

Open Education Models: Past, Present, Future



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Open Education Models: Past, Present, Future*

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Transcript

It is a pleasure to be here at UNISA and I am very grateful to Dr Dele Braimoh for giving me the opportunity to speak to such a distinguished audience. My special thanks go to Prof Narend Baijnath, who despite his several pressing commitments has made it a point to be here.

The University of South Africa is the oldest open university in the world. UNISA started its distance education operations in 1946 and was inter-racial even during the apartheid years. It is highly – rated in South Africa and is one of the world’s mega-universities.

I represent the Commonwealth of Learning, an intergovernmental organisation established by Commonwealth Heads of Government in 1987. Our slogan is ‘learning for development’. Our mission is to help Commonwealth Member States and institutions to harness the potential of distance education and Information and Communication technologies for expanding access to education and training.

We are the only Commonwealth organisation located outside the UK. The HQ is in Vancouver and we also have a small regional office in New Delhi. These are not our office premises, which are much more modest but rather iconic landmarks in both cities!

We are funded by voluntary contributions from Commonwealth Member States, and you’ll be pleased to know that South Africa, along with Canada, UK, India, New Zealand and Nigeria is a major donor.

This gives you a seat on our international Board of Governors—a seat presently occupied with great distinction by Ms Jenny Glennie, Executive Director of SAIDE.

You will be pleased to note that our current Education Specialist: eLearning Ms Trudi van Wyk is also a South African. In the recent past, we’ve had other South African colleagues namely Mr Vis Naidoo and Mr Paul West.

My topic today is ‘Open Education Models: past, present and future’. The term ‘open education’ is used in the widest sense possible. As we all know, that in a distance education context, it refers to policies and practices that permit entry to learning with as few barriers as possible. What are the different models that we have witnessed thus far?

I will first look at the broader historical context. I will then look at three generations of open education in order to provide a context within which the Open Education Resources (OER) movement emerged. As you know, OER are educational resources that are freely available and can be used by educators and learners without having to pay license fees or royalties. I will then give you examples of OER development that my organisation the Commonwealth of Learning supports and will finally raise some questions about the future implications of OER for the learner; for the teacher, for pedagogy and for higher education.

Let us first look at the beginnings.

The University of London, or the People's University, opened up education to people who would otherwise never have had the opportunity. It introduced the notion of higher education without boundaries in 1858—not just geographical boundaries, for its first external exams were held in Mauritius but also boundaries of social class, aspiring to reach the 'shoemaker in his garret'.

The External Degrees became an influential model of openness and played a highly significant role in the establishment of several African universities including the University of Ghana and the University of Nigeria.

Nelson Mandela and Thabo Mbeki are two of the most famous former students of the University of London's External system.

South Africa has had a long history of opening up access to education through its correspondence course institutes. You will recognise many of the names in this list which goes back a hundred years. In this model the primary technologies were print and post. As the name implies, correspondence education usually meant mail going in two directions: the institution mailed study materials to the student; and the student mailed back assignments to the tutors which would then be assessed and returned to the student. Borje Holmberg, called this process a 'guided didactic conversation', a pillar of good distance education practice.

For over a century, until the second half of the 20th century, correspondence education brought great benefits to large numbers of people. It continues to do so under the aegis of the Association of Distance Education Colleges offering courses at the secondary and tertiary levels, through 53 member colleges to over 200,000 students.

Let us now turn to the three generations of open education

Forty years ago, the Open University, UK was launched to open up education to large numbers of people. That was when the term 'open education' became popular and the model captured the imagination of policy makers around the world. The success of the British Open University led to a huge expansion in open universities, particularly in the developing world. Asia alone has over 70 open universities and the numbers continue to grow.^[1]

Lord Crowther, the founding chancellor of the Open University of the UK's statement of openness in relation to people, places, methods and ideas forms the basis of the first generation of open education. Open education is a philosophic construct that advocates the removal of constraints and

barriers to learning — Open education refers to policies and practices that allow entry to learning with no or minimum barriers with respect to age, gender, or time constraints and recognise prior learning. These policies need not be part of a distance education system, which refers to the separation of the teacher and learner. I will focus primarily on open education.

Open universities were oriented towards the massification of higher education. Many open universities do not insist on entry qualifications, allow learners to accumulate credits at their own pace and convenience and are flexible enough to allow learners to choose the courses they wish to study towards their qualification. Different open universities follow varying degrees of openness — some like the Open University UK and IGNOU have barriers of age at the entry level while other such as Athabasca do not impose this requirement and could be considered more open.

The principal technologies in this phase were print, radio and TV. Telephone and teleconferencing were being introduced as more emphasis was given to tutorial support. In many developing countries such as India, many open universities continue to follow this model.

The second generation of open education was shaped by the emergence and use of the internet and the world wide web. The first online course was launched in 1984 and the use of web-based programmes allowed learners the choice to study on campus or at a distance.

Interactivity was a key aspect of the second generation with a higher level of personalisation through the use of ICTs. This led to more flexible and blended approaches. Many campus based institutions began to offer both face to face and distance learning programmes, thereby opening up access to newer constituencies. In this phase we see a convergence of face to face and distance education provision.

Let us look at the growth of open universities which cover these two generations. In 1988, when COL began its operations, there were only 10 open universities in the Commonwealth — three in Canada and only one in Africa, that is UNISA.

Twenty years later, that is in 2008, the number of open universities in the Commonwealth increased to 27. You can see that only one remained in Canada, the other two having merged with campus universities to become dual-mode, marking the second generation.

On the other hand, the growth has been phenomenal in developing countries as governments struggle to increase access to higher education. India has 14 open universities which cater to 23 % of all higher education enrolments. Nigeria, Tanzania and Zambia all established open universities during this time. There are open universities planned for other African countries such as Mauritius, Kenya, Cameroon and Ghana.

The third generation of open education may be seen to commence at the turn of the century with the Open Education Resource movement which is based on the idea that knowledge is our common wealth and that technology can help us share, use and reuse it. MIT's OpenCourseware initiative; Rice University's Connexions, the OpenLearn, of the Open University of the UK, among others initiated this movement.

Gray (2007:35) notes that the dominance of developed countries over the production of OER risks relegating developing countries to the role of mere consumers. She added that in terms of bridging the

knowledge divide “...the question of content becomes very important. The African continent generates only 0.4% of global online content and this drops to 0.02% if South Africa is excluded”

However, many developing countries are increasingly investing in OER. Some of these initiatives are Sakshaat, the Indian Government’s OER project, the China Open Resources for Education Initiative, Vietnam’s Opencourseware and Japan Open Courseware Consortium.

You are aware of the Teacher Education in Sub-Saharan Africa (TESSA) Consortium, led by the Open University UK. COL is a partner in this nine-country initiative, under which partner institutions develop the OER themselves based on their institution’s needs, and priorities.

There are examples of OER on health being developed by Kwame Nkrumah University of Science and Technology in Ghana, under the aegis of OER Africa.

As we’ve seen OER development started in American universities such as Rice and MIT. There were concerns that this may become yet another form of cultural imperialism and at the World Conference on Higher Education organized by UNESCO in 2009, there was a call for developing countries to contribute to this movement. And you can recognize two prominent South Africans, who led the charge: Prof Barney Pityana and Prof Brenda Gourley!

We are referring to OER not as open access hardware or software but to content which is free and freely available. This is digital, reusable and available for all levels, not just tertiary education.

While there is no evidence yet to conclude that OER will be a panacea for our educational ills, there are some potential advantages, which include:

1. OER foster the exchange of global knowledge;
2. online collaborative OER development supports capacity building
3. collaborative OER development encourages the preservation and dissemination of indigenous knowledge; and
4. the availability of high-quality OER can raise the quality of education at all levels.

Course authoring can take up to 80% of an academic’s time.

Collaboration can help academics save both course-authoring time and money

It is clear that offering free content raises the profile of the university. It also encourages potential students to enroll. But what is interesting is that only 17% of educators use this free content. Most of it is used by the students.

The philosophy underpinning this movement was articulated by Richard Stallman as the four freedoms: freedom to use, freedom to study, freedom to redistribute and freedom to modify.

As you can see, the first generation takes us over 2 decades from 1969 to 1990 and we can see a gradual growth. The second generation, again started in 1984 and reached its high point in 2005. The third

generation has taken off in the last five years and can lead to major changes in the ways we teach and learn.

Fully aware of these developments, my own organisation, the Commonwealth of Learning has initiated several OER projects.

The Virtual University for Small States of the Commonwealth (VUSSC) is one of them. It is a consortium of 32 small states of the Commonwealth which have come together to develop capacity in online course development, develop courses that are freely available and offer these courses through existing tertiary-level institutions in the participating countries. Several need-based courses on “Disaster Management”, “Tourism” ‘Entrepreneurship development’ “Linux for IT Managers” have been completed and are available on COL’s website .

The second COL initiative is a six-country partnership to develop 20 sets of course materials in print and online formats, based on the secondary curricula of Botswana, Lesotho, Namibia, Seychelles, Trinidad & Tobago and Zambia. The William and Flora Hewlett Foundation, came forward to support this work that combines the professional development of teachers with the development of OER. It is expected that providing high-quality course materials free of cost and enhancing the capacity of teachers will contribute to improving, among other things, the quality of secondary education in both open and conventional schools in the participating countries.

This is a low-cost training model through which people all over the world can be trained to develop online content using WikiEducator, a free platform supported by COL. While participants get free training, they are required in return to donate all content created by them as OER.

What makes the COL approach particularly important is that it focuses not only on collaborative content development, but also on capacity building, and on creating communities of practice. Its not simply about cutting costs but also about improving the quality and effectiveness of higher education.

What implications do these developments have for the future of teaching and learning?

There are new and diverse constituencies of learners today, chief among them being women and young learners. Globally, age participation rates have grown from 19% in 2000 to 26% in 2007. In 2007, there were 150 million tertiary students globally, a 53% increase over 2000. (S Uvalic-Trumbic, UNESCO, 2010)

These learners are technology savvy and use different technologies in different contexts. At a Japanese University, one study found that in one week, student preferred to send SMS’s . Surprisingly they sent only 2/3 emails per week.

A study carried out by the Distance Education Unit at the University of Pretoria shows that the basic mobile phone can be a valuable device for providing student support. 99% of the teacher trainees had mobile phones while only 1% had access to the internet. The university began by sending out administrative messages relating to registration information, deadlines etc and followed this with academic content such as quizzes. Student motivation levels remained high and there were fewer dropouts.

So what implications do these developments have for learners? The ‘new learner’ was an expression that became popular in the 1980s to refer to the adult learner who looked for new education, or skills for personal development, or enhanced job requirements.

More recently, Marc Prensky’s phrase ‘digital natives’ has become popular to describe the technology savvy learners, as opposed to those of us who are digital immigrants to the technological landscape.

We can foresee the emergence of a still *newer* learner that displays the features of both the ‘new learner’ of the 80’s and the ‘digital native’ of the 21st century – the ‘*ultimate learner*’ who has the mindset and motivation to learn in diverse circumstances and environments.

How can this learner become not just the consumer but also the producer of content? Can we already see a trend towards self-directed learning? What types of support will these learners require?

What do these ultimate learners want? Prensky interviewed 1000 American students and came to the conclusion that these learners did not want to be lectured to. They wanted to work with their peers, cooperate as well as compete with them and preferred education which was ‘real’ rather than simply relevant. (Prensky, 2010, p.16) What is relevant? For example if a reading is taken from a newspaper rather than an old textbook, we would consider this relevant to the student’s experience. Real means that students can see the connection between what they are learning and how they can use that learning to do something useful in the world.

Professor Bob Bernard of the Educational Technology group at Concordia University, Montreal, and his colleagues carried out a meta-analysis of hundreds of studies in which distance education students were treated in different ways. They distinguished three types of interaction: student – content; student – student; and student – teacher. They then analysed all the studies to find which type of interaction made the greatest difference to student performance when it was increased.

The results were very clear. Increasing *student – content* interaction had much the greatest effect; with *student – student* interaction coming next and *student – teacher* interaction last. This highlights the importance of content.

What implications does this have for pedagogy? In a recent paper Terry Anderson identifies the three generations of distance education pedagogy: the teacher student interaction in the first generation relied on behaviorist pedagogy; student-student interaction resulted in constructivist learning and the student-content relationship with the focus on networks and collaborative content development led to the term ‘connectivism’.

Will students learn more effectively with a mix of all three approaches? How will we assess the new ways of learning?

What is the role of the teacher in the 21st century? The teacher seems to have evolved from the sage on the stage to the guide on the side to a partner in learning with the student of today. According to Prensky, the best strategy for the teacher would be to partner with the student. Both the teacher and the student can complement each other’s strengths. While the teacher learns technology from the students, the student learns rigour, quality and context from her teacher.

Why do teachers need to learn technology from the student? An OECD survey concludes that university teachers fall within the following categories:

12% are enthusiasts who claim to spend three or more hours a day publishing online course materials

58% pragmatists who are comfortable with technology use and see the value of ICTs for teaching and learning

17% sceptics who are reluctant to use technology or could even be against its use.[2]

While teachers are using the internet to access up-to-date information and using Learning Management Systems to cater to the new learner, according to a Becta study (2008), most teachers still do not use Web 2.0 technologies such as wikis, blogs and social networking sites. The study also shows that there is a tendency for teachers to merely replicate the old pedagogies with the new tools.[3]

So what impact are OER having on universities? Let me first take the example of the University of Southern Queensland which proposes to use OER to open up education to anyone anywhere in the world.

This would mean that the university places a percentage of its courses as OER, provides voluntary tutors and students pay only if they wish to be assessed. The total cost would be only 20-25 % of what they would normally pay

IGNOU has also put its courses on its portal FlexiLearn where students can access the courses of their choice, register for free tutorials and then pay, if they want to be assessed. 37,000 students have already registered under this provision.

The Open University UK, a model for many traditional open universities has demonstrated that its important to keep pace with the changing times. Its courses are now available on iTunesU.

The London School of Business is offering a Facebook MBA that would only cost \$ 23,000 as compared to \$ 65000 that a student would pay at Queens University, Canada

Another successful model of opening up education is the Khan Academy—where anyone with the time and inclination can learn free math at any level. In fact, Bill Gates, teaches his son math using this site.

What will be the implications for higher education? OER have the potential to open up access, improve quality and reduce costs to all levels of education. It will be possible for learners to construct their own courses based entirely on free and freely available resources. But who will provide the qualifications? Will we see the rise of new Degree Granting Bodies or Open Courseware Accreditation Agencies? How will the quality and credibility be ensured? Institutions are already grappling with these questions as they prepare to offer parallel pathways to making universal access to higher education a distinct possibility.

Have we come full circle? Are we back where we started in 1858?

Is this what the day in the life of our 'ultimate learner' look like?

With that, I thank you for your attention.

[1] C Latchem & Insung Jung: Distance and Blended Learning in Asia, NY London: Routledge, 2009, p.xiii

[2] OECD report, 2009, p.30

[3] Analysis of emerging trends affecting the use of technology in education, Becta, September 2008, p. 21