

The impact of OER and MOOCs on ODL: an international perspective



Presentation Transcript

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It is a privilege to be here in at Peking University and I thank the organisers for the invitation. I have prepared this presentation with my colleague Dr Sanjaya Mishra.

As you know, my organisation the Commonwealth of Learning or COL is an intergovernmental organisation established by Commonwealth Heads of Government in 1987. Our headquarters are in Metro Vancouver, Canada and we have a regional office the Commonwealth Educational Media Centre for Asia in New Delhi, India.

We work in the 53 Member States of the Commonwealth which are spread from the Caribbean to Europe, Africa, Asia and the Pacific.

Our mission is to help Commonwealth member states and institutions to harness the potential of distance learning and technologies for expanding access to education and training.

My topic today is ‘The impact of OER and MOOCs on ODL: an international perspective’. After setting the global context, I will look at how ODL has evolved over the past five decades. I will then review the rise of OER and the phenomenal growth of MOOCs with the impact that they have had on teaching and learning. Finally we will look at the lessons for ODL institutions and what we can do to embrace emerging trends.

First, let us turn our attention to the global context in terms of demographics, the increasing demand for higher education and the phenomenal growth of technologies.

There are 1.2 billion young people between the ages of 15-24, most of them in developing countries. There is a high rate of unemployment especially among the youth.

China has over 278 million young people, which accounts for 20% of the total population.

The global rate of unemployment among the youth is over 12 %

The China Household Finance Survey suggests an unemployment rate of 9.6% for the 16-24 year age-group.

In the previous decade we have seen an unprecedented demand for higher education. In 2007, there were 150 million tertiary students globally. We find that the number has increased to 165 million in 2012 with an estimate that this is expected to rise to 263 million in 2025.

What does this mean in real terms? If we are to accommodate the children who will reach enrolment age between now and 2025, we will need to build four new universities every single week with a capacity of 30,000.

The rate of tertiary enrolment rates has doubled in China over a decade to 30% and is higher than the South Asian average

In which ways can technology help?

What kinds of technology? While in North America, there are over 80 internet users per 100 persons, in developing countries the average drops to 31% while in the LDCs, the number of internet users is less than 5 percent. The world average stands at 43.6%

In China, while the number of internet users at 49% compares favourably with the world average, the real growth has been in mobile devices. How can ODL institutions harness the potential of this affordable and available technology?

What are the emergent trends in technology globally? The recent Horizon report estimates that in the next two years, blended learning would be used increasingly, and institutions will redesign their learning spaces. Over the next three to five years, the focus will shift to measuring learning outcomes and OER will be available in more subject areas. In the longer term, we will see more innovation and collaboration within institutions (Johnson et al, 2015). How can ODL institutions make these transitions effectively?

Within this context, let us briefly review how open and distance learning has evolved over the past decades.

As governments and policy makers sought to expand access to education, reduce costs and improve standards, they realized that traditional brick and mortar solutions would not be enough. The success of the Open University UK captured the imagination of policy makers around the world but particularly in developing countries.

This led to a substantial surge in the number of open universities in the Commonwealth. In 1988, there were only 10 open universities in the Commonwealth, of which four were in Canada and the UK.

Twenty five years later, that number has tripled. You can see that the growth has happened in developing countries. The five Open Universities in Commonwealth Africa, will soon be joined by open universities in Botswana and Kenya. As we know, Asia has over 70 open universities and the numbers continue to grow.

What implications did the early open universities have for pedagogy? What was new in this phase was that learning could take place without a teacher and self-instructional materials were developed to cater to the diverse needs of the learners. There was a greater use of radio and television to supplement print materials. The learner could learn at her own pace and place and there was a greater emphasis on flexibility and modularity.

With more access to technologies, we have seen an increasing trend towards online learning, especially in the developed countries. According to a Babson survey, 33.5 % of all higher education students in the US take at least one online course. Almost all public and private institutions in the US offer online courses.

What is the situation in China? The Ambient Insight report in 2015 states that after the US, China is the second largest elearning market in the world. It also signals two important trends: one, the growing number of online education startups; and two, an increase in the number of large Internet companies entering the market.

In which ways has online learning affected the way we teach and learn? Online courses brought in innovations such as authoring tools, learning management systems, unlimited web resources and online self-tests. Interactivity is a key aspect of this phase, with a higher level of personalisation. 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.

With the rise of social media, there has been a global movement towards collaboration in the development and sharing of content and we have seen the rise of Open Education Resources or OER. The fundamental principle is that any materials developed with public funds should be made available free to others.

We have seen the emergence of large global repositories, such as the MIT's Open Courseware initiative, many resources of which have been translated into Chinese.

As we know, OER are educational materials which are free and freely available. OER can be reused and repurposed to suit different needs and could be available in any medium, print, audio, video, digital. One key difference between OER and other educational resources is that OER have an open license, which allows adaptation and reuse without having to request the copyright holder.

There has been an increase in number of OER policy in the last decade and several countries, including China have made a commitment to open education. There has been a huge increase in number of OER repositories and the number of CC licensed materials on the web.

You can see that countries in the Commonwealth such as South Africa, Mauritius and India, among others, have developed OER policies at the national level.

The University of South Africa has developed an institutional strategy and identified an action plan to deploy OER. This includes infrastructure support, OER development and the use of open licenses.

China has been a leader in the field of OER. The Ministries of Education, Culture and a consortium of universities have developed Jingpinke, NCIRS and CORE, which are meant for teachers, students and members of the public.

What are some of the challenges that OER present to stakeholders? A survey of how OER are being used in 13 Asian countries in 2011, sums up the key challenges that different constituencies faced.

Teachers felt they did not have either the time or the capacity to locate, adapt, and re-purpose OER material relevant to their work.

Learners felt that OER should be fully open, half-open didn't help and materials should be accessible on alternative technologies such as mobile devices.

Technical support personnel said there were no standard practices in the packaging and re-use of OER.

Management was concerned about the challenges relating to intellectual property and copyright issues. Concerns regarding competition and revenues were also raised.

More recent studies are beginning to show more positive results. A 2014 study shows that over 80% of the teachers surveyed said that the use of OER has helped them to one, adopt a broader range of teaching and learning methods; two, use a wider range of multi-media and three, reflect more on their teaching practice.

Another study confirms these findings. The majority of teachers said that the use of OER had helped them extend their coverage of the curriculum and adopt a broader range of teaching methods.

Students too reported a positive impact of OER on their levels of interest and satisfaction with their studies. 39% said that their grades had improved.

Robinson et al report that students who used open textbooks scored .65 points higher in science tests than those who used traditional textbooks. The Minister of Antigua and Barbuda found that one year after introducing open textbooks in Maths, the learning outcomes had increased by 20%.

As we know textbooks are a costly proposition. In the USA, according to David Wiley, 31% students don't register for a course because of textbook costs. But initiatives such as the Utah Textbooks project have demonstrated that it is possible to use OER to get a zero cost online textbook or a \$5 printed copy.

What implications have OER had for pedagogy? The student-content relationship with the focus on networks and collaboration led to the term 'connectivism'. The emphasis is now on collaboration rather than competition and the learner's role becomes more significant as s/he marks a shift from being a consumer to a producer of content.

The government of China and UNESCO organized an international conference on 'ICT in Education and post-2015 Education' in Qingdao in May this year. The Qingdao Declaration captures the international

community's commitment to promoting OER 'to expand access to lifelong opportunities, and to achieve quality education'. In which ways are ODL institutions harnessing the potential of OER?

OER seem to have been overshadowed in the past three years by the phenomenal growth of Massive Open Online Courses or MOOCs,

As we know, MOOCs are a form of distance and online learning.

Major consortia of the top universities on both sides of the Atlantic have led the movement. Coursera, Udacity, EdX and FutureLearn are the well-known leaders in MOOCs. While the first three are led by research universities in the US, FutureLearn was initiated by the Open University UK.

The three big US MOOCs attracted 25 million people since 2012, are open to anyone and offered online by top professors from reputed institutions.

Who are the MOOC participants? Most already have a first degree, are mostly male and those who take MOOC, often become serial MOOC-takers.

Our hosts Peking University, offers Chinese MOOCs for students and members of the public. Tsinghua University leads the collaboration on Xuetang X and Shanghai Jiaotong University offers CN MOOC.

What impact have MOOCs had on learners? A recent study shows that the majority of learners reported career-related and educational benefits. 33% got career benefits such as promotions and pay raises while 18% gained credit towards an academic degree.

The same study shows that students from less educated and less affluent backgrounds are more likely to benefit more in terms of career advancement.

What of impact on teachers? Thirty instructors from Duke University in the US who offered MOOCs, reported an improvement in classroom materials and activities; developing better measures of student learning and adopting new pedagogies.

Have MOOCs reduced the costs of higher education? Costs per completer of an 8 week course at Columbia University was \$74, while a 4-week course at the American Museum of Natural History cost \$272 per completer. These are early estimates but demonstrate that ODL institutions are no longer the only ones offering cost-effective options for higher education.

Are MOOCs transforming the way we teach and learn? A significant difference is the emergence of the flipped classroom as the standard practice. There is a greater emphasis on peer-to-peer learning.

MOOCs mark yet another shift in teaching and learning—by putting greater responsibility on the learner to construct knowledge and to move from teaching a small class to a massive group around the world. The use of Learning Analytics, a component of the MOOC platform, can help us to collect and analyse data about how learning is taking place. Because of this, predictive systems can be developed to identify potential dropouts and provide the necessary support to help them overcome their difficulties. It can also

highlight those areas where many students struggle so that the tutors get the feedback to take remedial measures.

As the world prepares for post-2015 education, MOOCs will become more prominent and prevalent. The Qingdao Declaration urges governments, institutions and stakeholders to harness the opportunities brought by online innovations such as MOOCs.

In which ways have OER and MOOCs impacted ODL? What can we learn from the experience of OER and MOOCs?

In general, ODL institutions have not played a leadership role in either the OER movement or in developing MOOCs. It has mostly been research universities. Open Universities have yet to adopt and appropriate these emerging options

In which ways have OER disrupted ODL practices? Open universities have traditionally built their reputations on the quality of their content. This was the family silver which was well-crafted and well-protected. By making quality content free, OER have pulled the rug of 'quality courses' from under the feet of open universities. ODL institutions will have to focus on learner support as their USP rather than their courseware. Open universities can develop OER policies and build the capacity of their staff to harness the potential of OER.

Traditionally open universities had an industrial model—the open universities of the future will be a more connected model. There were course development teams within open universities responsible for creating content. Now the teams will be dispersed around the globe and will adopt/adapt existing OER. The rise of OER will encourage the student to be a producer rather than the consumer of content.

Some experts suggest that MOOCs are the iTunes of education, and will be a big game changer. This estimate is based on three important aspects of the current education system: one that it is rigid, two, it is highly expensive and three, take a lot of time to complete. MOOCs seem to address all three concerns. Top universities have taken the lead in offering MOOCs to a world deprived of quality education at a low cost. How will this disruption affect Open Universities?

Open universities operated within national or regional jurisdictions. With the MOOC platform, the world has become a connected classroom. Students had limited interactions with their tutors in study centres. There is a greater emphasis on peer to peer interactions and use of social media. Open universities of the future will increasingly make use of emerging technologies to support their learners.

What can ODL institutions do? Let me propose three actions.

First, revisit the philosophy of 'openness' on which the open universities were founded. When the Open University UK was established in 1969, the notion of 'openness' was a significant innovation. Lord Crowther, the founding chancellor of the Open University defined openness in relation to people, places, methods and ideas and this formed the basis of throwing open the ivory towers of higher education.

We need more advocacy for OER and open access policies. ODL institutions can embrace openness in a systematic manner. This would include adopting and adapting OER as well as open access policies for sharing and collaborating on research locally and globally.

Two, learn from the MOOC effect. MOOCs promote higher learner autonomy, and more structured course content. As ODL practitioners, we have catered to the autonomous learner and provided well designed content. But MOOCs, through the use of new technologies, has taken this to the next level. The modules have become smaller and more granular, there is a greater emphasis on short videos and more dialogue and interaction, mostly among peers.

Therefore, we need to review our current practices. What technology options do our learners prefer? Can we provide instant assessment? Research on MOOCs show that there is a greater chance of course completion if an instant online assessment is available. Are we flexible enough to provide multiple options to our learners? We offered multiple entry and exit points in traditional ODL—but in addition to certificates, diplomas and degrees, can we also offer nano and micro qualifications?

Three, ODL institutions need to contribute to national development. The international community has identified 17 sustainable development goals that will define the development agenda for the next 15 years.

Goal 4 of the 17 SDGs identified focuses on education. The objective of this Goal is to ‘ensure inclusive and equitable quality education and lifelong learning opportunities for all’ by 2030.

The goal has several targets: one, quality education must lead to effective learning outcomes, two, we must focus on developing skills for employment, entrepreneurship and global citizenship, and three, having qualified teachers in place will be critical to achieving these targets. This then will be the agenda as we go beyond 2015. What role can ODL institutions play to support this?

Today, our young people need to be trained for employment and entrepreneurship. How can ODL be deployed to support them and to accelerate progress towards achieving the Sustainable Development Goals? ODL was initially harnessed to provide increased access to higher education—it has evolved to embrace other sectors of formal education such as teacher training and secondary schooling. How can ODL institutions use OER and MOOCs effectively to promote non-formal, informal learning and lifelong learning as well?

With that, let me thank you for your kind attention.