Towards Sustainable OER

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Transcript

SLIDE 1
Good morning. It is an honour to be invited to the 6th EFQUEL Innovation Forum 2011. I am very grateful to Ulf-Daniel Ehlers for giving me this opportunity to bring to you some perspectives on how Open Education Resources (OER) can be harnessed to increase access, improve quality and cut the costs of education in the global south.

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I bring to you greetings from my President Sir John Daniel and colleagues at the the Commonwealth of Learning, an intergovernmental body, established by Commonwealth Heads of Government and located in Vancouver, Canada with an office in Delhi. Our motto is 'learning for development'.

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We work in 54 Commonwealth Member States in all the regions of the globe as you can see from this map, and most of my examples will be from these countries.

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Our mission is to support Commonwealth Member States and institutions to harness the potential of distance education and Information and Communication Technologies for expanding access to education and training.

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My topic today is 'Towards Sustainable Open Education Resources (OER)'

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I will first look at why we need OER, and will then focus on how OER are being used in low-resource countries. I will then reflect on the key challenges that need to be addressed if the OER movement has to attain a critical mass and will conclude with some initiatives that could help us address these challenges and advance us towards achieving sustainable OER.

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But first, why do we need OER? Let me tell you the story of a visit to a small West African country some

years ago. Ministry colleagues announced that they had improved the quality of education in the country. When I asked what was the evidence, they were very clear. Until two years ago they could provide only one text book for six students. Now they were able to give one textbook per student. This helps to illustrate the dire needs of many countries in the developing Commonwealth.

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The Commonwealth has a population of 2 billion people and of these 60% are under the age of 25. They are in need of education and training but lack of resources in many countries presents a major barrier to human resource development. 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%.

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Likewise the global participation rates in secondary education are about 65% while in SSA only 30% of those who complete primary education can hope for a place in secondary school. Developing country governments are looking for alternative means of providing access to quality education to their citizens. Opening up education in various ways is one such option. And open universities and open schools are being established at a rapid pace.

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But providing access is not enough. It is important to ensure successful outcomes. Let us see what one research study tells us. 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.

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

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The penetration of OER in the developing world has been slower than in the industrialized countries. Yet there are emergent examples which if replicated and scaled up, can bring enormous benefits. I will take up seven of them.

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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.

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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.

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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 can radically reduce the costs of providing quality teacher training.

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My oganisation the Commonwealth of Learning has initiated 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 with support from the William and Flora Hewlett Foundation. This has not only established communities of practice but has helped teachers and institutions save time and money by collaborating on the content development.

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The Virtual University for Small States of the Commonwealth (VUSSC) is a consortium of 32 small states of the Commonwealth which have come together to develop capacity in online course development. 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 online courses are now training other colleagues.

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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.

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We have usually seen a one-way flow of knowledge from the developed to the developing world. OER can provide for a global exchange of knowledge. A lecturer at the University of Ghana, Medical College developed a simple procedure for a Caesarian section and video-taped it. It is now being used in the Netherlands. Similarly a lecturer at the Kwame Nkrumah University of Science and Technology, Ghana, who also happens to be a world authority on the buruli ulcer has developed an OER module which is being used by the World Health Organisation and the University of Michigan.

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While we can see the benefits emerge, several challenges remain. What are some of the key barriers that prevent mass take-up of OER? One major barrier is awareness. If you ask teachers in remote schools in India if they've heard of OER, the answer is no.

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This Slide gives you an indication of the digital divide across the world. While in North America, there are over 80 computer and internet users per 100 persons, in Africa, the number of computer and internet users is less than 10 per 100 persons. So if we look at OER as 'technology' we certainly start with a very major disadvantage. Can we shift the discussion to the social domain? The present debates in OER are too focused on technology and there is rarely any discussion on issues such as stakeholder engagement and the politics of power.

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As Manuel Castells (2009:50) put it:
 ....there is a fundamental form of exercising power that is common to all networks; exclusion from the network….However, because the key, strategic networks are global, there is one form of exclusion—thus, of power—that is pervasive...: to include everything valuable in the global while excluding the devalued local.

Castells (2009) explains that the network-making power operates on the basis of two mechanisms: i) the ability to constitute, program and reprogram networks and ii) the ability to connect and ensure cooperation. Many important stakeholders of education in Africa, South Asia and Latin America may be far beyond this network-making power due to regional, gender, class and ethnic factors. They are therefore excluded from these networks. Is it perhaps because of these inequalities that institutions and individuals from the resource-poor communities have had a limited role in the OER movement?

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What is the situation at the institutional level? Many educational institutions have traditional governance structures and teacher-centred pedagogic models. The OER initiative requires a learner-centred and decentralised approach. There is then a basic contradiction between the centralised and decentralised OER approach. Will OER thrive in closed educational settings? The institutional bullock cart is pulling the OER aeroplane. If only the driver of the bullock cart became fully aware of the potential of the plane, the institution would certainly take off! How can we make all stakeholders partners in this movement?

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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 didnt 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.

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Now that we have seen some of the key challenges, what strategies do we need to make the development

and use of OER sustainable? I'll highlight the need for strategies which include policy advocacy; use of appropriate technologies; the need for localization and the issue of financial viability.

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To begin with policy advocacy. UNESCO and COL collaborated with the US Department of Education to develop policy recommendations through international consultations which concluded in Paris last December.

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These recommendations require governments and higher education institutions to develop policies to support the creation and re-use of OER; develop capacity in OER; and support the improvement of national ICT infrastructures.

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UNESCO and COL have also developed International Guidelines for the use of OER for five key constituencies: governments, institutions, teachers, students and quality assurance bodies. These are now in the public domain at our respective websites and would benefit greatly from your feedback.

SLIDE 29
COL has developed various resources to generate awareness of OER and their uses. Please look at the 'Basic Guide to OER' developed jointly by UNESCO and COL and available at our website.

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Another way to encourage the sustainable use of OER is to use technologies that are accessible, available and affordable. Here you can see village women learning about goat-rearing in their local language using basic cell phones. Community radio and TV are re-emerging as media through which OER are disseminated, such as health training for rural women in India using community radio and English Language Teaching to millions in Bangladesh using TV and mobile phones.

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Localisation is at the heart of the OER process. A PhD thesis submitted in March this year to the Brigham Young University, US examines how OER are being used in 12 Community Technology Centres in remote regions in Nepal for providing non-formal education.

The scholar Tiffany Zenith Ivins concludes that the successful adoption of OER depends on effective localization and proposes 4 principles:

1. It is important to involve the locals and cast the OER into the language of the select constituency--for example, a housewife speaks differently from a shopkeeper.

2. Second, a community of practice is essential as it bolsters localisation. The community interacts through group conversations, or through social media and learn from each other.

3. Third, the localization must be done in appropriate formats, which could be audio, text, video, wall newspaper etc.

4. The fourth principle is that effective localization is proportional to the understanding of local contexts. While these principles have emerged from a non-formal educational project, they are equally relevant to making OER sustainable in formal educational environments.

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Policy makers are concerned about the financial viability of using OER. Let me highlight three different models that could be sustainable:

TESSA: This was initially funded by donors such as Hewlett, among others but by involving the stakeholders at every stage of the process, the partners have now taken on the responsibility of committing their own financial resources to develop, duplicate and distribute the resources to their staff and students.

CONNEXIONS: Funded by donors initially, it is now a consortium of 20 for-profit and non-profit entities. For example QOOP shares revenues from books printed using Connexions materials.
NPTEL is a state funded initiative and is sustainable for that reason.

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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 as Wayne has demonstrated through his presentation on the OERU.

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.

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Keeping these developments in mind, my colleagues Dr Bala and Dr Abdurrahman and I attempted to redefine OER, in a paper published in the American Journal of Distance Education. We placed the emphasis on the stakeholder rather than on technology and on process rather than product.

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The phenomenon of OER is an empowerment process, facilitated by technology in which various types of stakeholders are able to interact, collaborate, create and use materials and processes, that are freely available, for enhancing access, reducing costs and improving the quality of education at all levels.

The emphasis is on empowerment. The OER movement can help the empowerment process in education by:

i) Involving all kinds of stakeholders to participate, collaborate, create and share;

ii) Encouraging consumers to become the producers of knowledge;

iii) Enabling us to harness the wealth of tacit knowledge across the globe to address the great development challenges of our time.

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On that note let me thank you for your kind attention.