REFLECTION

OER perspectives: emerging issues for universities

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This reflection examines some of the continuing and emerging issues in the open educational resources (OER) field. These include blending OER with university management structures; formal and non-formal OER; the need for sustainable OER business models; and expanding awareness, adoption, and use of OER. In the future, research will need to examine the concept of open educational practices (OEP) and OER issues relevant to faculty incentives and career advancement in the university. The author suggests there is no silver bullet solution to the “open” road ahead. Proprietary and open content will coexist in the education sector. OER are not a panacea for resolving all the range of global education issues and divides. OER are, however, a valuable resource that must be developed and sustained. OER may ultimately be the genuine equalizer for education and for empowering social inclusion in a pluralistic, multicultural, and imperfect world.

Keywords: OER; universities; management; emerging issues; open educational practices

The potential for open educational resources (OER) to transform the global educational landscape is immense. OER have emerged as one of the most powerful resources to transverse the global education landscape (along with the World Wide Web and the Internet) in the past century. Many advocates envision OER as a catalyst for bridging the digital divide, leveling the educational playing field between developing and developed countries and challenging the restrictive sanctions imposed on open content by proprietary providers and licensing vendors.

Today, the potential transformational capacity of OER is growing and yet many challenges remain (Kanwar, Kodhandaraman, & Umar, 2010). We must now transform the passion for OER into universal mobilization of OER practice (Butcher, 2011; Conole, 2010; Ehlers, 2008).

The progress of OER has been steady over the past decade. Today, we have innovative and open OER initiatives across the globe. Many high-quality, dedicated OER organizations in concert with many governments, universities, and scientific and cultural organizations are engaged in the advocacy, policymaking, and funding, as well as use and expansion of OER. Despite this progress, there are emerging issues for colleges and universities to consider.

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This reflection focuses on selected issues that may face universities during the next stage of development for OER. These are not all inclusive, but are intended to give the reader a synopsis of emerging issues. A definition of OER will be presented with an overview of potential benefits and challenges. This will be followed by a discussion of each issue and questions that may open subsequent dialogue and discourse across the profession.

UNESCO and Commonwealth of Learning (COL) (2011) define OER as:

**Open Educational Resources (OER):** OER are teaching, learning and research materials in any medium that reside in the public domain and have been released under an open licence that permits access, use, repurposing, reuse and redistribution by others with no or limited restrictions (Atkins, Brown & Hammond, 2007).² The use of open technical standards improves access and reuse potential.

OER can include full courses/programmes, course materials, modules, student guides, teaching notes, textbooks, research articles, videos, assessment tools and instruments, interactive materials such as simulations, role plays, databases, software, apps (including mobile apps) and any other educationally useful materials.

The term “OER” is not synonymous with online learning, eLearning or mobile learning. Many OER—while shareable in a digital format—are also printable. (p. 6)

This dialogue may help us define key research areas that are emerging among universities that will stimulate new foci for empirical analyses.

**OER: advantages and limitations**

The above definition is included to give the reader a brief frame of reference. The advantages and limitations of OER have been cited by many authors. Kanwar et al. (2010) highlighted typically cited advantages of OER particularly for educational systems in developing countries. These included:

- helping developing countries save course content development time and money
- facilitating the sharing of knowledge
- addressing the digital divide by providing capacity-building resources for educators
- helping to preserve and disseminate indigenous knowledge
- improving educational quality at all levels.

At a practical level OER advocates cite that OER can be reused, mixed, altered, localized for cultural and social contexts; you don’t need permission to use them; there are no digital rights management or restrictive licensing; and you can copy, paste, annotate, highlight, and print out *basically free of charge* (Butcher, 2011; Kanwar et al., 2010; McGreal, 2012).

Common barriers cited include the lack of awareness about OER; the university elitism that it was invented here so we’ll use our own; faculty resistance given “my content is king in my kingdom;” and of course the lobbying of many publishers who see the OER movement as a threat to their historical business monopoly over content. Content is big business in the commercial world and those models will die hard (McGreal, 2012).
From a practical–applied perspective (Butcher, 2011), OER provide teachers and students with:

- access to global content that can be adapted and localized by teachers and faculty anywhere, anytime to create new courses, modules, or lessons or enhance existing content
- more resources and choices for students to supplement their studies with value-added content
- opportunities to create diverse student and faculty learning communities that can bridge cultural, gender, and ethnic differences to promote social inclusion in our classrooms, in our communities, and in our world. OER are effective localized cultural–social–ethnic manifestations of the global village.

**OER issue 1: blending open OER with institutional management structures**

One of the most interesting emerging OER dichotomies is that the essential attribute of openness (and flexibility) for OER development, use, editing, reuse, repackaging, and distribution may be a less effective strategy for creating the future management, repository, teaching, learning, and credential frameworks that are essential for collectively moving the OER landscape forward (Conole, 2010; Ehlers, 2008). In other words, open and flexible is essential for the actual OER; however, the managerial, teaching, learning, and applied frameworks that expand openness and flexibility may require more structure to be more flexible.

At one level, this issue will require universities to examine the management structures of OER repositories as well as institutionalizing OER within current infrastructure and management systems. Moreover, this raises a recurring issue about the extent to which OER are really free (Butcher, 2011). Universities invest resources in teaching and learning in many diverse ways. The management of OER and potentially open educational practices (OEP) will increasingly require integration with institutional structures and a commitment of staff to maximize the benefits of OER to teaching and learning (Conole, 2010; Ehlers, 2008). Many universities have developed innovative OER repositories at the institutional level.

These management practices and approaches need to be investigated to identify what works well, lessons learned, and strategies for how these systems can be adapted and replicated by other universities.

Questions:

1. What management models are most effective for university OER repositories?
2. Does the academic culture of the university create barriers to institutionalizing OER and OEP?
3. As an investment towards quality teaching and learning, what level of resources is needed for OER staff and infrastructure?

**OER issue 2: formal versus non-formal uses of OER**

An OER multidimensional approach by universities necessarily *differentiates between formal and non-formal uses of OER*. Does the OER movement need a framework and structure for formal and non-formal use of OER? Formal OER, in a
pragmatic sense for higher education, may remain "optional—not required" unless we can offer the student some formal recognition (credit) for formal and informal OER use. Conversely, the versatility and diversity of OER often don’t lend themselves to the composite content packages we associate with university academic credit, nor should they. It is this OER flexibility of packaging from a one-page simulation to a formal university lesson that is inherently a key strength of OER (McGreal, 2012; UNESCO & COL, 2011).

The OERu (Open Educational Resources University) has initiated a pilot project through its OER Tertiary Education Network universities to create and offer eight first- and second-year university courses with an option to earn academic credit that could be applied toward a Bachelor in General Studies degree (Green, 2012). This project is in the early stages but reflects an innovative approach to creating value-added options for students.

Similarly, the Massachusetts Institute of Technology (MIT) and Harvard University have recently launched edX, an open platform of MIT and Harvard courses that will be freely accessible worldwide to anyone having Internet access (MIT & Harvard University, 2012). This will be available globally and students will even be able to earn certificates of mastery by demonstrating competency of course content. According to the edX Web site (http://www.edxonline.org/faqs.html), students will not earn Harvard or MIT certificates, just certificates of mastery. Moreover, Harvard and MIT students will not be allowed to take these courses and Harvard and MIT academic credit will not be granted for these courses.

The OERu and MIT–Harvard initiatives suggest that educational institutions and educators are often inclined to integrate innovations into traditional institutional structures. In other words, it is not surprising that the issue of academic credit or formal recognition of using OER has entered the landscape.

Aligning formal OER with traditional academic structures for credit is also complicated due to the concept of granularity. McGreal (2012) states:

The concept of granularity is also important. An OER can be a course, unit, lesson, image, Web page, exercise, multimedia clip, etc. but it should have a specified pedagogical purpose/context. Content instances can be assembled into a lesson. Lessons can be assembled into modules. Modules can be assembled into courses, and courses can even be assembled together and become a full programme. All of these at their various levels of granularity can be OER. (p. 2)

Non-formal use, if this is the appropriate categorical designation, suggests that OER use to complement and supplement formal academic instruction in universities will continue to be a growing use of OER. Many faculty members have integrated OER resources into their courses, created OER references for research projects, and added OER review as part of course requirements. These are tactical uses of educational resources that are valuable learning repositories for students and faculty alike.

The formal versus non-formal use of OER raises some interesting questions:

(1) Should universities organize their OER inventory (internal and external) so that students can earn formal academic credit? What structures, policies, and assessment measures will be needed to do this?
(2) Do we leave OER in the non-formal resource category and focus on using OER as open, flexible, and optional resources to support and supplement our formal higher education teaching and learning processes?

(3) Can we have this openness and flexibility without integrating formal OER into our core management and organizational structures?

OER issue 3: developing sustainable business models for OER

De Langen and Bitter-Rijkema (2012) have astutely identified one of the major limitations of OER business models—there is no sustainable revenue source. Many of the most innovative OER projects have been sustainable due to external funding by foundations, universities, and government agencies. The absence of a sustainable revenue stream creates a glaring dichotomy within the OER movement. Imagine going to your vice-chancellor with a business case that has no sustainable revenue source.

Universities in developed countries often have options for cross-resourcing OER development as part of the aggregate contribution to supporting teaching and learning across the university. This is a valid investment of resources and staff to enhance quality. As previously mentioned in this reflection, developing OER and managing and staffing OER repositories require fiscal and human resources. Access to OER may be free for users; it is not free for the organizations that create and manage OER.

The cost of developing, managing, and staffing OER is accentuated in the educational systems of developing countries where resource priorities must focus on infrastructure, faculty and support staff salaries, improving faculty student support systems, and academic program development (Kanwar et al., 2010).

From a broader perspective of access, OER are not free and this increasingly will need to be addressed in our business models and resourcing of OER development and sustainability. Proprietary producers of content recognize this limitation of OER and are biding their time. Their revenue base is through profit from the commercial uses of educational content. Indeed, this creates some complex questions.

Questions:

(1) What revenue enhancement strategies can universities employ for sustainable OER development and management?

(2) Should universities revert to an OER fee similar to the distance learning or technology fee charged to students by many universities?

(3) Does the educational value of OER justify university investment of reoccurring budget allocations to the development and management of OER? Will faculty members, department chairpersons, and senior leadership support this?

OER issue 4: mobilizing the awareness and use of OER

OER are not known by the broader educational community, even though OER advocates perceive that the whole world is aware of OER. Unfortunately, most of our global colleagues are not waiting in anticipation for the next best OER to enter cyberspace.

Today, at global open and distance learning conferences and a diverse array of educational symposia you will find many OER advocates conversing with their
recognizable colleagues. We must and do applaud organizations such as COL, UNESCO, Creative Commons, OpenLearn, OER Africa, and a range of other credible advocates and leaders for OER. These organizations have developed essential guidelines, benchmarks, frameworks, and professional development modules for OER and these must be continued (UNESCO & COL, 2011). And yet with all of this, more must be done to increase awareness and use of OER.

Despite the growing polarization of OER advocates and commercial, proprietary content providers, the fact is the proprietary sector does a better job than the educational community in promoting the value of their business and their primary resource—content. They are simply more experienced with a monopoly market for decades despite their content being closed, restrictive, and painstakingly difficult to access and use. Moreover, this content is certainly not free.

The future of the OER movement must take the high road beyond the restrictive practices of proprietary content providers and the temptation to make this an open-versus-proprietary war. The business of business is business and we need, in fairness, to recognize that the publishing industry has contributed in a variety of ways to education at all levels for decades. Moreover, some protections of intellectual property are necessary.

We must build and strengthen the OER movement by remaining focused on creating a ubiquitous global educational environment for open content, freely accessible to anyone, anytime, anywhere, and through any of the diverse computing and mobile technology tools available. A mix of commercial and open content is likely to coexist for the foreseeable future.

Questions:

1. Does the OER movement need a clearer vision for the future?
2. Does the movement need an online open access journal dedicated exclusively to OER?
3. Do universities need to expand their formal repositories of institutional case studies addressing how OER are being developed, organized, and managed?
4. What advocacy and marketing strategies are needed to expand awareness and adoption of OER in education at all levels?

From OER to OEP: the “open” road to the future?
The continuum of opportunities, issues, and challenges facing the OER movement is extensive and beyond the scope of this reflection. There are two, however, that deserve mention in conclusion.

The first is the concept of OEP. Conole and Ehlers (2010) pointed out that the focus of the OER movement has been on the actual OER, the technology, and learning object context of the OER. Conole (2010) suggested OEP “are a set of activities and support around the creation, use and repurposing of Open Educational Resources (OER).” This definition infers that the broader management, policy, and assessment of the OER educational environment will be critical to leveraging OER capacity and effectiveness in the future.

OEP expand and elevate the current OER focus by contextualizing the broader educational environment in which OER are used, revised, distributed, repackaged, and redistributed. Some of the formal OER directions in this reflection point to the
Conole and Ehlers (2010) vision of OEP. Universities may need to impose more structure to expand openness and ultimately the impact of OER. More dialogue and research about the OEP paradigm presented by Conole and Ehlers (2010) is needed across the profession.

The second issue is relevant to promoting OER among teachers at all levels. This is reminiscent of the range of distance learning issues around faculty incentives, support, release time, and the ultimate make or break issue: promotion and tenure. More succinctly, if faculty career advancement, whether in the university or public school, does not include incentives for using OER and counting this activity toward career advancement, it will be difficult to argue the case for OER. Indeed, the faculty incentive issues in concert with the “it must be created here” complex suggest that we are prudent to begin addressing these issues sooner rather than later.

Summary
The OER issues discussed in this reflection are emerging across the higher education sector. They are not definitive and are open for further dialogue. These include (1) blending OER with university management structures; (2) formal and non-formal OER; (3) the need for sustainable OER business models; and (4) expanding awareness, adoption, and use of OER. In the future, research will need to examine the concept of OEP and OER issues relevant to faculty incentives and career advancement in the university.

There is no silver bullet solution to the “open” road ahead. OER are not a panacea for resolving all the issues in a global society or in the higher education sector. In the final analysis, OER are social advocates for cultural and ethnic dialogue; they are the capacity-building tools of a child’s imagination; they are the political voices of democracy; and they may ultimately be the genuine equalizer for social inclusion in a pluralistic, multicultural, and imperfect world.

Notes on contributor
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