# Introduction: Discourses in the Development of OER Practice and Policy

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# **Overview**

In the last decade in particular, the promotion, sharing and use of open educational resources (OER) have been growing exponentially. However, as with any new phenomenon or paradigm, our knowledge of OER's ramifications and achievements to date necessarily lags behind actual developments. The concept of OER — understood simply as "educational resources … that are openly available for use by educators and students, without an accompanying need to pay royalties or license fees" (Butcher, 2011, p. 5) — has multifaceted dimensions and implications. For educational institutions, the dimensions are legal, managerial, financial, technical, technological and pedagogical; for practising educators, at stake are ways of teaching that are normative, together with a sense of identity that is both personal and professional. It would be astonishing if research, which by its very nature must be clearly focussed, were able to keep abreast of all such aspects of OER.

Our editorial stance is that OER development is best served by critical reflection offered by key players in or contributors to the OER field. This provides the rationale for the book and the selection of contributors.

It has been noted that "while OER activity is global ... the largest and best funded initiatives have mostly been in developed countries from North America and Europe" (Lane, 2010, p. 2). As a result, little is known about important questions such as how the more acute levels of resource constraint typical of developing countries impact on demand for OER and on OER "reuse". The case studies and reflections in the present book accordingly cover OER practice and policy in a diverse range of contexts, with a strong focus on events in developing countries. However, the focus on experiences from the developing world is not exclusive, as

valuable "generic lessons" applicable also to developing countries can be drawn from research in the more developed countries.

This introduction first sketches a contextual setting for the chapters that follow. With reference to the existing literature, we begin by reviewing OER developments and some of the questions that have arisen from advances made thus far. Drawing inferences from these questions, we identify some of the more important gaps in the way OER research has been conducted. We argue that failure to begin exploring these gaps carries risks that could impede further OER progress.

Second, we provide very brief descriptions of the book's chapters and vignettes. The focus is on locating these pieces within the OER landscape rather than presenting complete summaries of each. Readers curious to find out more about a particular chapter or vignette that catches their interest should refer to the relevant abstract.

In the conclusion to the book, we provide a brief reflection on key issues that emerge from the case studies.

## The Contextual OER Setting

### **OER Developments and Some of the Questions that Arise**

OER momentum has been sparked and led by individual enthusiasts, universities and other agencies, ranging from international organisations to funders, and even some governments. Prominent OER enthusiasts have a notable presence on the Internet. Vibrant OER blogs are evident, some written and maintained by individuals,<sup>1</sup> others providing useful services such as identifying and reviewing helpful resources.<sup>2</sup> One evaluation of a funded project reports that individual commitment to OER sometimes borders on the "evangelical" (Harley, 2011, p. 10).

Perhaps the most striking example of individual "conversion" is that which occurred when one of the Massachusetts Institute of Technology's (MIT) institutional heads came to a revolutionary conclusion whilst taking a shower: "Well, if we're not going to try to make money from our educational material, maybe we should just give it away" (Attwood, 2009). At the institutional level, however, personal conviction has to be translated into policy and practice. In the case of MIT, it has. MIT's OpenCourseWare (OCW) site,<sup>3</sup> which makes course materials such as syllabi, tests and lecture videos from over 2,000 MIT classes available free online, is reportedly one of the most popular search sites of its kind. Indeed, the institution itself now operates differently. MIT students expect their courseware to be available online, and a sizeable proportion of MIT alumni frequent the OCW website for ongoing professional development. The next logical step was announced recently:

for the first time it [MIT] will offer credentials — under the name "MITx" — to students who complete the online version of certain courses, starting with a pilot program this spring.... University officials described "MITx" as a non-profit entity established inside the university that will offer an "MIT-sanctioned certificate" for completing various courses or, perhaps eventually, whole course sequences ... (Pope, 2011) Research into the effects of OER initiatives in the United Kingdom's Open University (UKOU) highlights various benefits, which include improved visibility and profile for the university, bringing enhanced relationships with major strategic partners in the UK. There is also evidence of new students being attracted to the university (Gourley & Lane, 2009).

OER developments and positive outcomes at both MIT and UKOU place them amongst the examples of institutions that have found ways of sustaining OER activity after their initial funding base was reduced. It is not hard to find other examples of funded projects that have achieved notable success. Rice University's open courseware initiative, like that of MIT, was funded by grants from The William and Flora Hewlett Foundation, as were many other OER initiatives around the world.<sup>4</sup> Rice's non-profit publisher, OpenStax College, is an example of an initiative that has attracted multiple funders: The William and Flora Hewlett Foundation, the Bill & Melinda Gates Foundation, the Twenty Million Minds Foundation, and the Maxfield Foundation. This initiative

will offer free course materials for five common introductory classes. The textbooks are open to classes anywhere and organizers believe the programs could save students \$90 million in the next five years if the books capture 10 percent of the national market. (Smith, 2012)

The Bill & Melinda Gates Foundation is prominent in funding OER projects in agriculture, amongst other focus areas.<sup>5</sup> The Shuttleworth Foundation has funded research on copyright, as well as the meeting that in 2008 drafted the "Cape Town Open Education Declaration", urging governments and publishers to make publicly funded educational materials available at no charge via the Internet.<sup>6</sup> More recently, the Shuttleworth-funded Siyavula project<sup>7</sup> has produced open textbooks in key subject areas for the South African curriculum, which the national Department of Education has made available to all Grade 10–12 learners enrolled in Physical Science and Mathematics.

Clarity regarding the nature and scope of OER has been provided mainly by two international organisations that have consistently championed OER: the Commonwealth of Learning (COL) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). The former has made OER an important component in all aspects of its work, emphasising the delivery of products, mainly in the form of materials. Since the term "open educational resources" was first adopted at UNESCO's 2002 Forum on the Impact of Open Courseware for Higher Education in Developing Countries, UNESCO has taken a leadership role in making countries aware of the potential of OER.

Ongoing co-operation between COL and UNESCO has been responsive to needs expressed by the higher education sector:

At the 2009 World Conference on Higher Education: The New Dynamics of Higher Education and Research For Societal Change and Development (UNESCO, Paris, 5–8 July 2009), it was communicated that ODL [open and distance learning] approaches and ICTs [information and communication technologies] present opportunities to widen access to quality education, particularly when Open Educational Resources are readily shared by many countries and higher education institutions (Communiqué, 8 July 2009). (UNESCO & COL, n.d.) Two recent COL/UNESCO publications bring further coherence to our understanding of OER. The *Guidelines for Open Educational Resources (OER) in Higher Education* (COL & UNESCO, 20) provides an overview of key issues for integrating OER into higher education. Key stakeholders are addressed: governments, higher education providers, academics, students and accreditation/regulatory bodies. Because of the widely consultative nature of their compilation, these guidelines have credibility and plausibility. *A Basic Guide to Open Educational Resources (OER)* (Butcher, 2011) distinguishes the essence of OER from confusions with eLearning, distance education, open education and resource-based learning/teaching. This guide addresses questions frequently raised about creating, finding, using and adapting OER.

Developments suggest that OER comes with a compelling logic. There is a plethora of work on the history and promise of OER in relation to enhanced learning experiences for greater numbers of students at reduced cost. In its "Report Prepared for the UNESCO 2009 World Conference on Higher Education", UNESCO notes the inexorable logic of "massification" in the sector (Altbach, Reisberg, & Rumbley, 2009). This logic is driven, on the one hand, by greater demand for access to higher education, and on the other, by demand for human capital and skills on the part of modern economies. Implicit within this logic is the need for enhanced quality in teaching and learning.

In Sub-Saharan Africa, a region with the lowest tertiary gross enrolment ratio in the world (five per cent) (Altbach et al., 2009, p. 38), the notion of freely available, high-quality resources to serve teaching and learning in resourcescarce contexts has an obvious resonance. Indeed, much of the OER impulse is instrumental, aimed specifically at overcoming deficits. For example, a report to The William and Flora Hewlett Foundation, entitled *A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities*, declares that

> the plan is intended to be a strategic international development initiative to expand people's substantive freedoms through the removal of "unfreedoms": poverty, limited economic opportunity, inadequate education and access to knowledge, deficient health care, and oppression. (Atkins, Brown, & Hammond, 2007, p. 1)

At the same time, the instrumental/deficit impulse for OER is intersected by powerful political and social imperatives for equity and social justice. Such imperatives find expression in views such as the following:

Free and Open Educational Resources at the University of the Western Cape (UWC) are deeply rooted in our institutional culture, stemming from the role we played in the struggle for political freedom in South Africa.... The focus at the UWC is on the benefits of freedom that include social justice, rather than solely on the utility benefits, hence the continued use of the term *Freedom* within the conceptualisation and the choice of licences consistent with that concept. (Keats, 2009, p. 47)

As with the urge to achieve instrumental objectives, whether liberatory aims are actually translated into successful educational outcomes remains an open question of the kind to which the present collection of case studies seeks to respond. The point being made here is that the instrumental logic of OER is undoubtedly infused with a powerful moral authority.

OER may also bring differential benefits in relation to particular "modes of delivery" (which may or may not correspond to institutional type). For example,

providers wishing to use eLearning now have available a rapidly growing body of open educational resources: freely available learning materials that can be adapted to particular local needs. This is a crucial development. The combination of expanding connectivity and the swelling reservoir of open educational resources is potentially revolutionary, not least because it may allow institutions to achieve low per-student costs without having to achieve huge volumes. Course development costs are a major item for quality distance education. Open educational resources allow the widespread adaptation and use of good learning material. (Daniel, Kanwar, & Uvalić-Trumbić, 2007)

Even from our brief overview it is evident that OER progress has been remarkable. The main challenge is one of sustaining and extending the OER platform that has been built. OER has been depicted as a "disruptive innovation" that has secured a number of "early adopters" (Stacey, 2010). It is possible that the early adopters of OER enjoy a profile that brings funding opportunities and an appeal to potential students in a way that may not similarly accrue to institutions not at the vanguard of the movement. Jan Hylén's state-of-the-field review in 2006 concluded with questions such as, Who is using OER and for what purpose? "A lot of fundamental questions still remains [sic] to be answered" (Hylén, 2006, n.p.). In recent years, some of these questions have been addressed, and some of the chapters that follow are testimony to these developments.

In the next section, we cluster many of the significant questions that could be asked about OER under the umbrella of teaching and learning "practice", and we find evidence to suggest that the orientation of OER research tends to be somewhat uncritical.

# Significant Questions About OER — and Approaches to Answering Them

The most significant gap in the literature is that many of the important questions concerning actual OER *practice* remain unanswered. For example, at the present stage of OER "take-up", "we are watching OER move from being an end i[n] itself to becoming a means to an end" (Vollmer, 2010). Yet significant questions about ends being achieved remain unresolved. A wealth of literature — and educational theory — testifies to the effectiveness of well-developed resources and materials in supporting the more traditional modes of contact teaching, with its predominance of "teacher talk". With OER, however, the fundamental issue of effective resource-based teaching and learning leads to nuanced questions, such as:

- Can learning resources designed for specific students in particular contexts be as successful in other contexts?
- Will "reusers" of OER exploit the advantages of open licensing and adapt high-quality resources to their own teaching situations?

- What are the conditions under which adaptations and improvement might occur?
- How will increasingly widespread student access to online open content (i.e., that is not officially part of course designs) affect the dynamics of the teaching and learning process?

Such questions about OER practice are also found in Asha Kanwar's<sup>8</sup> reflections on learning from OER experiences. She argues that there is too much focus on technology and OER products, and too little on stakeholders and processes: "Most of the available literature on OER focuses on production. How do we move to the next level and promote actual use and re-use? How will this help us achieve development outcomes?" (Kanwar, 2011). In an analysis of publicly and foundation-funded OER initiatives worldwide, Ulf-Daniel Ehlers concurs: "[T]he focus of current, well-known OER initiatives is on the creation and publication of OERs. Use and reuse are still somewhat underrepresented" (Ehlers, 2011, referencing Paul Stacey). If there is indeed some validity in the view that there is hesitancy on the part of academics to adapt or reuse others' content (Anderson, 2009), we do not know either the extent of this hesitancy or how to account for it. A number of complementary possibilities seem plausible: since OER development is well reported, the gaze of the literature may not yet have settled on OER reuse; or because of unawareness of copyright laws and the opportunities afforded by open licensing, much reuse might even be taking place discreetly, "below the radar", so to speak; or as an academic community we might be so swamped with information that we take little note of potentially useful resources.

A different kind of obstacle might jeopardise not only OER use and reuse but also original design and creation. Academics function in institutional policy environments that are in turn informed by national higher education policies. Policies, as objective and external facts, surround academic activity. They shape expectations and reward academics to the extent that the academics stay within their assigned performances. By tradition, it is publication of peer-reviewed research that leads to reward and social esteem. As an enabling or deterrent force in matters of OER creation and adaptation — as well as better teaching — policy is critical to the development of the kinds of practices about which, it has been argued, we need to know more. This accounts for the policy focus of chapters 13–15 in this book.

A bigger problem than absence of research into significant aspects of OER is simple lack of the kind of critical, evidence-led insights on which higher education places so much emphasis. Lack of critical perspective emerges strongly in a recent survey of academic OER publications in Africa (Papachristou & Samoff, 2012):

- Many articles cover OER within a particular institution "without examining the wider trend or broader challenges of implementation" (p. 1).
- Throughout the literature, there are "enthusiastic endorsements of open educational resources, often with little or no attention to the practical issues and problems that arise from actual use" [although lack of Internet access emerges as a frequently identified barrier] (p. 2).
- Critique of OER initiatives and implementation is infrequent, as is "a critical perspective on the role and utility of open educational resources" (p. 2).

• "To date, the major education journals have published very few articles directly concerned with open educational resources" (p. 2). This might be because of the "strong and seemingly unleavened optimism of the research. Hardly any of the articles identified major obstacles and problems, or noted stillborn or unsustained initiatives, or reported significant frustrations or failures" (p. 3).

Lack of critical perspective is perhaps unsurprising when the concept of OER presents itself as such a self-evident social "good". The situation is similar to the erstwhile uncritical acceptance of schooling as an unquestionable social "good" that could unproblematically resolve social ills like poverty and inequality — until the radical de-schooling movement emerged in the 1970s.<sup>9</sup> At present, there is little sign of an even moderate intellectual "de-OER" movement. Perhaps this is because OER has no clear "disciplinary" home, and it is from such a base that the most informed critiques normally originate. It is true that in some countries, publishers have mounted legal actions to curtail free and open accessibility to educational resources. However, one suspects that oppositional measures of this kind are impelled by vested commercial interests rather than by disinterested academic enquiry. Indeed, the fears of publishers might be testimony to the vast potential of OER rather than a reflection of serious questions about its efficacy.

In looking to the future, Lane and McAndrew argue: "In the end, success is more likely to happen through experimentation on the ground by learners and teacher practitioners than by the efforts of educational researchers or technologists" (Lane & McAndrew, 2010, p. 959). Whilst agreeing with this judgement, we hope that the present collection of grounded reflections on OER practices and OER policy development, provided by OER practitioners themselves, offers the promise of insights and inferences that will usefully inform future OER debate and development.<sup>10</sup>

### The Risk of Not Knowing More About OER

Randall Collins opens his history of intellectual change by stating: "Intellectual life is first of all conflict and disagreement" (Collins, 2000, p. 1). Harmonising OER production with research has the potential to sharpen quality by infusing critical reflection into the OER field, which, because of its ready ideological appeal, might be susceptible to lapsing into a "feel-good" lack of criticality.

In other words, the OER movement is vulnerable to the consequences of meliorism. Representing the belief that the world tends to become better and that humans can aid its betterment, meliorism has obvious if perhaps optimistic appeal. And it certainly has resonance with OER. However, the problem with meliorism is that it assumes a particular intensity at times of social dislocation and crisis. Such a time was the early years of the Great Depression in the USA, for example, when economic collapse, mass unemployment and concerns about social injustice led to a powerful movement that sought to redirect the curriculum towards "correcting social and economic ills" (Kliebard, 1987, p. 198). The problem with such admirable social intentions, and what made them "meliorist", was their very intensity. With policy focusing so strongly on the desired effects of curriculum proposals, the realities constraining curriculum implementation were simply overlooked. The reconstructionist curriculum project in the USA

floundered because there were "just too many speeches on the subject and not enough grassroots efforts to work with the teachers themselves" (Kliebard, 1987, p. 199):

In the curriculum field ... the urge to do good is so immediate, so direct and so overwhelming that there has been virtually no toleration of the kind of long-range research that has little immediate value to practitioners in the field, but which may in the long run contribute significantly to our basic knowledge and understanding. (Kliebard, 1975; cited in Goodson, 1995, p. 65)

There is clearly some risk attached to dispatching higher education on a melioristic OER voyage of faith that is uninformed by reflective experience. Broadly speaking, the chapters assembled in this book are predominantly "success stories", but they also begin to highlight the kinds of challenges and difficulties that will face OER development in contexts where "[t]he academic profession is under stress as never before" and "higher education has become a competitive enterprise" (Altbach et al., 2009, p. iv and xv).

### An Overview of the Chapters

The book begins with van Wyk's description of the UNESCO and COL initiative Taking OER Beyond the OER Community: Policy and Capacity. This is important in the context of strategies to move OER projects and initiatives from their present marginalised, donor-driven impetus to more enabling and sustainable environments supported by institutions and governments. The next two chapters provide important overviews of the state of the OER field in two important regions generally not well covered in the literature. Both introduce concepts relevant to all OER in all settings: the "massification" challenge facing higher education, together with quality concerns, and the importance of local context and culture. In Chapter 2, Badarch, Knyazeva and Lane assess OER progress in the diverse, multi-ethnic and multilingual societies of the non-English-speaking CIS and Baltic States. Here, OER is found to be at "an early stage of maturity". In Chapter 3, Harishankar's analysis of pedagogy and technology in three very different initiatives in India suggests that the OER that have been developed have features that provide an enabling basis for reuse.

The next three chapters provide empirically based case studies of funded OER projects in Africa. In Chapter 4, Omollo, Rahman and Yebuah trace the development of OER for the health sciences, and OER and policy "from scratch" — and in tandem — at the Kwame Nkrumah University of Science and Technology and the University of Ghana. Sapire, Reed and Welch's coverage of the development and take-up of a full six-unit module to improve the teaching of mathematics in South Africa follows in Chapter 5; OER cost-effectiveness is more often claimed than demonstrated, but the authors provide evidence of high-quality, cost-effective OER, and of OER take-up. On an even larger scale, Wolfenden, in Chapter 6, covers OER development in the core subjects for teacher education across 13 institutions in nine Sub-Saharan countries. OER design principles — and in particular a highly structured template for OER creation — specifically allowed for adaptation and take-up across a range of contexts and cultures.

This book interleaves a number of vignettes to capture more personal individual accounts of OER experiences. After Chapter 6, Ngugi's evocative snapshot of a single day in a Kiswahili language class shows how exposure to the Teacher Education in Sub-Saharan Africa project (TESSA, described in Chapter 6) generated more than localisation and adaptation of existing materials. New learning materials, jointly created by teacher and students, provided evidence of ingenuity and creativity seldom found in school classrooms.

After this vignette, the theme of OER take-up is then further developed in Chapter 7. Conole's outline of how OER might be more effectively integrated into formal and informal learning contexts is illustrated by use of the Open Educational Quality Initiative (OPAL) framework. The chapter analyses OPAL's methodology and reflects on how its guidelines may be used to promote open education practices (OEP) across the entire OER community, from policy makers, managers and administrators to educational professionals and learners.

Levey's lively Chapter 8 moves directly into the legal issues and practical methods of searching for OER. There is little in the literature about these matters, yet they encompass essential processes for OER take-up and reuse to move to the next step of realisation. In addition to learning more about the abundance of resources that have contextual relevance to the developing world, and Africa in particular, we are introduced to the promise — and challenges — of searching for OER.

Chapter 9 reminds us of what the literature tends to under-represent: the role of the student. In arguing that resources mediate teacher–student relationships, Lane shows why we need to broaden our concept of the term "student" to include past students and even "non-students" who may access OER. The theme of changing social relationships provides a useful connection with the theme of pedagogy that is developed in the next two chapters.

In Chapter 10, Kanuka and Gauthier argue that learning and teaching in higher education depends on more than just teachers with content knowledge. Essential to OER take-up is the way that the distinctive forms of disciplinary content knowledge and pedagogical content knowledge (PCK) intersect with diverse cultural settings. They show the promise of a "teacher enhancement series" built on the theoretical PCK basis they develop.

At this point, Lesperance's vignette describes how in the Virtual University for Small States of the Commonwealth, the manner in which OER were developed and the parallel development of a Transnational Qualifications Framework facilitated the use and reuse of resources. Collaborative materials development can support programme equivalence and student mobility across national boundaries.

In Chapter 11, from an Asian setting, Phillips's account of OER take-up in teacher education programmes provides an authentic illustration of the importance of course designers addressing curriculum and pedagogy in OER. Integration of OER into existing programmes requires adaptation that is sensitive to particular sets of students. The age and working situations of students were major considerations in this case.

This chapter is followed by two personal accounts of moving into resource-based teaching and OER. Rybicki describes his individual "OER" pioneering, a decade before the term OER was officially coined by UNESCO. Myers's equally personal "life in the real world" account shows how OER may flower or flounder within the

same institution. Despite some positive effects, his attempt to develop all eight modules for public health students from farther afield encountered obstacles in the form of staff workload and lack of alignment with a rigid national regulatory framework.

Mawoyo and Butcher's contribution in Chapter 12 forms a bridge from the backdrop of OER practice to the realm of OER policy. With its focus on the supply side of the OER chain, the authors present a variety of case studies from different parts of the world, in a useful overview and analysis of the differing ways in which institutions and individuals have approached the task of releasing existing materials under open licenses.

In Chapter 13, Hoosen and Butcher continue the theme of enabling policy environments. However, here we encounter on-the-ground developments across a range of actual cases. Although a picture emerges of no standard sequential development, most institutions appear to have addressed policy as a reactive measure. Institutions also appear to be lagging behind national governments in matters of policy development.

We then have two striking instances of national OER policy development. In Chapter 14, Rossini traces messages and developments moving Brazil towards acceptance of the principle that publicly funded educational resources should be OER. On a world map, New Zealand looks far removed from the kinds of broader debates fuelling OER policy in Brazil. However, Mackintosh's Chapter 15 case study of the Otago Polytechnic, within a case study of New Zealand, shows how a particular national cultural outlook — very different from that identified in Chapter 2 — leads to a kind of organic OER growth with its own momentum in both policy and practice.

### Notes

- 1. E.g., David Wiley at http://opencontent.org/blog and http://opencontent.org/blog/archives/2127.
- 2. E.g., Tony Bates at www.tonybates.ca.
- 3. See http://ocw.mit.edu.
- 4. See www.hewlett.org/programs/education-program/open-educational-resources.
- 5. See www.gatesfoundation.org/Pages/home.aspx.
- 6. See www.capetowndeclaration.org.
- 7. See www.shuttleworthfoundation.org/projects/siyavula.
- 8. Professor Kanwar is Vice President of the Commonwealth of Learning.
- 9. Represented most notably by Illich (1971).
- 10. For the merits of such an approach, see Bhola (2002).

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