Open Educational Practices And Quality Assurance: Leaving No One Behind!

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Distinguished Colleagues, Ladies and Gentlemen,

It's a pleasure to be here in Kaohsiung and I'm very grateful to Prof Melinda Bandalaria and Prof Grace Alfonso and the organisers from the University of the Philippines Open University, the National University of Kaohsiung and the Open University of Kaohsiung for the kind invitation. My topic today is 'Open Educational Practices and Quality Assurance: leaving no one behind' and I have prepared this presentation with my colleagues, Dr Sanjaya Mishra and Ricky Cheng.

Let me first introduce my organisation the Commonwealth of Learning. COL is an intergovernmental organisation established by Commonwealth Heads of Government over thirty years ago, with headquarters in Metro Vancouver, Canada and a regional office in Delhi.

Our mission is to help Commonwealth Member States and institutions to use distance learning and technologies for expanding access to education and training.

COL works in 53 developed and developing countries around the world. It is the only intergovernmental organization in the world that has the mission to promote distance and technology-based approaches for learning.

I'll begin with a brief review of the context that is leading to opening up education in various ways, I will look at what we mean by OEP and how this concept has evolved in a short time. This will be followed by the trends in QA in Higher Education in the previous two decades and a review of how QA needs to keep pace with emerging developments such as OER, MOOCs and micro-credentials. Finally, I will highlight some of the ways in which we can open up access to quality education so that no one is left behind.

But first the context. In the last decade we have seen an unprecedented demand for higher education. In 2007, the global GER was just over 25%. By 2017, the percentage had increased to nearly 38% and the demand continues to grow.

In East Asia and the Pacific, the growth has been even more dramatic. Starting with a nearly 25% in 2007, the GER in the region stands at 47%, well above the global average.

But even within Asia, there is a huge disparity among different countries. For example, while South Korea, Singapore and Japan have enrolment rates well above 60%, in countries such as Bangladesh,

Pakistan and Afghanistan in South Asia, enrolments are substantially below 15%. How can we increase access to the millions of young people in the region?

One of the barriers to opening up higher education is the issue of costs, and it is not just in the West. Asian education is very expensive if we look at the amount it costs as percentage of the average annual income in 2015—61% of the average income in Japan, over 95% in South Korea, nearly 100% in China, nearly 350% in Indonesia and 500 % in India. Even though families want to invest in educating their children, can they really afford it? Therefore, affordability will continue to remain a priority issue going forward.

One element of the affordability issue is the high cost of textbooks. You can see that while the consumer price index has increased by 48% in the last two decades, the cost of textbooks has increased by 81%. What is the impact of this?

Students in both developed and developing countries find it increasingly difficult to buy textbooks. In the US, 65% students could not afford to buy textbooks and a COL survey in Malaysia found that 76% students did not buy textbooks because of high costs. In Bangladesh, students manage by photocopying content.

The third driver is ICTs. The real growth in the Asia-Pacific region has been in mobiles which exceed 100 % in subscriptions.

This means that instead of accessing the Internet through computers, 48% of the population access the Internet through mobile devices.

The three main drivers of opening up education are the growing demand for higher education, the rising costs and the availability of technology.

One important dimension of opening up education has been the rise of Open Educational Practices or OEP. This followed the birth of Open Educational Resources or OER, which we know are materials that are free and freely available under an open license, reusable and digital.

One of the first definitions proposed by Connole points out that OEP are a set of activities and support around the development, use and reuse of OER. OEP are a response to OER use and deployment.

The second definition widens the remit of OEP—it agrees that OEP are the practices around the creation, use and reuse of OER but it also includes open pedagogies and open sharing. What are open pedagogies? Does this mean going beyond the command and control system of traditional teaching-learning to a more collaborative and equitable practice?

What do OEP include? The one common strand across the definitions is the creation and use of OER. OEP include not just content but open pedagogies and open access to learning opportunities. OEP also means open access publications and open research. Open source hardware and software also count as OEP.

Usually OER are at the centre of OEP. OER provides opportunities for sharing and collaboration to develop content, making knowledge publicly accessible under an open license. So, OER support open practices and quality content.

OEP involves moving from closed to open systems—more collaboration, more sharing, more open methods. In short, OER is phase 1 of open education, while OEP is phase 2 and involves creating an ecosystem supported by policies capacity and resources.

The Cape Town Declaration is a major milestone in the open education movement. It clearly states that open education is not limited to OER. It means drawing upon open technologies, open sharing of teaching practices to empower educators. It foresees new approaches to assessment and accreditation. This came out in 2007 and we can already see this happening.

As an ODL community, we have always understood that open education describes policies and practices that permit entry to learning with as few barriers as possible.

The founding chancellor of the Open University of the UK, Lord Crowther defined openness in relation to people, places, methods and ideas. This forms the basis of the philosophy of open 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. Charles Wedemeyer was a visionary, who described openness in terms of access, curriculum, participation and accreditation way back in 1973!

In Asia, when we speak of open education, we usually refer to open and distance learning or to open universities. Opening up education also means the massification and democratisation of education for those hitherto kept outside its purview. And because women have traditionally been denied the opportunities for education, opening up education also means reaching the unreached.

Globally, the concept of open education has a wider and more contemporary connotation. As Tony Bates tells us, open education refers to opening access to courses and programmes, and includes, OER, open access research, open textbooks and open data.

Open education is a philosophy that is not just limited to open universities, but the conventional universities too adopt various degrees of openness to provide open access to courses and programmes. Everyone has the right to education and should be given opportunity to learn irrespective of their location, economic and social condition. Thus, we have seen openness is an evolving concept—the three aspects that will help institutions to open up education to meet the needs of developing Asian countries are interrelated and can be described as access, content and technology.

Like openness, QA is also an evolving field. How has QA policy and practice evolved and kept pace with emerging developments?

Let me take two major UNESCO events—the World Conferences on Higher Education in which the global community adopted key declarations. If we go back to the World Conference on HE organized by UNESCO in 1998 and look at the Declaration, we note that there are some references to the 'enhancement and preservation of quality in teaching' but there is no reference to quality assurance.

However, when we look at the Communique adopted by the 2009 World Conference on Higher Education, we find frequent references to quality assurance throughout the text. The members note that 'quality requires both establishing quality assurance systems…as well as promoting a quality culture within institutions.' We seem to have moved from quality to 'quality assurance' and 'cultures of quality'.

National QA systems flourished across the world—spreading to 117 countries in the 2010's as compared to the 65 in the 1990's (Eaton, 2012). Has there been a similar improvement in quality?

In addition to national QA agencies, there has been a substantial increase in the number of regional and international QA networks in the last decade. The Asia Pacific Quality Network, the European Association for QA in Higher Education or ENQA, are some of the regional entities that now link with

country-based QA systems. The increasing mobility of students across borders and the growth of online learning are leading to international QA initiatives.

The number of Qualifications Frameworks have been developed in over 100 countries to support student mobility. (Eaton, 2012)

In the past decade, we have witnessed the growing prominence of rankings, a hierarchical comparison of the effectiveness of different institutions according to specific indicators. More than 85 countries use rankings and there are 10 international and some regional rankings (Eaton, 2012).

What has been the overall impact among administrators, faculty and students? A study by Stensaker et al (2011) in Norway, shows that the most positive impact was on institutional leadership and administrative staff who felt that QA had influenced internal quality with the establishment of new routines and procedures. Academic staff were less enthusiastic but agreed that QA had a positive impact on research and staff engagement. Interestingly, the students did not know much about QA nor did they find it relevant to them.

Traditionally, QA has focused on inputs, process and outputs—the kind of resources that are invested in institutions, the teaching and assessment practices adopted and finally the credentials awarded. QA has mostly been institution-centric—the focus is now shifting to learners and the learning outcomes they achieve.

The past decade has witnessed the increased emphasis on outcomes. The OECD's Assessment of Higher Learning Outcomes (AHELO) can be used by countries to test generic and discipline-based skills.

To sum up, we have seen an increasing trend towards outcomes—for institutions as well as for students. There are more tools available now than ever before, to measure outcomes, rankings, and to compare different institutions.

Let us now look at how QA has developed in Open Education. Open and distance learning is one effective manifestation of opening up education and Asia has the largest number of adult learners in the world.

Here are the 41 universities in Asia that are known specifically as 'open' universities. If we are to count the number of institutions offering ODL in various forms such as virtual universities, RTVUs, dual mode universities, we will well exceed a thousand institutions.

QA must take into account the features of ODL institutions. ODL institutions usually have course development teams which include subject experts, editors, media producers. They rely on self-instructional materials rather than classroom lectures, provide support services to learners and have assessment and exam procedures which are flexible. The infrastructure required is also different, with printing facilities and studios rather than extensive buildings or sports facilities.

According to Sir John Daniel the four pillars of QA in DE are: personal support to each learner, high quality multi-media materials, efficient administration and teaching rooted in research.

In the past two decades, we have seen the emergence of OER, MOOCs and Micro-credentials. What are the implications for QA? Do we need different quality criteria?

Asia has joined the global movement towards collaboration in the development and sharing of content, with its various OER initiatives. Our host UPOU is a leader in the field.

In OER, anyone can adapt the content, who is responsible for the quality of the repurposed content? How do institutions ensure the integrity of their credentials? And what is the role of QA agencies?

For OER, quality dimensions of content such as accuracy, relevance, currency, pedagogic effectiveness in terms of learning design would apply just as they would to any content. However, areas in which OER quality measures will be different would relate to reusability and openness. Is the content accessible, even to learners with special needs; can it be localized to suit other linguistic and cultural contexts: are there any barriers related to technology such as bandwidth or software requirements? COL's regional office has developed QA Guidelines for OER.

The 2012 Paris Declaration on OER led by COL and UNESCO recommends peer review as a mechanism of assuring the quality of OER. It further calls for the development of tools to assess and certify the learning outcomes achieved through OER.

Let us now come to the second major development emerging partially out of the use of free content or OER. There are several MOOC initiatives in Asia with thousands of courses available in Chinese, Japanese, Korean and Thai. AAOU is leading a MOOC initiative for members in which several Asian open universities are involved.

What is the current status of MOOCs globally? 81 million learners enroll in 9400 courses offered by over 800 universities. The majority of the courses offered are in technology followed by business and management.

A survey conducted by the Chronicle of Higher Education in 2013, asked the professors running the MOOCs if they believed that students who succeed in their MOOCs deserve course credit from their institution, 72% said no. But that was five years ago.

Today the situation is changing as governments develop accreditation and recognition systems. This shows how learners completing Malaysian MOOCs and both acquire credits and can transfer them across institutions.

India's MOOC platform Swayam aims to increase access to quality education. There is a centralised directory of courses and institutions decide which courses they will provide credit for. These credits are transferable across institutions and the host institution sends the grade directly to the students of the participating institutions.

Here again the question is who regulates quality? What are the standards of curriculum, what type of learner support is provided and how does assessment and certification take place? What about the quality of faculty involved?

After wide consultations, COL has developed Guidelines for QA and Accreditation of MOOCs. Clearly one size does not fit all and localization for specific contexts is important.

The Guidelines focus on initial inputs, the process of learning and the completion and satisfaction of the learners.

Let us now look at the third development. Because of the new ways of learning, it is now possible to offer micro-credentials. Micro-credentials provide options for low-cost flexible learning. MIT has already introduced the MicroMasters programme which can prepare the learner for employment or further qualifications.

Micro-credentials are leading to unbundling of courses and programmes into shorter, just-in-time courses that allow learners to continue as per their convenience at a fraction of the costs. Can micro-credentials be stacked to lead to macro-credentials? How will micro-credentials be recognised across institutions and national boundaries? UNESCO has recently brought out a publication on 'Digital Credentialing: implications for the recognition of learning across borders'.

As we view the developments of the last decade, we note that there is an increasing move from traditional ODL delivery to more digital and online provision. MOOCs were unforeseeable some years ago. We also see a trend from an institution-centred to a more learner-centred approach. What do educational institutions need to do? One, be flexible and open enough to embrace new provision; two, be relevant to the changing needs of learners and three, harness the developments in appropriate technologies.

How can we open up access and success to quality education? How can technologies enhance the quality of the teaching learning process? How can we ensure that we leave no one behind?

As you know the world community has adopted the 17 SDGs. Sustainable Development Goal 4 aspires to ensure inclusive and equitable quality education and lifelong learning opportunities for all by 2030. How can we harness the potential of existing and new technologies?

As we know, Learning Analytics can help create a more personalized learning experience by providing continuous and instant feedback resulting in improved outcomes. Because of this, predictive systems can be developed to identify potential dropouts and provide the necessary support to help them overcome their difficulties.

What happens in resource-poor communities? In Kyambogo university Uganda, when a student does not come for the tutorial sessions for two consecutive weeks, the tutor gets on his bicycle and travels for miles to find out what the problem is. This culture of care is what really constitutes the culture of quality.

A popular example of AI in education is a Virtual Teaching Assistant at the Georgia Institute of Technology. This chatbot named Jill Watson offered personalized assistance to learners in an online course in computer science by using text. We know how important it is to give instant feedback to our learners.

How about those who do not have comparable resources? In India, these illiterate women learn goat rearing and corporate finance in their local languages using basic mobile phones. In the past two years 137,000 women in 11 countries have been lifted out of poverty and every dollar invested has resulted in assets worth 9 dollars.

Mary Arogya is a school dropout and a grandmother who knew nothing about computers. As part of COL's Lifelong Learning for Farmers project, she is working as a content and web manager for a farmers' organisation, has uploaded hundreds of resources on YouTube, Facebook and trained over a thousand other farmers.

Another example of AI in education is the Intelligent Textbook. Inquire is an iPad App that combines a popular biology textbook with an AI system that answers questions about the content. This was part of a research project at Stanford University. Not everyone in the Commonwealth has computers and connectivity. Children studying under a tree is not an uncommon sight. Can these children become part of global knowledge flows?

COL developed Aptus a low-cost offline virtual classroom that provides learners in remote locations with access to digital resources. It's a server that works with a solar charger and a wireless router and costs approximately $ 150.

Aptus was deployed in a remote mountain school in Pakistan and resulted in better motivation of teachers and improved learning outcomes for students. Students took interest in this technology because they could watch animated videos and access multi-media resources on different topics.

Following the devastation wreaked by cyclone Gita, COL responded by sending secondary school materials to Tonga on Aptus. My colleague who went to train the technical staff in Tonga is presenting the device and tablets to the minister of education.

Augmented Reality and Virtual Reality technologies have great potential to improve learner experience. VR can immerse the learner in a simulated experience while AR can alter one's current perception of the real-world environment through visuals or sound. Both AR and VR have a major presence in the mobile world. The leadership in these technologies is entirely with commercial systems and costs continue to be high. However, these are so far available in well resourced urban centres—what about learners with disabilities?

Globally, 186 million children with disabilities have not completed primary school. The situation is worse in developing countries where 90% of the children with disabilities are out of school. The situation is no better in the tertiary sector.   In Canada, access to tertiary education for people with disabilities is 11 %. Australia has over 5 % people with disabilities in tertiary education while the percentage drops to 1% in South Africa and .56 % in India.

Assistive Technologies can help improve access and inclusion. Voice recognition, braille displays, screen magnification and various mobile apps are already available on smartphones. We need to use these technologies from a pedagogic perspective to make education more disabled-friendly.

Assessment has been a challenge for many teachers. According to Professor Rose Luckin at the University College London, "stop and test" assessments do not rigorously evaluate a student's understanding of a topic. AI-based assessment constantly provides feedback to learners, teachers and parents about how the students learn, the support they need and the progress they are making towards their learning goals.

Blockchain, a major development in the area of financial technology, is, in effect, an open source online register. A learner can have a distinct, persistent ID in this space. It is important to note that the records cannot be modified at all.

Blockchain will challenge paper credentials and paper certificates that are the norm today. Instead of the manual authentication of portfolios, institutions will be able to carry out this process online. This will make it difficult for digital diploma mills to thrive.

COL is already supporting the University of Hyderabad, India to use blockchain technologies for certification campus institutions both in the developed and developing countries.

MOOC platforms allow us to offer free online courses to thousands of students around the world and are an important platform for lifelong learning. Can they help us make our learners more employable? A study of a Coursera MOOC platform published in Harvard Business Review indicates that MOOCs provide many tangible and intangible benefits. For example, 26% found a new job, 9% started their own business, and 62% improved their skills in current job roles.

COL has tailored MOOCs to suit the needs of developing countries and learners have been reached even through basic mobile phones especially in agriculture related courses. These are participants of a MOOC for gardeners offered in their local language.

COL's MOOC for Development model can help us reach the bottom billion by providing simple technology solutions such as basic mobile phone interface, social media integration and delivery in low bandwidth situations. The content is developed as OER and the design encourages a blended approach—online and face to face interactions.

The world of tertiary education is changing and opening up opportunities as never before. In the future, learners will need to move back and forth from academia to employment. This will give rise to the network of multi-varsities. Micro-qualifications will be as important as degrees. The faculty will also have to become lifelong learners to keep pace with these changes.

To conclude, Open Education is much larger than OER and Open Educational Practices—it means expanding access to quality education for all. Open rather than closed education systems are a precondition for quality. If we really mean to reaching the unreached, we can see that it can be done if we adopt a targeted approach.

Thank you for your kind attention

COL's triennial Pan Commonwealth Forum will be held jointly with the Open University, UK next September in Edinburgh. The theme is 'Innovations for Quality Education and Lifelong Learning'. I sincerely hope you'll be able to join experts, policy makers and practitioners from around the world to discuss and identify new paradigm shifts and innovations that will help us to leave no one behind.