OPEN PRAXIS

INTERNATIONAL
COUNCIL FOR OPEN AND
DISTANCE EDUCATION

Embracing openness:
The challenges of OER in Latin American education

Nadia Paola Mireles Torres
Doctoral student, University of Calgary (Canada)

Abstract

The Open Educational Resources (OER) movement and the Open Access began only over a decade ago. During this period, the progress of the Open Educational Resources movement took place in developed countries for the most part. Recently, new projects have begun to emerge with a strong emphasis on open education. Yet, the concept of openness in education is a very innovative one, and it has not been embraced by many. In some regions, such as Latin America, OER is still in its early stages and faces many challenges that need to be addressed. Some of these challenges include awareness raising and capacity development. But there is a bigger challenge to face: embracing openness as a core value and an institutional strategy. In this paper, we offer a brief overview of the meaning of the term "open" in education and we analyze the challenges facing the OER in Latin American countries.

Keywords: Open education, flexible learning, Latin America, developing countries, Spanish-speaking countries, higher education

Introduction

A large number of authors (Atkins, Brown, & Hammond, 2007; D'Antoni, 2009; Friesen, 2009; Hilton III, Wiley, Stein, & Johnson, 2010; Humbert, Rébillard, & Rennard, 2008; Lane, 2008; Morgan & Carey, 2009; Plotkin, 2010; Wiley & Gurrell, 2009; Witherspoon, 2002) attribute the beginning of the Open Educational Resources (OER) to the Massachusetts Institute of Technology (MIT) Open CourseWare (OCW) initiative, when in 2001 the MIT announced that "virtually all its courses would be posted on the Web, available for use by faculty members and students around the world, at no charge" (Witherspoon, 2002, p. 3). Only one year later after the launch of the initiative was announced, and even before material was posted online, the terms OCW and OER became popular concepts and gained some international attention. In the following years, OCW initiatives gradually emerged around the world. The increasing number of OCW initiatives led to the emergence of the OER movement, with the aim "to increase access to knowledge and educational opportunities worldwide through sharing educational content" (D'Antoni, 2008, p. 8).

By 2012, the OER movement has achieved great momentum. Announcements for new open courses and the establishment of OCWs went from institutional announcements at Higher Education Institutions (HEIs) websites to full articles in the media, such as the *New York Times* (Vaidhyanathan, 2012). From the increase in the announcements, it could be said that joining the OER movement has suddenly become an institutional urgency.

The big and rapid success of some open learning projects and events supporting a culture of openness caught international attention. In only a few months:

- The edX[1] project from MIT and Harvard is announced, with more than 150,000 people registered on its first course. Around 7,000 receive certificates.
- Coursera[2] is launched offering everyone around 120 courses from the top universities for free.

- Harvard[3] announces that the high cost of subscriptions to journals cannot be sustained.
- Thousands of researchers from the UK sign a petition to support publishing in Open Access (OA) journals and to boycott some of the largest publishing houses ("Life after Elsevier," 2012).
- More professors and institutions continue to open their courses to the world.

These projects could be setting the basis for the open education generation and are clear examples that global access to knowledge and the democratization of education are possible. Still, thousands of institutions around the world continue to work under "traditional" teaching models with systems opposing a culture of openness that, rather than being defined as closed, are perceived as "broken" (Green, 2012).

Open education—What does "open" mean in education?

The word "open" is becoming a familiar term in the education field. Yet, the concept of open education is a very innovative one. Very few institutions are fully embracing the concept and are enabling all the necessary elements to provide access to a truly open education. But what is the meaning of "open" in education? In order to define it, it is important to revise some of the common terms and concepts in the "openness" field.

At the beginning of the 21st century and for almost the rest of the decade, the terms Open Access (OA), Open Educational Resources (OER), and Open CourseWare (OCW) were concepts only familiar to a relatively small audience in the education field.

The definition of OA was initially established in the Budapest Open Access Initiative,[4] in 2001. The term describes "published academic papers, books, reports, and other periodicals that are electronically available to readers without financial or technological barriers" (Kumar, 2009, p. 78).

Furthermore, the term OER was defined for the first time at the Forum on the Impact of OCW for Higher Education in Developing Countries, held by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2002, and ratified in the 2012 World OER Congress. During the congress, the Paris 2012 Declaration on Open Educational Resources (UNESCO, 2012) was formally adopted, defining OER as:

teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions (UNESCO, 2012).

Even though the definitions may vary, according to Vukovic and Martin (as cited in D'Antoni, 2009) the fundamental principle underlying the definition of OER is the freedom to share knowledge, and that knowledge should be legally, socially, and technologically open.

OA and the OER movement have been the main enablers of a new culture of openness in education. Open education is not limited to enabling access to knowledge in the form of articles, courses, or any other materials. In 2007, a meeting was held "to accelerate efforts to promote open resources, technology and teaching practices in education," and the Cape Town Open Education Declaration (2007) was signed. The Declaration did not provide a specific definition of open education, but it called to all stakeholders, "educators, learners and organizations to share their educational materials freely and openly, to make use of OER, and to create incentives for participation in the movement" (Gurrell, 2008, p. 16). It also called to all education stakeholders to commit and work together for an open, flexible and effective education for all. The Declaration states that:

open education is not limited to just OER. It also draws upon open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices that empower educators to benefit

from the best ideas of their colleagues. It may also grow to include new approaches to assessment, accreditation and collaborative learning (Cape Town Open Education Declaration, 2007).

The concept of open education is addressed in the literature using different terms such as open learning, education 3.0, open schooling, participatory learning, among others.

A broad but clear definition of open education is that given by Butcher, who defined open learning as "an approach to education that seeks to remove all unnecessary barriers to learning" (Butcher, 2011, p. 6).

Other authors use different terms as an approach to defining open education. For instance, Keats and Schmidt (as cited in Keats, 2009) address open education using the term Education 3.0., in which

The role of the person learning (student in today's terminology) is heightened and institutional boundaries are much more porous than they are in most current higher education systems. The freedom of learners to reuse educational materials freely, under only the requirements of academic goals in a particular context, is vital (Keats, 2009, p. 54).

Abrioux & Ferreira (2009, p. 3) talk about open schooling, referring to it as "the physical separation of the school-level learner from the teacher, and the use of unconventional teaching methodologies, and information and communications technologies (ICTs) to bridge the separation and provide the education and training".

Although these terms may use different approaches to define open education, the definitions above refer to three specific key aspects of open learning:

1. Access to knowledge is a right: knowledge is a public good and no barriers should exist to access it.
2. Learning is ubiquitous and flexible: there is freedom in the curriculum, methodology, and materials. It is acquired using other methods and methodologies, rather than through traditional teacher's lectures inside a classroom or through the also-traditional e-learning approach of restricted online access to a specific group of students.
3. Learning outcomes should be recognized, assessed, and accredited, regardless of how they were gained.

Open educational resources movement in Latin America and the Caribbean

The OER movement is identified as an approach that will have a profound impact on teaching, learning and research practices for decades to come (Plotkin, 2010). However, since the OER movement began, the movement has grown mainly in developed countries, with some exceptions such as Africa, Brazil, India or China. While the OER movement continues to evolve internationally and new open education initiatives emerge around the world, in Latin America and the Caribbean region (LAC), there is a significant lack of awareness and the level of involvement in the OER movement is still very low. According to D'Antoni (2007), the impact of OER on the developing world is still modest with respect to the enormous need for it. Developing countries have been more spectators rather than participants of the OER movement.

Evidence of such low involvement is the small number of OCW in the LAC region, as compared to those countries where the movement has grown. By august 2011, the OCW Consortium had around 200 Higher Education Institution (HEI) members from around the world, only 31 of which (approx. 15%) belonged to Latin America. The OCW members by country were: Brazil (6), Chile (2), Colombia (5), Costa Rica (1), Dominican Republic (1), Ecuador (1), Mexico (4), Peru (2), Puerto Rico (2), and Venezuela (7).

Some Latin American HEIs from Brazil, Colombia, Costa Rica, and Mexico have embraced the OER movement by establishing OCW initiatives, becoming champions in this region and gaining valuable experience. For instance, in 2011, the University of Costa Rica received the award for OpenCourseWare Excellence in Courseware Category from the OCW Consortium.

Challenges for OER in LAC

The growth of the OER movement has not been free from challenges. Various authors (Browne, Holding, Howell, & Rodway-Dyer, 2010; Hodgkinson-Williams, 2010; Hylén, 2007; OECD, 2007; Witherspoon, 2002) address the challenges that have come through OER in the past years. Most of the authors coincide that the first challenge to address is awareness raising and promotion of OER. Most authors do not differentiate between the challenges facing developed and developing countries.

D'Antoni (2008) analyses the challenges from the perspectives of developed and developing countries. In 2006, only a few years after the OER movement began, the UNESCO OER inter-national community (comprised of around 600 members from 98 countries) was asked to identify priority issues on OER (D'Antoni, 2008). The list comprised 14 challenges. The first three challenges identified in the developed world were: the need for raising awareness and promotion, the creation of communities and networking, and the sustainability of OER. Even though only 28 (6%) of the respondents belonged to Latin American HEIs, the survey showed that Latin America faces different challenges on OER than developed countries. With such a small sample, the responses from this region may not accurately reflect the whole of the Latin American perspective on the challenges on OER. However, research on OER in LAC is very scarce and no other studies on the challenges of OER in this region were found to support this paper. The low number of respondents also reflects that OER in LAC is only in the early stages of development and still has a long way to go. The very first challenge in the LAC region is capacity development, followed by communities, networking, awareness raising, and promotion.

Capacity development

While for developed countries capacity development is the sixth issue in order of importance, it is the very first priority issue for the LAC region. For UNESCO, capacity development refers to the skills required to harness OER effectively. Some of these skills are, for instance: advocacy and promotion of OER, legal expertise relating to content licensing, developing business models that justify the use of open licensing for creators of educational content, program course and material design and development expertise, technical expertise, managing networks/consortia of people and institutions to work cooperatively, and monitoring and evaluation.

Implementing and sustaining an OCW initiative is not an easy task. It requires great financial, technical, and human resources as well as theoretical knowledge on how to establish an OCW. Friesen (2009) states that the lack of knowledge, a lack of technical ability and lack of pedago-gical skills are the factors impeding the use and growth of capacity at certain institutions. Butcher underlines the importance of understanding the capacity-building process. He states that, to build effective capacity, the challenge is to understand "that making openness work productively requires investment, time, and energy, but that this is justified by the significant richness that it can generate" (Butcher, 2010, p. 17).

Communities and networking

Communities and networking are second in the list of challenges for both developed countries and the LAC region. Lane (2008) and Witherspoon (2002) emphasize the importance of creating

a community of interest at the initial stages of an OCW initiative that will serve as a champion to promote the OER within the institution. The authors also explain that a "successful community will most likely be a community of interest around a topic, a discipline or an issue but some may be construed as communities of practice where it involves professional or semi-professional practitioners" (Lane, 2008, p. 4).

D'Antoni (2008) stated the importance of promoting regional, linguistic and topic-specific communities that will promote the development of OER. For many LAC countries, Spanish is the primary language and people are not necessarily fluent in English. In order to help the growth of the OER movement, it is important to foster the creation of Spanish-speaking communities and networks. In this sense, Aguilar & Montoya (2010) documented the creation of a Mexican community of practice in which around 150 teachers from 20 schools took part, to learn about the concept of OER and to learn how to incorporate new technologies into their teaching practices. Some of the results were the creation of workshops, videos and other materials, even master's degree theses on the topic. The Regional Latin American Open Community for Social and Education Research (Comunidad Latinoamericana Abierta Regional de Investigación Social y Educativa—REDCLARISE[5]) is a community promoting OER in the LAC countries, with participants from Argentina, Colombia, Costa Rica, Mexico, and Uruguay. The community provides bibliography on OER and developed some training workshops in 2011. However, the majority of the references provided belong to studies and research published in English, diminishing the possibility of impact and awareness to those not fluent in this language.

Awareness raising

For developed countries, awareness raising and promotion of OER is the very first challenge to address, while in the LAC countries this issue is third on the list of priorities. It could be assumed that in countries with more involvement in OER such as developed countries, the level of awareness would also be higher and therefore it would not be a priority to cater for. Yet, even though the OER movement continues to grow in developed countries and more HEIs get involved, many (Alperin, Fischman, & Willinsky, 2008; Friesen, 2009; Plotkin, 2010) insist on the importance of building a knowledge base on OER and to keep promoting and raising awareness on the OER movement at a global level.

Other issues to address

As mentioned, the list provided by D'Antoni (2008) includes other 11 challenges to address. These are: research, quality assurance, financing, policies, sustainability, learning support services, assessment of learning, technology tools, standards, copyright and licensing, and accessibility. The entire list of challenges is not reviewed in detail in this article, as the objective is to give an overview of the challenges of OER for countries where the movement has not yet grown to the same extent as in the developed world.

For those Latin American countries where English is not the primary language or countries where the concept of open education is still new, other challenges not addressed in this list may include content adaptation to cultural contexts or language barriers. Yet, a greater challenge remains for many: breaking the barriers to and embracing a culture of openness.

Embracing openness: The biggest challenge

Back in 1977, Perry (1977, p. 1) explained how "the inertia inherent in established systems is normally too strong to permit a high speed change." In this sense, it is understandable that

entering the culture of openness and embracing the OER movement will take longer for some institutions than others. At institutions that have not yet seized some piece of action towards openness, reaction ranges from curiosity to fear of losing competitiveness (Pérez-Peña, 2012).

In the OER movement, education systems face the greatest of challenges: to break the aversion to openness. Davidson & Goldberg (2009) explain how aversion to openness is a disposition against the challenge of the unforeseen and a cognitive bias. Boyle (as cited by Davidson & Goldberg, 2009) states how this bias leads to undervalue the importance, viability and productive power of open systems, open networks and non-proprietary production. This bias to change and rejection to openness may lead to a worse result: obsoleteness. Very soon, students and society will demand open courses in their own language, adapted to their culture and contexts. Keeping educational content closed will only be proof of lack of innovation, lack of quality and lack of commitment for sharing knowledge with everyone.

Even when there is no aversion, the mindset of the majorities is set on the culture of "not open." Changing the mindset of how things have worked in the past is not easy. It is not a simple shift. In the educational field, openness must be adopted as a core institutional strategy. It must be acknowledged and stated as a formal declaration, accompanied by funding, policies, trained human resources, training programs and rewards, and effective marketing strategies. Only those who are able to understand it will succeed.

OportUnidad project—EU LAC—An opportunity to address the challenges to OER in LAC

The OER movement in Latin America is on its first stages. Some countries have already taken the leadership. The "OportUnidad" project[6] is led by a group of universities from both Latin America and Europe. The Latin American partners are Universidad Virtual del Tecnológico de Monterrey (Mexico), Universidad Técnica Particular de Loja (Ecuador), EAFIT (Colombia), Universidade Federal Fluminense (Brazil), Universidad Estatal a Distancia (Costa Rica), Fundación Uvirtual (Bolivia), Universidad de la Empresa (Uruguay) and Universidad Inca Garcilaso de la Vega (Peru). As for European partners, there are four institutions: Università degli Studi Guglielmo Marconi (Italy), Universitat Oberta de Catalunya (Spain), Faculdade de Letras da Universidade de Lisboa (Portugal) and Oxford University (UK). The project, which is currently in its development phase, will develop an agenda aimed at any educational organization interested in promoting the production, reuse or use of OER. The project will contribute to address the main challenges to OER and openness in the region, and will help to develop the capacity of participating institutions, it will build a local community of interest and network, and it will raise awareness on OER and on the open education topic in the region. The project will also provide a comprehensive set of guidelines on pedagogical approaches, technological solutions, organizational frameworks and procedures, institutional business models and cooperative models that are relevant to the development of OER initiatives.

Conclusion

Openness is part of the present, not of the future of education. The access to open courses continues to arise in some countries, helping to increase learning opportunities for everyone and sharing their knowledge to the world. However, providing access to knowledge through open courses is not sufficient and is only a part of the open education movement. The *status quo* of education institutions must change radically towards a truly openness culture. Some of the changes include establishing more flexible curriculums and teaching approaches, and contemplating new methods for assessing learning occurred outside of the constraints of schools.

Even though the open education movement began more than a decade ago, many are not aware of the high impact of the open education movement or are biased against such a change. For instance, in Latin America there are scarce initiatives on open education. There is an urgent need for leadership on the topic in order to raise awareness and promote openness in education in this region. There is also a need for research on the unique challenges that Latin American region may face regarding OER.

With such few open education initiatives in Latin America, institutions from this region have an opportunity to enter the culture of openness and to share their knowledge to the world through their own particular contexts, languages and culture. Openness seems to be next natural step to take in education and the means to change the traditional education systems. For those institutions that are still afraid or reluctant to openness, they face the risk of becoming obsolete very soon.

Notes

1   https://www.edx.org/
2   https://www.coursera.org/
3   http://isites.harvard.edu/
4   www.soros.org
5   https://sites.google.com/site/redclarise/
6   http://oportunidadproject.eu/es/

References

Abrioux, D., & Ferreira, F. (2009). *Open schooling in the 21st century*. Vancouver: Commonwealth of Learning. Retrieved from http://www.col.org/SiteCollectionDocuments/OpenSchooling_web.pdf

Alperin, J. P., Fischman, G., & Willinsky, J. (2008). Open access and scholarly publishing in Latin America: Ten flavours and a few reflections. *Liinc Em Revista, 4*(2). Retrieved from http://revista.ibict.br/liinc/index.php/liinc/article/view/269

Atkins, D. E., Brown, J. S., & Hammond, A. L. (2007). *A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities*. Report to the William and Flora Hewlett Foundation. Retrieved from http://www.hewlett.org/uploads/files/Hewlett_OER_report.pdf

Browne, T., Holding, R., Howell, A., & Rodway-Dyer, S. (2010). The challenges of OER to Academic Practice. *Journal of Interactive Media in Education*, *2010* (01). Retrieved from http://jime.open.ac.uk/jime/article/view/2010–3

Butcher, N. (2010). *Open Educational Resources and Higher Education*. Vancouver: Commonwealth of Learning & Paris: UNESCO. Retrieved from http://www.col.org/SiteCollectionDocuments/OER_Open_Educational_Resources_and_Higher_Education.pdf

Butcher, N. (2011). *A basic guide to open educational resources*. Vancouver: Commonwealth of Learning & Paris: UNESCO.

Cape Town Open Education Declaration. (2007). Cape Town Open Education Declaration: Unlocking the promise of open educational resources. Retrieved from http://www.capetowndeclaration.org/read-the-declaration

D'Antoni, S. (2007). Open Educational Resources and Open Content for Higher Education. *Revista de Universidad y Sociedad del Conocimiento (RUSC), 4*(1). Retrieved from http://www.uoc.edu/rusc/4/1/dt/eng/dantoni.pdf

D'Antoni, S. (2008). *Open Educational Resources: The way forward*. Paris: UNESCO. Retrieved from http://unesdoc.unesco.org/Ulis/cgi-bin/ulis.pl?catno=157987&set=48F10DA1_3_7&gp=1&lin=1

D'Antoni, S. (2009). Open educational resources: Reviewing initiatives and issues. *Open Learning: The Journal of Open and Distance Learning, 24*(1), 3–10. http://dx.doi.org/10.1080/02680510802625443

Davidson, C. N., & Goldberg, D. T. (2009). *The future of learning institutions in a digital age.* Cambridge, MA: MIT Press. Retrieved from http://mitpress.mit.edu/books/future-learning-institutions-digital-age

Friesen, N. (2009). Open Educational Resources: New Possibilities for Change and Sustainability. *The International Review Of Research In Open And Distance Learning*, 10(5). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/664/1388

Green, C. (2012). The Obviousness of Open Policy. Technology presented at the *UNESCO 2012 OER Global Congress*, June 28. Retrieved from http://www.slideshare.net/cgreen/unesco-2012-oer-global-congress

Gurrell, S. (2008). *Open Educational Resources Handbook for Educators Version 1.0.* Retrieved from http://wikieducator.org/OER_Handbook/educator_version_one

Hilton III, J., Wiley, D., Stein, J., & Johnson, A. (2010). The four "R"s of openness and ALMS analysis: frameworks for open educational resources. *Open Learning: The Journal of Open and Distance Learning*, 25(1), 37–44. http://dx.doi.org/10.1080/02680510903482132

Hodgkinson-Williams, C. (2010). Benefits and Challenges of OER for Higher Education Institutions. Workshop Discussions at the Open Educational Resources (OER) Workshop for Heads of Commonwealth Universities. Cape Town, Africa. Retrieved from http://www.col.org/SiteCollectionDocuments/OER_BenefitsChallenges_presentation.pdf

Humbert, M., Rebillard, C., & Rennard, J. P. (2008). Open Educational Resources for Management Education: Lessons from experience. *eLearning Papers*, 10. 1–15. Retrieved from http://www.elearningpapers.eu/en/download/file/fid/19394

Hylén, J. (2007). *Open Educational Resources: Opportunities and Challenges*. Paris: OECD. Retrieved from http://www.oecd.org/edu/ceri/37351085.pdf

Keats, D. (2009). The road to Free and Open Educational Resources at the University of the Western Cape: A personal and institutional journey. *Open Learning: The Journal of Open, Distance and e-Learning, 24*(1). 47–55. http://dx.doi.org/10.1080/02680510802627829

Kumar, M. S. V. (2009). Open educational resources in India's national development. *Open Learning: The Journal of Open, Distance and E-Learning, 24*(1), 77–84. http://dx.doi.org/10.1080/02680510802627860

Lane, A. (2008). Reflections on sustaining open educational resources: An institutional case study. *eLearning Papers*, 10, 1–13. Retrieved from http://www.elearningeuropa.info/files/media/media16677.pdf

Life after Elsevier: making open access to scientific knowledge a reality. (2012, April 24). *The Guardian*. Retrieved September 12, 2012, from http://www.guardian.co.uk/science/blog/2012/apr/24/life-elsevier-open-access-scientific-knowledge

Morgan, T., & Carey, S. (2009). From Open Content to Open Course Models: Increasing Access and Enabling Global Participation in Higher Education. *The International Review of Research in Open and Distance Learning, 10*(5). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/632

Organisation for Economic Co-operation and Development (OECD). (2007). *Giving Knowledge for Free: The Emergence of Open Educational Resources*. Paris: OECD. Retrieved from http://www.oecd.org/edu/ceri/38654317.pdf

Pérez-Peña, R. (2012, July 17). Top Universities Test the Online Appeal of Free. The New York Times. Retrieved from http://www.nytimes.com/2012/07/18/education/top-universities-test-the-online-appeal-of-free.html

Perry, W. (1977). *The Open University*. Jossey-Bass series in higher education. San Francisco: Jossey-Bass Publishers.

Plotkin, H. (2010). *Free to learn: An open educational resources policy development guidebook for community college governance officials*. San Francisco: Creative Commons. Retrieved from http://www.educause.edu/library/resources/free-learn-open-educational-resources-policy-development-guidebook-community-college-governance-officials

UNESCO. (2012). *Paris Declaration on Open Educational Resources*. Retrieved from http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/Paris%20OER%20Declaration_01.pdf

Vaidhyanathan, S. (2012, July 18). Going Public the UVa Way. *Innovations. The Chronicle of Higher Education*. Retrieved from http://chronicle.com/blogs/innovations/going-public-the-uva-way/33623

Witherspoon, J. (2002). Open courseware and developing countries: Building a community. *Forum on the Impact of Open Courseware for Higher Education in Developing Countries.* Retrieved from http://www.oercommons.org/community/open-courseware-in-developing-countries-building-a-community

Wiley, D., & Gurrell, S. (2009). A decade of development. . . *Open Learning: The Journal of Open and Distance Learning, 24*(1), 11–21. http://dx.doi.org/10.1080/02680510802627746