OER based capacity building to overcome staff equity and access issues in higher education

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Open educational resources (OER) have already impacted educational systems around the world. In higher education more specifically, it has benefited learners, and has influenced institutional strategic plans and policies. Additionally, the benefits of OER also extend to staff in higher education, such as academic staff. For this group, OER can provide opportunities for collaboration, promote curriculum innovation and student led content development, as well as contribute to university teachers' much needed continuing professional development. In this paper, we examine the potential of OER to build capacity of academic staff in higher education, in particular to overcome some equity and access issues that they may face. It also examines some existing activities and strategies for professional development in higher educational institutions and provides some recommendations for academics, academic developers, institutions, and the sector in general.

Introduction

Open Educational Resources (OER) is a recent phenomenon in higher education, but has already benefited many universities around the globe, providing learners with the opportunity to learn through freely available materials. Some institutions have also enhanced their reputations, increased student enrolment and developed innovative ways to produce learning materials (Wiley & Gurrell, 2009). For clarity, OER are defined here as:

> educational materials which are licensed in ways that provide permissions for individuals and institutions to reuse, adapt and modify the materials for their own use. OER can, and do include full courses, textbooks, streaming videos, exams, software, and any other materials or techniques supporting learning (OER Foundation, 2011).

The fast growth of OER "is a response to the rising costs of education, the desire for accessing learning in areas where such access is difficult, and an expression of student choice about when and how to learn" (Johnson, Levine, Smith, & Stone, 2010, p. 6). Following the example set by the developed countries where substantial increases in participation rates are considered essential for sustained development, managing an identified burgeoning worldwide demand for higher education in the developing world poses an enormous challenge which needs to be undertaken rapidly and with reasonable quality (Daniel, Kanwar, & Uvalic-Trumbic, 2009). Despite

the fact that the philosophy underpinning OER is noble – being used to increase access to education, improve quality, reduce costs of education, and to promote collaboration among learners, teachers and institutions – most OER are developed in English, by educational institutions from developed nations, and consequently benefiting western learners and teachers the most (Willems & Bossu, 2012). However, it is important to note that developed nations can also experience various equity and access issues in OER.

In the field of higher education, while the focus of OER in this sector has been on enhancing student access and learning, academic staff in particular, are in need of further and targeted learning opportunities for their professional development and capacity building, including learning, teaching and research. In Australia for example, where higher education plays an important role in the economy, with revenues exceeding AU$ 27 billion in 2013 (Norton & Cherastidtham, 2014), funding to support professional development of academic staff has reduced in recent years. This reduction in funds could impact directly and indirectly on institutional support for professional learning programs for academic staff, including casual and contract-based academics (Marginson, 2013). This trend suggests that individual academics will increasingly need to manage their own careers and professional learning, including evidencing their performance against specified metrics and frameworks (Gibbs, 2013). This condition points to a greater need for, and reliance upon, open learning and

relevant OER for professional development in different higher education contexts (Bossu & Fountain, 2015).

This paper examines the potential of OER to build capacity of academic staff in higher education, in particular to overcome some equity and access issues. It will also examines existing activities and strategies for professional development and provide some recommendations for the academics, academic developers, institutions, and the higher education sector in general.

Beyond the students – staff equity issues in higher education

In higher education, equity issues faced by academic staff in general can range from Indigenous representation and gender disparities through to full participation in academia. A case in point is the sessional teaching workforce. These staff are often the backbone of higher education teaching practices. In Australia, the higher education sector is the third largest employer of a casualised workforce (Ryan et al., 2013). Yet in spite of their contributions to the sector, sessional staff are often excluded from processes that would enhance their teaching, such as professional learning and development opportunities (Savage & Pollard, 2016). A key issue is that contract and/or part-time staff (such as the sessional academic) are paid piecework according to their planned workload. For these academics, participation in professional development may need to be undertaken in their personal (unfunded) time and/or adds to their time pressures in the work environment.

Overlaying these realities, for academic staff in general, equity issues in terms of their capacity to undertake their roles are broad, and their needs can easily fade into the background. Willems (2015) identified potential digital equity issues for academic staff in higher education. These include technological access, diversity of technology itself, hardware and software, diversity in knowledge and skills, disability, geographical dispersion, and so on. Skilling staff in the rapid changes in the landscape of digital technology is a case in point and it is a social justice issue to pursue for staff who are underempowered (or disempowered) to gain the requisite knowledge and skills (Marullo & Edwards, 2000).

Bandura (1989) suggests that through personal agency, solutions can be found to change what one can. The social justice goal for those who are digitally underempowered, or even disempowered, is to facilitate empowerment. Through personal agency, there are things that staff can do to change their situation both reactively and proactively to empower themselves and others in spite of the factors external to one's control or influence. One solution for an academic staff-led approach to address such issues and empower others is through capacity

building by robust professional development so that marginalized academics can participate in the workplace fully and equitably. OER may be the means by which this can be accomplished.

The role of capacity building to support equity in higher education

Capacity building for university teachers is not a new concept or activity in higher education. Such processes have been used by universities and other educational and non-educational organisations for decades to prepare and train staff to adopt new procedures, new technologies, new policies and so forth (Brew & Cahir, 2014). Capacity building can be key to raising understanding and awareness and empowering educators to make informed decisions about enhancing learning and teaching within their contexts. It is important to understand that transformation and change, particularly within the higher education landscape, can occur very slowly and can attract many sceptics. Academic staff professional development and capacity-building are important and influential instruments to empower academic staff to embrace and participate in change (Healey, Bradford, Roberts, & Knight, 2013).

However, as mentioned above, significant changes in government funding coupled with pressures and changes in the work and careers of academics have impacted on their practice and the way they perceive professional development. Their workloads have increased dramatically leaving very little time for building their own capacity themselves (Brew & Cahir, 2014). The higher education sector in Australia is also under a lot of pressure, as universities have to comply with government quality standards and frameworks, compete with each other for students, as well as an ever decreasing government funding. Universities are aware that they must provide their staff with opportunities for building capacity in areas that they need most, but the challenge for them is how to provide equal professional development opportunities at a low or no additional cost to them or to their staff. Added to this issue of access is a related issue of scalability of programs (Cochrane & Narayan, 2016).

One solution for this question is to access existing or develop new OER based fit-for purpose capacity building programs for academics. It is also important to build capacity in OER, so that they understand and take full advantage of the opportunities of such open content. These programs can be offered using a diverse range of formats and tend to be freely available for use, re-use adaptation and distribution. Some of them offer the opportunity for micro-learning, defined by Hug (2006) as teaching and learning delivered to a learner in small chunks and/or in very short bursts.

Universities and staff can access these resources and turn into a development opportunity that would fit the need of a particular group of academics, for example. The next section will explore opportunities of existing capacity building practices and theories for university teachers. An additional overlay is to provide programs that can quickly respond to staff need, in manageable pieces.

Existing opportunities to build capacity through OER

As discussed, OER has the potential to provide equitable professional development opportunities to academic staff in higher education. Examples of free and open short courses, programs and resources that target university teachers and their needs can be found spread across the Internet. These include inter-governmental organisations such as the Commonwealth of Learning (COL) (https://www.col.org/news/news/col-releases-oer-course), professional associations such as the Joint Information Systems Committee (JISC) (https://openeducationalresources.pbworks.com/w/page/24836480/Home), specific research groups such as the OER Hub (http://oerhub.net/), and universities' websites (http://www.teaching-learning.utas.edu.au/content-and-resources/open-educational-resources), to name a few. Another important development in this space is the OER Universitas (OERu), which is a consortium of like-minded tertiary institutions and organisations around the world working in collaboration to provide free and open short courses through a diverse range of pathways to learners worldwide, including university teachers (McGreal, Mackintosh & Taylor, 2013). In the OERu website (https://oeru.org/courses/), learners can find a whole range of full and short-courses that are for formal credit or not. As OER are still a novelty in curriculum innovation in learning and teaching, free professional development opportunities have been developed to build capacity specifically in OER such as these two short courses: Learning to (Re)Use Open Educational Resources (http://www.open.edu/openlearncreate/course/view.php?id=2500) and Curriculum design for open education (CD4OE) (http://wikieducator.org/course/Curriculum_design_for_open_education/).

In addition, there is a substantial amount of free and openly licensed educational resources that could be used by academics developers and academics to support their own, and their students', learning. Example of these resources are openly licensed videos (https://vimeo.com/creativecommons), photographs (https://pixabay.com/), open textbooks (http://open.umn.edu/opentextbooks/), open source Learning Management Systems (http://blog.capterra.com/top-8-freeopen-source-lmss/), full courses (https://www.saylor.org/), video lectures (http://oyc.yale.edu/), repositories of academic and government publications (https://oerknowledgecloud.org/), Open Access Journals (https://doaj.org/), and much more.

OER developments have also occurred in the theoretical front, as scholars, researchers and practitioners continue finding ways to maximise the potential of OER to build capacity and improve learning and teaching in higher education. One example is the *Open Empowered Learning Pedagogy* (Smyth, Bossu, & Stagg, 2016) framework, which focused on developing further understanding in and around adopting OER within learning and teaching. This framework is an adaptation of Smyth's (2011) previous work, which explored learner-centred pedagogies and the possible interactions between learners and their peers, the teacher, the content and technology. This adapted model supports academics as participating actors in the learning and teaching process and adds other dimensions that are only possible through openly licensed content, including student co-creation of resources (Smyth et al., 2016). The model consists of five principles. These are:

1. Control rests with learners who navigate their own journey through content to achieve desired learning outcomes using both informal and formal pathways, which include recognition of prior learning and credit transfer.
2. Open, re-useable content is the preferred source of information for shared, co-creation [content created in collaboration with other academics and students] of knowledge, which also values informal learning.
3. Learners are supported to be increasingly autonomous and to develop critical social consciousness in an open ecosystems.
4. Teachers facilitate discovery, co-creation and learning engagement for transformation through open pedagogy where they become less visible as learning progresses.
5. [Open practices that] support social transformation, sharing and co-creation of knowledge in fully open ecosystems, where benefit for social good is expected (Smyth et al., 2016, p. 211).

This model has the potential to support and underpin the development and design of a diverse range of OER based capacity building programs to meet the needs of current academics and therefore support equity and access to professional development to university teachers not only in Australia, but globally.

Conclusion and final considerations

As discussed before, open educational resources (OER) are recognised globally by the benefits they can bring to a diverse range of stakeholders in formal and informal education, particularly to those who need the most by closing the equity and access gap in education. However, there is still much work to be done as the large majority

of OER are available in English and are heavily western centric (Willems & Bossu, 2012). It was also mentioned here that equity and access issues in higher education go beyond student, reaching academics, including contract and sessional ones, and their needs to access professional development that would assist them to meet their career needs, as well as to improve their learning and teaching practices. Capacity building through staff professional development has been a well-regarded strategy to promote and support change in education through knowledge building, empowerment and support for educators.

One of the alternatives is to provide flexible and cost effective capacity building opportunities to staff is by taking advantage of the full potential of free and openly license educational resources such as OER to provide academics staff with adequate professional development opportunities. However, develop OER course and resources alone is not the answer to this problem. OER are mostly digital resources and are stored in many different websites and repositories globally. Therefore, build digital literacy skills in the current academic workforce is a key to increase access to OER.

In addition, professional development activities should also meet the needs of minority groups within academia, such as indigenous and sessional academics, through flexible programs and mentoring opportunities. Importantly, professional development programs should promote personal reflection on learning, support the creation of communities of learning within universities and encourage transformational change, so that academics are empowered to continue their lifelong learning journeys with the assistance of OER or not. Continue professional development is the key to unlock good practice in higher education. It also provides alternative lenses, so that educators see learning strategies and opportunities differently, including opportunity for collaborating with colleagues within their own institution and beyond, creating efficiency in content development, enhance existing pedagogical approaches or create new ones.

In this paper we have argued that the development of OER for academic staff professional development must be driven from a consideration of educational equity. It must be for the people who need it the most. As Olcott (2013, p. 15) notes, "the future of open education is at a crossroads that must be driven by those core values that define education as an essential human right with a commitment to expanding access and strengthening academic quality".

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