOOCs movement would return to some of their methods and philosophy and indeed, later last year MIT began, timidly, to connect its students in this way.

I was at Penn State University last week and found that their MOOC on *Art: Concepts and Techniques* has many cMOOC features as students share their work. Similarly the University of Edinburgh, one of the first universities outside North America to partner with the Coursera Company that helps institutions to MOOC, found that the Coursera format was 'conservative in terms of online pedagogical practice.

MOOCs are now evolving rapidly, leading one wag to remark that every letter in the acronym was now negotiable! This means that there are now exceptions to any generalisations I make about them, but I will make some anyway.

The first is that elite universities, which have always had scarcity at the core of their business models, are suddenly embracing openness.

The second is that MOOCs have horrendous dropout rates and very low pass rates. These are the figures for MIT's first MOOC. But all MOOCs have the same problem. These aspects may improve over time as the novelty wears off, because large numbers of those enrolled in the early MOOCs were tourists from other institutions checking to see what the fuss was about.

However, for many learners there is little incentive to complete a MOOC successfully, because the third feature I must flag is that most universities offering them do not award credit for them.

A fourth issue is the degree to which MOOCs are really open.

Martin Bean of the Open University sees MOOCs as one more step in the Open Educational Resources movement that I described. But MOOC pioneer George Siemens, in an upcoming speech, questions this. He points out that while MOOCs have open enrolment, many of the MOOCs offered through commercial partners do not have open licenses. It would be a pity if MOOCs were to act as a brake on the open education movement as Siemens fears.

So where will we end up when we find our way through the MOOCs maze? Will the current expansion of MOOCs offerings help the democratisation of higher education or send it into reverse? It is too early to say, but what are the factors in play? There is good news and bad news on several fronts.

The first potentially good news is that the excited press coverage of MOOCs has created greater public awareness of open, distance and online learning, at least among people with an interest in higher education. If Harvard and London are going online it must be

OK! However, this could become bad news as people discover that very few people complete MOOCs successfully and that even those who succeed do not get credit.

Further possible good news is that we finally have a new pedagogy in higher education to augment or replace the millennial tradition of lecturing. But this requires that MOOCs faculty work at refining their online pedagogy as a mainstream activity rather than a public relations sideline. Cynics see the little videos that are a standard feature of many MOOCs as massage for faculty megalomania rather than as a serious aid to student learning.

Institutions that make a serious commitment to MOOCs will, of course improve their performance, which is good news. However, while the commercial interests that help institutions to offer MOOCs have a business model, there is no obvious business model for institutions themselves and attempts to monetize Internet activity usually degrade the user experience. Copyrighting MOOCs content rather than making it available as Open Education Resources is a good example.

These upsides and downsides bring us back to the fundamental contradiction of MOOCs when we look at them through the lens of democratisation. That is the tension between claiming to offer courses openly while recruiting regular students selectively.

To use an agricultural analogy from my late Athabasca University colleague Dan Coldeway, elite universities admit students on the venerable principle of ‘good little piggies in, make good bacon out’. The key to getting a degree from elite institutions – and I went to two of them – is to get admitted. Call it a system of ‘difficult in, easy out’. For such institutions to adopt the opposite open-university principle, ‘easy in, difficult out’, and to get serious about helping large numbers of their MOOCs students to get credit would require a tremendous paradigm shift.

I stress that this shift is an issue of mentality, not of media, technology or practicalities, because the open universities have shown that you can offer degree-credit programmes to thousands of students successfully.

Conclusion

It is time to conclude. The democratisation of higher education requires, first, widening access to studies that lead to useful qualifications. Second, it means giving people more opportunity to select study programmes themselves, rather than being selected by institutions. Third it should become easier to design your own course from the rich pool of material freely available.

Online learning is a wonderful tool for progress on all three fronts. If present trends continue it will increasingly become students’ preferred means of study anyway, and institutions need to prepare for this.

Recently I have worked with a former UNESCO colleague, Stamenka Uvalić-Trumbić, and two South African experts, Neil Butcher and Merridy Wilson-Strydom, to develop a Guide to Quality in Online Learning. It was published last week in English and Chinese and free copies of the English version are available at this conference.

It was published by Academic Partnerships, a company that specialises not in MOOCs but in helping universities to offer their regular degree programmes online for credit to larger numbers of students. In a promising sign of the times Academic Partnerships published it as an Open Educational Resource under a Creative Commons CC-BY-SA license. This means that you are free to translate it, adapt it or modify it for your own needs without asking anyone's permission.

It draws on examples from all over the world, including Contact North here in Ontario, and we hope it will help the process of putting online learning at the centre of higher education.

Only by bringing online learning into the institutional mainstream will it contribute to the democratisation of higher education. Let us hope that MOOCs help rather than hinder that process!

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