What are Open Educational Resources?

Open Educational Resources are digital learning resources offered online (although sometimes in print) freely and openly to teachers, educators, students and independent learners in order to be used, shared, combined, adapted and expanded in teaching, learning and research. They include learning content, software tools to develop, use and distribute, and implementation resources such as open licences. The learning content is educational material of a wide variety, from full courses to smaller units, such as diagrams or test questions. It may include text, images, audio, video, simulations, games, portals and the like.

What are the origins of the Open Education and Resources (OER) movement?

The OER movement had its origins around 2000 and gained considerable visibility and momentum as the prestigious Massachusetts Institute of Technology (MIT) launched its large-scale OpenCourseWare (OCW) programme in 2001. UNESCO recognised the potential of OER for developing countries and coined the term Open Educational Resources in 2002, becoming an important player in raising global awareness, as well as acting as a strong advocate of OER in the context of the Education for All movement. The William and Flora Hewlett Foundation has been instrumental in the OER movement through financial support and advice to numerous OER projects around the world. In 2005, the OpenCourseWare Consortium was established, which currently has over 300 education institutions and associated organisations in almost 50 countries as members. Also the Commonwealth of Learning should be mentioned as an important actor in the global OER movement.

In 2006, the Open Universities of the United Kingdom and the Netherlands engaged in a significant way in the OER movement, offering OER learning materials for independent learners. In 2007, the Cape Town Open Education Declaration was published, more or less similar to the (2003) Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. And in 2010, the first two UNESCO Chairs in OER were established in Canada and the Netherlands.

During the first decade, most initiatives were undertaken by innovative individuals and higher education institutions. There was an important expansion of OER initiatives in many countries, in different educational sectors and with diverse objectives and approaches. Now, at the beginning of the second decade, there are promising signs of the development of national OER strategies and policies.

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The increased technical capabilities have enabled the development of new initiatives derived from the OER movement. E-learning and MOOCs (Massive Open Online Courses) are part of these new tools influencing higher education.

The word MOOCs entered wide circulation only during the first half of 2012 and was ubiquitous by the end of the year. MOOCs moved quickly from an academic curiosity to an essential consideration in every university’s strategic planning: even those that signalled no intention to jump aboard the MOOCs bandwagon were required to have an institutional position.

The main MOOC platforms in the U.S. were launched in 2012. Within less than two years they have attracted millions of students from all over the world and have hosted hundreds of online courses. Expected benefits include wider access to quality education, development of low-cost provision models, more flexibility and possibly innovation in international development. It remains to be seen, however, whether MOOC platforms will identify viable business models. Forthcoming disruption also includes the impact of OER and MOOCs on bricks-and-mortar universities regarding pedagogy and the student experience, internationalisation strategies and business models.

**What is E-learning?**
E-learning refers to the use of information and communications technology (ICT) to enhance and/or support learning in tertiary education. But this covers a wide range of systems, from students using e-mail and accessing course work on line while following a course on campus, to programmes offered entirely on line.

**What are MOOCs?**
Free of charge online courses, designed for large numbers of people to take them at once. They encourage peer-to-peer learning and award certificates rather than academic course credit.

**What are the main drivers behind the expansion of the OER movement?**
There are technological, economic, social and legal drivers behind the expansion of the OER movement. Educators and researchers relish the chance to exploit new broadband capabilities, improved technologies for creating and distributing content, and greater interactivity. The cost of these technologies is dropping. Sometimes the driver is competition with other institutions, using OER to attract new students and to improve public relations. But, most importantly, there is a strong sense in different parts of the educational community that OER offer a major opportunity to promote the notion of sharing knowledge as a public good.

**What are the expected benefits?**

*Open and flexible learning opportunities*
OER offer a broader range of open and flexible learning opportunities, thereby facilitating informal and lifelong learning. The ease of access to high quality and relevant learning materials for any individual may promote broader participation in education. The use of OER is not restricted to distance education or e learning since OER can also find their way in more traditional learning environments where they can help to enrich the learning experience. OER also have a strong social purpose since they can bring learning opportunities to hitherto disadvantaged and excluded groups of learners, while they also help to mitigate the isolation of the diaspora of scholars.

*Increased efficiency and quality of learning resources*
The sharing and use of OER may result in increased efficiency and quality in the development of new materials, courses, or programmes. Collaboration and sharing of learning resources over the World Wide Web and the continuous potential revision of these materials not only keep them up-to-date and relevant, compared with resources that are published in more traditional ways, but their exposure to large communities of learners and educators also enhances their quality. Teachers have easier access as well to high-quality learning resources.

*Cost-efficiency of OER*
OER may also increase efficiency by reducing duplication and promote inter-institutional collaboration and sharing. High-quality learning resources are produced and shared at lower cost as a result of OER. Typically, OER also drastically reduce the cost of accessing learning resources for students, teachers, and institutions.
The innovative potential of OER

Because OER can be continuously adapted, reshaped, and transformed, learners become active participants in education by actively constructing what is learned, not by passively absorbing what has been prepared. In addition, the boundaries between learners and teachers become blurred as learners also engage in the process of continuous improvement of the learning resources. As the history of OER over the past decade has shown, the existence and increased availability of OER also force educational institutions to transform their educational practice by investing more in the high-quality delivery of educational services than in the mere production of content.

Systemic transformative capacity

Using, producing, and sharing OER has benefits for individual learners, teachers, institutions, countries and the global community at large. In fact, it can be seen as a systemic transformation in itself since it affects all parts of the educational system.

What are the frequent challenges?

Language and cultural diversity

At present most of the OER learning materials are in English and from Anglo Saxon countries, which raises the risk of linguistic and cultural hegemony. However, substantial efforts have already been put into translation, adaptation and localisation for other cultural settings, for example, in China. Moreover, the volume of OER learning materials available in other languages (Spanish, Portuguese, French and many others) and originating in diverse cultural contexts is growing significantly.

Connectivity

It is true that ease of connectivity is unequal around the globe. Learners and institutions in regions with no, low, or prohibitively expensive connectivity may obviously find it more difficult to access OER. Local measures of adaptation and facilitation may reduce this situation, even if not eliminating the problems completely. Moreover, it is only a matter of time before connectivity will be available in many more parts of the world, with a leapfrogging to the use of mobile wireless networks.

Quality

It is sometimes suggested that materials given away for free cannot be of high quality. But many of the institutions involved in OER so far seem to have high reputations internationally or in their own countries. Moreover, new ways of assuring and assessing quality are being developed, in co-existence with traditional quality assurance methods and mechanisms, some of them being copied from other parts of the open digital movement. Peer review of OER learning materials can be combined with user comments and ratings on the web. Adoption by recognised bodies in specific disciplines also offer great added value in this respect. Philanthropic organisations and National Governments have begun to address the criticisms of OER quality.

Copyright and publishers

While information technology makes it possible to replicate and distribute content worldwide at almost no cost, legal restrictions on the re-use of copyrighted material is a constraint. Frustrated by this obstacle, academics, teachers and learners worldwide have started to use open licences and to create a space in the Internet world – a “creative commons” – where people can share and reuse copyright material without fear of being sued. Copyright owners agree or give permission for their material to be shared through a generic licence that gives permission in advance. The licensing model is now ported into the legal framework of 70 countries across the globe, and its use is growing exponentially.

Sustainability

Publishers are not alone in being challenged to build their business on new sustainable models. Educational institutions face their own financial sustainability struggle. Pilot projects and small-scale activities can be undertaken with dedicated project funding. The difficulty comes with large-scale initiatives and a possible conversion of all materials to OER, which require a substantial budget for the development and ongoing maintenance of the materials. There are different financial approaches to ensure the sustainability of an institutional OER effort, and some institutions have managed to do so. However, there is no clear-cut general solution. This bottleneck could be overcome if governments were to create the appropriate conditions and incentives for OER in their national
educational systems, such that bottom-up institutional approaches and top-down governmental policies would come together.

References

Find out more
OECD Open Education Resources: www.oecd.org/edu/ ceri/centreforeducationalresearchandinnovationceri-openeducationalresources.htm
OECD Skills Beyond School: www.oecd.org/education/skills-beyond-school
Open Courseware Consortium: www.ocwconsortium.org
The Cape Town Open Education Declaration: www.capetowndeclaration.org
Creative Commons: http://creativecommons.org

Forthcoming event
The international higher education revolution: Impacts on mobility, qualifications, networks, University of London and Regent's University London, 11-12 December 2013. www.obhe.ac.uk/conferences/confflyer_dec13