

Democratising Higher Education through Open Education Resources: From Commitment to Action



*Keynote Speech
International Conference on Information (ICI 12)*

*Kuala Lumpur, Malaysia
13 December 2012*

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Distinguished Colleagues, It is a pleasure and an honour to be here and I am very grateful to Tan Sri Prof Anuwar Ali for the opportunity to speak to you. The Open University of Malaysia has been a close partner of the Commonwealth of Learning and Tan Sri was awarded the COL Fellowship in 2008 in recognition of his outstanding contributions to Open and Distance Learning (ODL). My topic today is **‘Democratising Higher Education through Open Education Resources: from commitment to action’**.

I will first look at the context of higher education and some of the initiatives that have been taken to democratise education. I will then bring you some examples of how OER are being harnessed to increase access, improve quality and cut the costs of education. I will then reflect on the recent phenomenon of Massive Open Online Courses or MOOCs and consider whether these might democratise higher education. I will finally look at some key commitments that have been made by the global community to the development and use of OER and will conclude with some initiatives that could help us address these challenges and advance us towards democratising education through the use of OER.

Let us first review the context of higher education today.

The dynamics of emerging economies, the need to accelerate development for all and the phenomenal growth of technologies have resulted in an unprecedented demand for higher education. In 2007, there were 150 million tertiary students globally, a 53% increase over 2000. 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. In the last 4 years Age Participation Rates in higher education in India have increased by 65%. By 2015, the age cohort of the 15-24 year olds in Asian countries such as Indonesia, India, Malaysia and Philippines will be nearly 20% of the population. Will we be prepared for the surge?

Meanwhile, the gap between the demand and supply continues. In 2007, of the 80,000 applicants to the University of Dhaka, only 10,000 could be accommodated. The situation was similar for the public universities in Kenya. Last month the Indian Minister for human resource development announced that India would need an additional 800 universities if it was to absorb demand by 2020.

According to the World Bank, for countries to achieve sustainable economic development, the Age Participation Rates, that is the participation of the 18-24 year olds in Higher Education, must be in the region of 40-50%, which is the OECD average. But Age Participation Rates in South Asia are below 15 % and in SSA below 10%.

Governments are looking for alternative means of providing access to quality education to their citizens. Opening up education in various ways was one such option. It is true that massification has opened up access to newer constituencies but has it democratized education? Democratisation implies not just the multiplication of numbers: it involves equalization of opportunities, opening of access, freedom of choice and a fair chance of success. This led to the establishment of open universities or what were often called the people's universities. In 1988, when COL began its operations, there were only 10 open universities in the Commonwealth—3 in Canada and only one in Africa

Twenty five years later, that is in 2012, the number of open universities in the Commonwealth has increased to 28. The growth has been mostly in the developing countries, the most recent being the Open University of Mauritius, which is also an OUM!

Asia alone has over 70 open universities and the numbers continue to grow. India has 14 open universities which cater to 23 % of all higher education enrolments.

Private provision is the fastest growing sector in HE. Many crossborder providers offer distance education and online programmes. In India and Malaysia, private provision accounts for over 50%, in Brazil and Indonesia it is over 60% while in developed countries like Japan and South Korea: it is 73% and 60% respectively.

A recent article in The Economist asks whether higher education is still worth it? The costs of higher education have risen way above inflation rates in the past three decades. Starting with a baseline of 100, the costs of HE are now 1200 %. Can this sector be seen to contribute to the democratization of HE?

In addition to this growth of open universities, there has also been a phenomenal increase in online provision. In 2010, 6.1 million students were taking at least one online course accounting for 31% of all US Higher Education students. This Slide gives you an idea of this increasing trend. As technologies become more accessible both developing and developed countries will move towards online and distance provision.

Asia has the highest percentage of online enrolments in the world at 17.3 % with Vietnam leading at 44% followed by Malaysia at 39.4 %. In fact according to a recent Ambient report, Malaysia Education Online has set a goal to offer 30% of all HE courses online by 2015.

Yet there is a clear digital divide across the Commonwealth, if you look at the proportion of households with access to computers and the internet. With less than 10% in sub-Saharan Africa and 8 Commonwealth Member States in Asia, it is nearly over 80% in Europe and North America.

This divide can be turned into a dividend because of the phenomenal growth of mobile devices, which are more affordable, accessible and available.

As you can see from this chart, the growth of mobiles in developing countries has far exceeded the development of mobiles in developed countries in the last five years. There is nearly four times increase in the growth of mobiles in developing countries during this period.

With the rise of social media, there has been a global movement towards collaboration in the development and sharing of content. Can the rise of OER lead to the democratization of education?

At a meeting in 2002 at UNESCO, Paris, the term Open Education Resources or OER was coined to promote the development and use of free materials for education.

In short OER are educational materials which are free and freely available, are suitable not just for higher education but for all levels including primary and secondary education. 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.

The Open Education Resource movement is based on the idea that knowledge is our common wealth and that technology could help 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. Massachusetts Institute of Technology's (MIT) Open Courseware (OCW) initiative can be seen to mark the first generation of OER, in which teachers placed their lecture notes online for free use. Teaching was being shared and opened up as never before. The UK Open University's Open Learn project marks the second generation in which existing self-instructional materials, designed for structured learning are placed in online format. Here it is the learning which is being shared. The third generation sees the convergence of both teaching and learning in the experience of the VUSSC. In this case, courses are developed collaboratively using an authoring tool, the wikiEducator and shared freely by all stakeholders (Daniel, Kanwar and West,2007).

Who uses the MIT materials? 54% of the MIT traffic is not from the US and 43% of those who access the materials are self-learners. 35% of those who enter MIT have visited the site and only 17% are educators who use the materials for their teaching.

OER can help address the issue of access to learning resources in a significant way. OER penetration in the developing world has been slower than in the industrialized countries. Yet there are emergent examples which give an indication of how OER are being used in low-resource contexts. The students of Bunda College of Agriculture, Malawi, had no text book on Communications Skills and were entirely dependent on lecturers. Now they have a textbook, 75 % of which is based on OER harvested from the web and supplemented with locally relevant activities, examples and assignments. A lecturer at the

University of Jos, Nigeria discovered this textbook and has adopted it, an instance of south-south collaboration.

Access can be opened up to new constituencies through translations. China Open Resources for Education (CORE) has translated MIT OCW materials into Chinese. COL's Instructional Design template, an OER, has been translated and adapted by the Open University of China. Materials from COL's website have been translated into Ukrainian.

Many of you may have heard of the Indian Institutes of Technology or IITs. These premier institutes, in partnership with the government, have made their engineering and technology courses available as OER. These are being used in 509 institutions, most of them in remote locations with very limited resources. Both teachers and students are using the free IIT resources to improve the quality of their teaching and learning.

In open universities, course authoring can take up to 80% of an academic's time.

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

The Teacher Education in Sub Saharan Africa, a partnership between the Open University UK and 18 institutions in 12 African countries has developed OER for teacher training in four languages: English, Kiswahili, Arabic and French. These were used by 320,000 teachers last year alone, and the free materials as well as the sheer numbers of users have radically reduced the costs of providing quality teacher training to about \$ 10 per teacher.

A recent survey of how OER are being used in 13 Asian countries, sum up the key challenges that different constituencies face.

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.

How can we address these challenges to increase the take up of OER and promote real democratization of education? How can we reach teachers in farflung and marginalized communities? It is these communities that need most help to improve the quality of education. How can we make them partners in this movement? OER can help improve quality: availability of OER can release faculty time for more research; diversify provision from full services to services that the learner can choose, increasing flexibility; cut costs through the use of free materials and textbooks.

Let us now come to the second major development emerging out of the use of free content or OER. This is the phenomenon of the Massive Open Online Courses or MOOCs. Started at the University of Manitoba in 2008, this has spread like wild fire in the ivy league institutions of the United States.

What is a MOOC? According to the evolving definition on Wikipedia ... *a MOOC is a type of online course aimed at large scale participation ... MOOCs are a recent development in the area of distance education, and a progression of the kind of open education ideals suggested by OER*

A recent Observatory of Borderless Higher Education report sums up that MOOCs are usually free of charge; designed for large numbers; designed to encourage peer to peer learning and meant to award completion certificates rather than course credits

Stanford University offered a free course in artificial intelligence last year which registered 160,000 students from nearly all countries of the world, of which 23,000 completed the course.

MITx offered its first course on Circuits and electronic in May this year at which 155,000 students from 160 countries registered, of which 7157 passed the course. Even though the pass percentage is well below 10%, the edX president Prof Anant Agarwal says ‘ if you look at the number in absolute terms, its as many students as might take the course in 40 years in MIT’

What is the business model if the institutions do not charge fees? You can see that the three MOOC companies that have recently developed, the costs are being shifted from the student to the institution or to future employers. Even when fees are charged for exams, they are minimal.

Can MOOCs democratize education? Would MOOCs improve the quality of teaching? The research results from the pioneers in MOOCs will provide excellent data for developing world institutions to review their teaching learning practices for better quality and outcomes. Will MOOCs encourage the global mobility of students? Or the development of flexible frameworks for credit transfers, and recognition of qualifications? First from our perspective, MOOC, is simply a platform; it is a platform to organize an event. When a course is offered on this platform, it is still an event where participation is free and open. The core interest for ODL institutions may be extensively test the viability and usefulness of select MOOC technologies for learner profile and data management and basic delivery and assessment techniques. MOOCs can become a viable option as connectivity increases and open source platforms are adapted and deployed. Second, developing world institutions can modify the MOOC model to offer more blended approaches and better learner support services towards degrees and diplomas. Third, the research results from the pioneers in MOOCs will provide excellent data for developing world institutions to review their teaching learning practices for better quality and outcomes.

The general trend in the developing world is to use OER to address certain core needs. One, there is a tremendous demand for qualifications at all levels, secondary as well as post-secondary. OER are not simply seen as a value-add to existing educational provision but also as a route to earning credentials. The only way to reach the unreached constituencies in remote and distant locations is through the use of appropriate technologies rather than computers alone. In many developing countries such as India China Vietnam, it is primarily the state rather than philanthropic organizations which has come forward to support OER initiatives.

From the instances that I have mentioned, it is clear that the OER experiment so far has been largely confined to the development and use of materials. There have not been any major instances of OER entering the structured higher education systems in the developing countries and making an impact access, quality and costs. To make that happen, the higher education systems in those countries need to look at their structures and processes, and reinvent themselves. True democratization will depend on the ability of the stakeholders in developing countries to domesticate OER. For that we need to move from commitment to action.

As you know, COL and UNESCO have been working for several years now to promote the development and use of OER. The 2012 World OER Congress was organized in June this year.

The recent joint initiative has been a project on ‘Fostering Governmental Awareness Internationally’ funded by the William and Flora Hewlett Foundation.

The 2012 Paris OER Declaration marks the tenth anniversary of the term OER, which was first coined at a conference held in UNESCO in 2002.

The Paris Declaration makes 10 recommendations. Let me just refer to three that may be of interest to you:

- Foster awareness and use of OER
- Encourage the development and adaptation of OER in a variety of languages and cultural contexts
- Encourage the open licensing of educational materials produced with public funds.

This is an important development as governments tend to take such internationally-agreed documents led by multilateral organisations like UNESCO and COL, seriously and the Paris Declaration could have a major role in influencing policy makers. Can OER increase access, improve quality and cut the costs of education?

In August this year, the Commonwealth Education Ministers met in Mauritius for their triennial conference. OER again feature prominently in the ministerial Communique. This again is an influential document that is taken seriously by policy makers across the 54 Commonwealth Member States. Ministers recommend that *‘a common platform for OER materials be set up for ease of access’* and *‘the development and use of OER in providing quality teaching and learning for all’* be promoted.

COL has already been working on a platform with Commonwealth Connects to develop a directory of full open courses in higher education. COL will develop directories for OER in teacher education and secondary schooling next.

Who are the major players offering free courses in the Commonwealth? The UK Open University, the National Open University of Nigeria and the Indira Gandhi National Open University.

COL has developed several resources such as the Basic Guide to OER and Guidelines for OER, among others which are available on the COL website.

COL has also helped develop the Virtual University for Small States of the Commonwealth. This is a consortium of 32 small states which have come together to develop capacity in online course development. This is a university of, for and by the small states of the Commonwealth. Several need-based courses on “Disaster Management”, “Tourism” ‘Entrepreneurship’ ‘Fisheries’ etc have been completed and are available on COL’s website. Teachers who had never developed a single page of online material are now training other colleagues.

So what impact are OER having on universities? Let me first take the example of the OERU, a consortium of 18 universities which includes the University of Southern Queensland, Otago Polytechnic and Athabasca, among others. The consortium is using OER to open up education to anyone anywhere in the world.

The participating universities are putting a percentage of their courses on their websites as OER so students anywhere in the world can access them. They will then recruit retired teachers and volunteers on the lines of Doctors without Borders, who will provide free tutorial support to the students. Students pay only if they wish to take exams towards a qualification. This will cost students only 20-25% of what they would normally pay thus making higher education more affordable and accessible to anyone in the world.

Another way in which OER are democratising education is through the use of textbooks. Textbooks are a costly proposition. A study in Brazil found that for 75% of students studying at the University of Sao Paulo, the cost of acquiring textbooks was higher than a family’s monthly income. In the USA, textbooks cost four times the rates of inflation and in Wasington State, Community Colleges are developing OER textbooks. Likewise the government of SAouth Africa has decided that they will opt for OER textbooks.

National governments in developing countries should seek to promote and *sustain an enabling environment* in which the OER movement can flourish. They need to:

- develop an ICT in Education policy
- propose a vision and strategy for not just developing OERs but also for using them at all levels: primary, secondary and tertiary—since the maximum number of students (upto 90%) will be affected at the basic levels.
- recognise OER-development at par with academic publications to reward faculty in promotions.

What incentives and other institutional mechanisms and processes need to be put in place to facilitate the growth and mainstreaming of OER in educational institutions? Some of the initiatives need to include:

- developing an ICT policy within the institution
- elaborating a policy on copyright
- providing incentives for faculty members such as increments and recognition of OER towards promotions
- making the development of OER a job requirement at the time of recruitment

OER can radically change the landscape of teaching-learning in the twentieth century. OER can contribute to the creation of genuinely inclusive knowledge societies. However, this is a process which takes time. Together, we can do it.

The emphasis is on empowerment. The OER movement can help the process of democratising education by

1. Involving all kinds of stakeholders to participate, collaborate, create and share;
2. Encouraging consumers to become the producers of knowledge;
3. Enabling us to harness the wealth of tacit knowledge across the globe to address the great development challenges of our time.

Thank you for your kind attention.

Further References

Conference Website: <http://ici12.oum.edu.my/onapp/content.php?act=SW50cm9kdWN0aW9u>