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Transforming education with OER

Professor Asha Kanwar, incoming President of the Commonwealth of Learning (COL), looks at open educational resources for tertiary education from a developing world perspective.

Expanding access to quality tertiary education is a critical challenge for developing countries. Faced with burgeoning demand for higher education, open and distance learning (ODL) is now deployed by many conventional institutions. An important way of transforming education through ODL is through the development of open educational resources (OER).

OER have penetrated into the developing world slower than in the industrialised countries. Yet there are emergent examples that give an indication of how OER are being used in low-resource contexts – improving availability of materials, enhancing the quality of education, and reducing the costs.

Availability. 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 per cent 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, a nice instance of South-South collaboration.

Quality. The Indian Institutes of Technology (IITs), in partnership with the government, have made their engineering and technology courses available as OER. These are being used in over 500 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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Costs. Teacher Education in Sub-Saharan Africa (TESSA), a partnership between the UK Open



University 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 in 2010 alone, and the free materials as well as the sheer number of users can radically reduce the costs of providing quality teacher training.

Collaborative development

COL 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.

The Virtual University for Small States of the Commonwealth (VUSSC) is a consortium of 32 small states which have come together to develop capacity in online course development. Several need-based courses – on such subjects as disaster management, tourism, entrepreneurship and fisheries – have been completed and are available on COL's website. Teachers who had never developed online courses are now training other colleagues.

Access can be opened up to new constituencies through translations. China Open Resources for Education (CORE) has translated 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.

Two-way knowledge flow

Knowledge has in the past flowed in one direction only, from the developed to the developing world. In contrast, 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 videotaped 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 Organization and the University of Michigan.

Challenges

While we can see the benefits emerge, several challenges remain, foremost of which is the 'digital divide' between rich and poor nations and communities. While in North America there are over 80 computer and internet users per 100 people, in Africa, the number of computer and internet users is less than 10 per 100. So if we look at OER as 'technology', we certainly start with a major disadvantage. 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.

The exclusion of important stakeholders from networks may take place due to regional, gender, class and ethnic factors. Because of inequalities, institutions and individuals from resource-poor communities may have a limited role in the OER movement. At another level, many educational institutions have traditional governance structures and teacher-centred pedagogic models. In contrast, the OER initiative requires a learner-centred and decentralised approach.

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A recent survey of how OER are being used in 13 Asian countries sums 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 did not 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 intellectual property and copyright issues. Concerns regarding competition and revenues were also raised.

Awareness. In order to raise awareness in more remote communities, COL has developed a *Basic Guide to OER* developed jointly with UNESCO. UNESCO and COL also launched the *International Guidelines for the Use of OER*. These are meant for five constituencies: governments, institutions, teachers, students and quality assurance bodies.

Localisation is at the heart of the OER process. A PhD thesis submitted in 2011 by Tiffany Zenith Ivins, *Localisation of Open Educational Resources in Nepal: Strategies of Himalayan Knowledge-Workers*, examines how OER are being used in 12 Community Technology Centres in remote regions in Nepal for providing non-formal education. The study concludes that the successful adoption of OER depends on effective localisation and proposes four principles:

- First, it is important to involve local people and cast the OER into the language of the select constituency – for example, a housewife speaks differently from a shopkeeper;
- Second, a community of practice is essential as it bolsters localisation. The community members interact through group conversations, or through social media, and learn from each other;
- Third, the localisation must be done in appropriate formats, which include audio, text and video;
- The fourth principle is that effective localisation is proportional to the understanding of local contexts.

Financial viability. Policy-makers are concerned about the financial viability of using OER. Three different models currently in use demonstrate good solutions:

- TESSA (www.tessafrica.net): this was initially funded by donors, but by involving the local institutions at every stage of the process, these 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 (www.cnx.org): funded by donors initially, this is now a consortium of 20 for-profit and non-profit entities. For example, the for-profit QOOP shares revenues from books printed using Connexions materials;
- The National Programme on Technology Enhanced Learning (NPTEL) (<http://nptel.iitm.ac.in>) is funded by the Government of India and is sustainable for that reason. In many countries, including China and Vietnam, it is primarily the state rather than philanthropic organisations that has come forward to support OER initiatives.

Uses for development

The general trend in the developing world is to use OER to address certain core needs. For instance, there is a tremendous demand for qualifications at all levels, secondary as well as post-secondary. OER are not simply seen as adding value to existing educational provision, but also as a route to earning credentials.

The only way to serve the unreached constituencies in remote and distant locations is through the use of appropriate technologies rather than computers alone.

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In planning for OER it is appropriate to place the emphasis on the stakeholder rather than on technology, and on process rather than product. The emphasis is on empowerment. The OER movement can help transform education by:

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

Contact Details

Professor Asha Kanwar takes up the post of President and Chief Executive Officer of the Commonwealth of Learning on 1 June 2012. She has been Vice President since 2006 and Programme Director since 2007. She joined COL as Education Specialist, Higher Education, on 1 March 2003 within the context of open and distance learning (ODL). Before joining COL, Professor Kanwar was a consultant in ODL at UNESCO's Regional Office for Education in Africa (BREDA) in Dakar, Senegal. She has made significant contributions to gender studies, especially the impact of distance education on the lives of Asian women.

The **Commonwealth of Learning** is an inter-governmental agency created by Commonwealth Heads of Government to encourage the development and sharing of open learning and distance education knowledge, resources and technologies. COL is funded by voluntary contributions by Commonwealth member governments.

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