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Conceptualising OEP: A review of theoretical and empirical literature in Open Educational Practices

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Abstract

Conceptualisations of open educational practices (OEP) vary widely, ranging from those centred primarily on the creation and use of open educational resources (OER) to broader definitions of OEP, inclusive of but not necessarily focused on OER. The latter, referred to in this paper as *expansive definitions of OEP*, encompass open content but also allow for multiple entry points to, and avenues of, openness. This paper explores the theoretical and empirical literature to outline how the concept of OEP has evolved historically. The paper aims to provide a useful synthesis of OEP literature for education researchers and practitioners.

Keywords: open education; open educational practices; OER; OEP; OEP theory

Introduction

Open education is defined broadly as encompassing resources, tools and practices to improve educational access, effectiveness, and equality worldwide (Lane, 2009; Open Education Consortium, n.d.). An abiding theme throughout the history of open education, however, has been the difficulty in precisely defining the concept. Even at its earliest stages, the definition was difficult to pin down. In reviews of the literature in the 1970s, open education was defined as "flexibility of space, student choice of activity, richness of learning materials, integration of curriculum areas, and more individual or small-group than large group instruction" (Horwitz, 1979, pp. 72-73), as well as conceiving of "the teacher as facilitator of learning [and] the development of student responsibility for learning" (Marshall, 1981, p. 183). The mission of The Open University (UK), founded in 1969, was (and still remains) to be open to people, places, methods and ideas (MacKenzie, Postgate & Scupham, 1975; The Open University, 2018). From learning objects in the 1990s to MOOCs (massive open online courses) in the 2010s, definitions of various forms of open education have been diverse and often contested. The exception is open educational resources (OER), the definition of which has remained nearly constant since it was coined in 2002: "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).

An observation by Noddings and Enright in 1983 could just as easily be made today:

> Part of the problem of definition stems from the careless, if evocative, use of the term *open* by educators and the popular press to describe the wide variety of educational innovations which proliferated at the same time as open education classrooms were being developed (Noddings & Enright, 1983, p. 183).

'Open education' often carries the weight of describing not just policy, practices, resources, curricula and pedagogy, but also the values inherent within these, as well as relationships between teachers and learners. So is open education a slogan or a philosophy, a metaphor, model, or movement?

Noddings and Enright (1983) explored precisely this point, asserting the need to "resist the evangelical mode" in favour of the historical and critical. This paper takes a historical and critical approach in exploring conceptualisations of open educational practices (OEP).

While open education has a long history (Hendricks, 2017; Morgan, 2016; Rolfe, 2017), the specific concept of 'open educational practices' has emerged only in the past decade (since 2007). Conceptualisations of OEP vary widely, ranging from those centred on the creation and use of OER to broader definitions of OEP, inclusive of but not necessarily focused on OER. These *expansive definitions of OEP* encompass open content but also allow for multiple entry points to, and avenues of, openness. The Cape Town Open Education Declaration (2007) points to an expansive approach:

> ... open education is not limited to just open educational resources. 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.

Several open education researchers have highlighted the range of conceptualisations of OEP in locating their own work (see Czerniewicz, Deacon, Glover & Walji, 2017a; Havemann, 2016; Masterman, 2016; Paskevicius, 2017; Stagg, 2014). The purpose of this paper is to trace a path through the theoretical literature on open educational practices to explore how the definition has evolved and how these roots appear in current empirical studies of OEP. In our review of the OEP literature, and recognising that there is some overlap, we have classified theoretical literature as that which conceptualises unique definitions of OEP, and empirical literature as that which gathers and analyses data in order to understand the development and use of OEP in specific contexts. The paper reviews the theoretical and empirical literature on OEP, discusses key themes and assumptions emerging from this review, and suggests areas for further research.

Evolving definitions of OEP

Within the OEP literature, there are a number of key bodies of work (associated with specific projects) that have clearly influenced the development of the field. In our analysis, one or more of the following bodies of work were cited in all subsequent academic literature in the area of OEP:

i.   OLCOS (Open eLearning Content Observatory Services) project (2006-2007)
ii. OPAL (Open Education Quality) initiative (2010-2011)
iii. UKOER programme (2009-2012)
iv. CILT (Centre for Innovation in Learning and Teaching) research, UCT (2009-present)

i) OLCOS project

The earliest definition and exploration of open educational practices (OEP) in the research literature emerged as part of the OLCOS (Open eLearning Content Observatory Services) project (2006-2007). OLCOS was a Transversal Action undertaken as part of the European Commission's *e*Learning programme[1] (Geser, 2007a, 2007b; Schaffert & Geser, 2008). The project partners were based in six educational/research institutions in five countries[2]. The aim of the OLCOS project was to foster the

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[1] https://ec.europa.eu/education/sites/education/files/socrates-leonardo-elearning-evaluation-2008-elearning_en.pdf

[2] The OLCOS project partners were Salzburg Research (Austria), Mediamaisteri Group (Finland), European Centre for Media Competence (Germany), FernUniversitaet (Germany), European Distance and E-Learning Network (Hungary), and Open University of Catalonia (Spain) (Geser, 2007a).

creation, sharing and re-use of OER in Europe and beyond. In the final project report, however, the project recommended moving beyond focusing on OER alone (Geser, 2007a):

> The OLCOS project has explored how OER can make a difference in teaching and learning. Our initial findings show that OER do play an important role in teaching and learning, but that it is crucial to also promote innovation and change in educational practices. The resources we are talking about are seen only as a means to an end, and are utilised to help people acquire the competences, knowledge and skills needed to participate successfully within the political, economic, social and cultural realms of society (p. 16).

The OLCOS project methodology included a detailed literature review, workshops, and interviews with experts. The final report had a five-year time-horizon and thus was titled *Open Educational Practices and Resources: OLCOS Roadmap 2012* (Geser, 2007a). OEP were defined as: "… practices that involve students in active, constructive engagement with content, tools and services in the learning process, and promote learners' self-management, creativity and working in teams" (Geser, 2007a, p. 37).

The report also identified enablers and inhibitors of OER and OEP and provided tailored recommendations for policy makers, funding bodies, senior managers, teachers, students, education repositories and e-learning developers. The authors cited OER/OEP *enablers* as: resources to fund OER development; institutional policies on openness; and widespread use of open licensing. OER/OEP *inhibitors* were identified as lack of all of the above, as well as lack of realistic OER business models and lack of recognition and support for open educators. While progress has been made in some of these areas in the past decade, many remain issues of concern warranting action.

A significant contribution of the OLCOS project was its definition of OEP and the establishment of its importance with respect to OER and open education in general. The report noted that while OER can help to foster learners' self-direction, creativity, critical thinking, problem-solving and collaboration, this is not possible while the prevalent notions of "teacher-centred knowledge transfer" (Schaffert, 2008, p. 24) and "teachers perceived as dispensers of knowledge" (Geser, 2007a, p. 16) persist. The authors conceptualised the core of OEP as social constructivist learning and teaching. Published a decade ago, the *OLCOS Roadmap 2012* continues to be cited widely by OEP researchers (see Alevizou, 2012; Armellini & Nie, 2013; Cronin, 2017; Czerniewicz et al., 2017a; Czerniewicz, Deacon, Walji & Glover, 2017b; Hogan, Carlson & Kirk, 2015; Lane, 2010; Masterman, 2016; Paskevicius, 2017; Peter & Farrell, 2013; Stagg, 2014).

ii) OPAL initiative

A second widely cited OEP work is that from the Open Education Quality (OPAL) initiative. This two-year, cross-European initiative (2010-2011) set out to produce a framework of OER practices that improve quality and innovation in education. In addition to the final project report, *Beyond OER: Shifting Focus to Open Educational Practices* (Andrade et al., 2011), a number of papers and blog posts published before, during and after the project provide a rich picture of how the conceptualisation of OEP evolved (Camilleri & Ehlers, 2011; Camilleri, Ehlers & Pawlowski, 2014; Conole, 2011; Conole & Ehlers, 2010; Ehlers, 2011a, 2011b). Early in the project, Conole and Ehlers (2010, p. 2) defined OEP as: "a set of activities and support around the creation, use and repurposing of open educational resources (OERs)". Their conclusions proposed a somewhat broader definition of OEP, though still focused on OER: "the use of OER with the aim to improve quality of educational processes and innovate educational environments" (Conole & Ehlers, 2010, p. 3). In the final OPAL report, OEP was defined even more broadly (Andrade et al., 2011):

> OEP are defined as practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path (p. 12).

The OPAL report and related work conceptualised OEP as a transition from *phase 1*, focused on building OER and "embedding OER into learning and teaching practice" (Andrade et al., 2011, p. 11) to *phase 2*, focused on "using OER to transform learning" (Ehlers, 2011a, p. 4). Building on the OPAL findings, Ehlers (a member of the project team and co-author of the project report) developed a framework describing the constitutive elements of OEP (2011b, p. 4). The framework maps two dimensions in relation to one another: OER usage (low to high) and learning architecture (closed to open). Ehlers proposed that positive movement in either dimension leads to increasing OEP. While maintaining a focus on OER, the model illustrated that OER is just one constituent of OEP:

> OEP essentially represent collaborative practice in which resources are shared by making them openly available, and pedagogical practices are employed which rely on social interaction, knowledge creation, peer-learning, and shared learning practices (Ehlers, 2011a, p. 6).

The main OPAL project report (Andrade et al., 2011) and related papers by Ehlers and Conole (noted above) continue to be cited widely by researchers in OEP (see Armellini & Nie, 2013; Atenas, Havemann & Priego, 2014; Carey, Davis, Ferreras & Porter, 2015; Casey & Evans, 2011; Coughlan & Perryman, 2015; Cronin, 2017; Czerniewicz et al., 2017a, 2017b; Hogan et al., 2015; Karunanayaka, Naidu, Rajendra & Ratnayake, 2015; Masterman, 2016; Murphy, 2013; Nascimbeni & Burgos, 2016; Paskevicius, 2017; Smyth, Bossu & Stagg, 2016).

iii) UKOER programme

The UKOER programme provided a further development in the conceptualisation of OEP. In 2009 the Higher Education Funding Council for England (HEFCE), seeking to build on knowledge and practice gained from previously-funded OER projects (e.g. Jorum, Jisc Digital Repositories Programme), began funding initiatives to explore and support OER and OEP (McGill, Falconer, Dempster, Littlejohn & Beetham, 2013). One of these initiatives, the Jisc/Higher Education Academy *Open Educational Resources* (UKOER) programme, ran from 2009 to 2012. The purpose of the UKOER project was twofold: to deepen understanding of OER and OEP and to produce an evidence base (and enhance the status) of work supported in the UK and in the international OER field (McGill et al., 2013). Overall, 80 projects were funded by UKOER and the initiative produced several outputs: OER use case studies, the OER infoKit[3], the UKOER10 symposium[4], the *Open Practices: Briefing Paper* (Beetham, Falconer, McGill, & Littlejohn, 2012), and the final UKOER report, *Journeys to Open Educational Practice* (McGill et al., 2013). The latter two publications, in particular, have proven to be of ongoing significance for researchers in OEP, and open education more broadly.

Beetham et al. (2012) analysed the UKOER project outcomes and formulated an expansive definition of OEP encompassing six distinct practices:

- OER production, management, use and reuse
- Open/public pedagogies
- Open learning (including peer-to-peer learning and open accreditation)

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[3] OER infoKit: https://www.jisc.ac.uk/guides/open-educational-resources

[4] UKOER10 symposium: https://www.jisc.ac.uk/guides/open-educational-resources

- Open scholarship (including open research, open data and open access publication)
- Open sharing of teaching ideas
- Use of open technologies (including social media and digital open tools)

Using empirical evidence from a range of UKOER projects, Beetham et al. (2012) showed that not all forms of OEP occur together, and more specifically, that OER and OEP are not necessarily coincident. OEP often emerges through OER activities, but creation/use of OER may not always be the first sign of openness in educational practice: "other practices may have more immediate pay-offs and a lower adoption threshold" (p. 11). Thus, it is important to consider the use of OEP in specific contexts. The authors found, for example, that different academic disciplines tended to adopt the aspects of OEP that amplified their existing pedagogic practices.

In addition to providing an expansive conceptualisation of OEP, the UKOER research highlighted the potential of OEP to "flatten the traditional hierarchy and change the balance of power in learner/teacher relationships" (McGill et al., 2013, p. 10) and identified key issues for students, staff, institutions and the community, particularly highlighting the challenge of "cultural inertia/cultural change" with respect to openness (Beetham et al., 2012, p. 10). The work that emerged from UKOER continues to be an important resource for OEP researchers, particularly those focusing on power relations, inequality, and/or culture change (see Carey et al., 2015; Cronin, 2017; Czerniewicz et al., 2017a, 2017b; Paskevicius, 2017; Udas, Partridge & Stagg, 2016).

iv) CILT (Centre for Innovation in Learning & Teaching), UCT

With the prevalence of OER and MOOC production emerging from the Global North, researchers in the Global South have asserted the need for more diverse perspectives in, and contributions to, academic knowledge (Czerniewicz, 2013; Czerniewicz & Naidoo, 2013). The same is true for OEP, where "most OEP frameworks draw on Global North contexts and there's [a] lack of shared understanding of terms and of open pedagogy" (ROER4D, 2017). Researchers in CILT (Centre for Innovation in Learning & Teaching) at the University of Cape Town (UCT) have published work which comprises the fourth significant body of OEP research identified in the literature review. CILT has been and continues to be active in many areas of open education research and practice – open scholarship, OER, MOOCs, and OEP – a notable example of which is the recent ROER4D (Research in Open Educational Resources for Development) project (Hodgkinson-Williams & Arinto, 2017).

As with the three strands of OEP research already described, CILT research has emphasized the importance of broadening studies of OER to include OEP, with a particular emphasis on wider global perspectives:

> The move to incorporate 'practice' in the definition signifies the acknowledgement that content disembedded from its context is difficult to adapt without some understanding of the pedagogical and epistemological assumptions underlying the creation of the resource. The latter are of particular import as different views on what is considered 'worthwhile knowledge' are likely to increase with the ready access to materials from different parts of the world (Hodgkinson-Williams, 2010, p. 6).

In 2009, based on an extensive review of the literature as well as extant practice at UCT, Hodgkinson-Williams and Gray (2009) created a framework for analysing openness along a continuum using four degrees of openness: social, technological, legal and financial. In a later refinement of the framework, Hodgkinson-Williams (2014) elaborated further, disaggregating the social dimension of openness into two dimensions: cultural and pedagogical. The revised framework has five attributes of openness within a larger 'Open Education' cycle:

- *Technical* (interoperability and open formats; connectivity; technical skills & equipment; availability and discoverability of resources)
- *Legal* (open license parameters; open license knowledge and advice)
- *Cultural* (conceptions of knowledge as given or constructed; curricula)
- *Pedagogical* (student demographics and types of engagement; pedagogic, learning & assessment strategies; accreditation/certification)
- *Financial* (costs ranging from free to fees; sustainable business models)

This broad and critical conceptualisation of OEP has been cited by many OEP researchers (see Arinto, et al., 2017; Cox & Trotter, 2016; Cronin, 2017; Czerniewicz, et al., 2017a, 2017b; Nerantzi, 2017; and Paskevicius, 2017).

Evolving definitions of OEP

The four theoretical conceptualisations of OEP prevalent in the literature, comprising three specific OER/OEP projects and one body of research emerging from an academic unit, are summarised in Table 1. Despite their differences, all four conceptualisations of OEP focus on both OER and collaborative pedagogical practices as a means of transforming education. Of the four, the UKOER and CILT conceptualisations are the most expansive: encompassing a broad view of scholarship, including both research and teaching; acknowledging the potential decoupling of OER and OEP, detailing the integral role of context in the use of OEP, and establishing the need for diverse and inequality-focused perspectives.

Table 1: Four key strands of OEP research cited in the literature

	OLCOS project	OPAL initiative	UKOER programme	CILT research
Year	**2006-07**	**2010-11**	**2009-12**	**2009-present**
Scope	**Europe**	**Europe**	**UK**	**Africa/Global South**
Publications	Geser (2007a, 2007b), Schaffert (2008), Schaffert & Geser, (2008)	Andrade et al. (2011), Camilleri & Ehlers (2011), Conole (2011), Conole & Ehlers (2010), Ehlers (2011a, 2011b)	Beetham et al. (2012), McGill et al. (2013)	Hodgkinson-Williams & Gray (2009), Hodgkinson-Williams (2010); Hodgkinson-Williams (2014), Czerniewicz et al. (2017a, 2017b)
Definition of OEP	"practices that involve students in active, constructive engagement with content, tools and services in the learning process, and promote learners' self-management, creativity and working in teams" (Geser, 2007a)	"practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path" (Andrade et al., 2011)	6 practices: OER production, management, use and reuse; open/public pedagogies; open learning; open scholarship; open sharing of teaching ideas; use of open technologies" (Beetham et al., 2012)	5 dimensions of openness: technical, legal, cultural, pedagogical, financial (Hodgkinson-Williams, 2014)

In our analysis, we found that one or more of these definitions of OEP have been cited in all subsequent academic literature in the area of OEP. In recent theoretical work, for example, Stagg (2014) proposed a model of OEP focused on OER adoption, referencing conceptualisations of OEP from both the OLCOS and OPAL projects. And in a proposed model of OEP in relation to teaching practices, Paskevicius (2017) positioned his work with respect to all four strands identified above. A range of empirical work is examined later in this paper.

OEP-related concepts

In addition to diversity across various conceptualisations of OEP, education researchers in many domains have described and theorised the practices defined in this study as OEP using a variety of other concepts. *Networked learning* and *connected learning*, for example, also acknowledge the ubiquity of knowledge across networks and share core assumptions about the importance of educational access, equity and participatory learning (Gogia, 2016). Yet even within the domain of open education, multiple concepts have evolved, and continue to evolve, as researchers and practitioners seek to identify and analyse 'open practices'. These concepts include *open scholarship* (Veletsianos & Kimmons, 2012a; Weller, 2011), *networked participatory scholarship* (Veletsianos & Kimmons, 2012b), *open pedagogy* (DeRosa & Robison, 2015, 2017; Hegarty, 2015; Weller, 2014), *open teaching* (Couros, 2010; Couros & Hildebrandt, 2016), and *critical digital pedagogy* (Rosen & Smale, 2015; Stommel, 2014). All describe emergent scholarly practices that espouse OER use/ production, open learning and teaching, collaboration (in the form of networked participation) and empowering learners to co-create knowledge.

Open scholarship and networked participatory scholarship

Current conceptions of *open scholarship* and the 'open scholar' began to emerge in the literature in 2009 (Anderson, 2009; Burton, 2009) and developed rapidly thereafter. Open scholarship was characterised as a "new type of education and scholarship context" which sought to maximise social learning, media richness, participatory and connectivist pedagogies, ubiquity and persistence, open data and research, and connections (Anderson, 2009). Weller (2011) proposed a definition of the open scholar encompassing open digital identity, open networking practices, use of open tools, and open publishing. Veletsianos & Kimmons (2012a) also proposed a definition of open scholarship as a set of phenomena and practices related to scholars' uses of digital and networked technologies for both research and teaching, all underpinned by "grounding assumptions regarding openness and democratization of knowledge creation and dissemination" (para. 3). Veletsianos and Kimmons articulated three major forms of open scholarship: open access and open publishing; open education (including OER and open teaching); and networked participation, also called networked participatory scholarship.

Networked participatory scholarship (NPS) itself has become a central concept in research in the fields of digital, networked and open education (Costa, 2014; Jordan, 2017; Masterman, 2016; O'Keeffe, 2016; Stewart, 2015, 2016; Veletsianos & Stewart, 2016). Veletsianos and Kimmons (2012b) define networked participatory scholarship as an emergent practice: "use of participatory technologies and online social networks to share, reflect upon, critique, improve, validate, and further their scholarship" (p. 768). Examples of NPS include use of social media and social networking for scholarly purposes and courses structured as networks. Knowledge is positioned around social connections rather than around content, enabling scholars to "re-envision teaching, instruction, their role as teachers, and the ways that knowledge is acquired in modern society" (Veletsianos & Kimmons, 2012b).

Both open scholarship and networked participatory scholarship align with expansive definitions of OEP in the sense of using a broad view of scholarship, i.e. inclusive of both research and teaching. While open scholarship is a broad 'umbrella' term, covering a wide range of open practices, networked participatory scholarship focuses on the individual scholar who enacts open identities and practices.

Open pedagogy and open teaching

Open pedagogy and *open teaching* are similar to the preceding concepts, with one exception. While open scholarship and NPS relate to a broad spectrum of scholarly practices, i.e. research as well as teaching, open pedagogy and open teaching focus on the latter. In 2010, Couros defined *open teaching* as "facilitation of learning experiences that are open, transparent, collaborative, and social" by open teachers who "support their students in the critical consumption, production, connection, and synthesis of knowledge through the shared development of learning networks" (p. 115). Couros (2010) and Couros and Hildebrandt (2016) developed the concept of *open teaching* based on several years of teaching experiences and student feedback on an open-access, graduate level, educational technology course (EC&I 831 Social Media and Open Education) at the University of Regina.

The concept of *open pedagogy* initially emerged in the first wave of open education in the 1960s and 1970s, reflecting the educational mind-set and wider political movements of that time, e.g. advocating for human rights, decolonisation and social justice (Deimann & Sloep, 2013; Freire, 1996; International Commission on the Development of Education, 1972; Lane, 2009; Siemens & Matheos, 2010). The concept has re-emerged in the context of the current open education movement and is often counterpoised with OEP. Hodgkinson-Williams and Gray (2009) defined open pedagogy in their work exploring degrees of openness:

> While acknowledging the potential value of content, we contend, however, that it is the opening up of educational processes, which we are calling Open Pedagogy (OP) enabled by the Web 2.0 technologies that are set to play the more transformational role in the collaboration between students and lecturers (p. 101).

Weller (2014) similarly defined open pedagogy as making use of open content, but with an emphasis on the network and learners' connections within and across networks. Hegarty (2015) described open pedagogy as a combination of three main practices: using participatory technologies; developing open, collaborative and networked practices; and facilitating learners' contributions to OER. More recently, DeRosa and Robison (2017) have defined open pedagogy as "[using] OER as a jumping-off point for remaking our courses so that they become not just repositories for content, but platforms for learning, collaboration and engagement with the world outside the classroom" (p. 118).

DeRosa and Robison (2015, 2017) and Rosen and Smale (2015) present their definitions of open pedagogy and open digital pedagogy, respectively, as versions of *critical digital pedagogy*. Critical digital pedagogy focuses on the potential of open practices to create dialogue, to deconstruct the teacher-student binary, to bring disparate learning spaces together, and, often, to function as a form of resistance to inequitable power relations within and outside of educational institutions (Morris & Stommel, 2014; Stommel, 2014). Similarly, Farrow (2015) contends that a critical approach should be at the heart of open education:

> By democratizing the processes through which educational materials and processes are designed and delivered, open education allows a greater plurality of voices to be heard and to contribute, and the experiences of groups who are often marginalized may be better heard: perhaps this is what we should really mean when we refer to education as 'open' (p. 14).

Overall, each of the above definitions of open pedagogy aligns with expansive definitions of OEP. We consider open pedagogy to be a subset of OEP; while open pedagogy embodies a critical approach and emphasis on context, it is focused on teaching and learning as compared with broader aspects of scholarship.

Conceptions of open pedagogy continue to evolve, with a notable increase in discussion and debate amongst open educators and researchers from across the Global North and Global South in 2017, the 'Year of Open' (Bali, 2017). One of these debates centred on a contestation of whether OER was an essential component of open pedagogy – mirroring similar developments within OEP. David Wiley, author of the 4R, and later the 5R, framework of OER (Wiley, Bliss & McEwen, 2014), had formerly espoused a firmly OER-focused definition of open pedagogy, i.e. "open pedagogy is that set of teaching and learning practices only possible in the context of the free access and 4R permissions characteristic of open educational resources: (Wiley, 2013, section 5, para. 1). Reflecting upon the burgeoning diversity of interpretations of open pedagogy, Wiley latterly proposed a more specific concept to enable clarity in his work: *OER-enabled pedagogy*, "the set of teaching and learning practices only possible or practical when you have permission to engage in the 5R activities" (Wiley, 2017). Clearly, this new definition aligns with OER-focused definitions of OEP. This example highlights a hallmark of open education research since its inception, i.e. the tendency for 'open' to encompass many different interpretations and the capacity for the field to evolve accordingly.

Empirical studies of OEP

Much of the extant literature in open education focuses on OER, open textbooks, and open access publishing. However, our concern in this paper is exploring the literature on OEP. In our review of the empirical OEP literature, we focused on studies that gathered and analysed data (e.g. via surveys, interviews, observations, case studies) in order to understand the development and use of OEP in specific contexts. Many empirical studies of OEP focus specifically on practices and policies that support the creation, use and repurposing of OER. Examples include:

- In their study of open educational practices for curriculum enhancement, Armellini and Nie (2013) developed a framework of OEP based on "patterns of OER reuse" mapped against the processes of curriculum design and delivery.
- In her study of OEP in higher education, Murphy (2013) defined OEP as "policies and practices implemented by higher education institutions that support the development, use and management of OER and the formal assessment and accreditation of informal learning undertaken using OER".
- Schreurs et al. (2014) studied the social learning activities of open practitioners, defining OEP as "a set of activities and support around the creation, use and repurposing of OER and MOOCs".
- In defining open teaching landscapes, Atenas et al. (2014) considered OEP in the context of developing "a framework to enhance the development and quality of OER".
- And Naidu and Karunanayaka (2017) developed an Open Educational Practices Impact Evaluation (OEP-IE) Index in order to study the impact of OER integration on teaching and learning in Sri Lankan schools.

These studies, and nearly all empirical studies that use OER-focused definitions of OEP, make reference to definitions of OEP developed within the OLCOS and/or OPAL projects. Karunanayaka et al. (2015), for example, developed support for academic staff who develop and implement OER-based e-learning by using the OEP frameworks developed by Ehlers (2011b). Overall, this body of

work, both theoretical and empirical, focuses on 'phase 2' of OER (as identified in the OPAL project), i.e. improving learning experiences and empowering learners through the use of OER.

Other empirical studies use more expansive definitions of OEP, often citing the earlier OEP studies (Andrade et al., 2011; Ehlers, 2011a, 2011b; Geser, 2007a), but also drawing on the work of Beetham et al. (2012) and Hodgkinson-Williams (2014). These studies move beyond a focus on OER-related activities and in some cases, recommend considering OEP separately from OER. Nascimbeni and Burgos (2016) take such an approach in their study of "the Open Educator":

> We believe it is important to 'disconnect' the concept of open teaching from the use of OER since many teachers are indeed using open methodologies in their classroom activities, for example by fostering co-creation of knowledge from students allowing them to enrich the course content with any complementary information they deem important. In our view, these teachers can be indeed considered Open Educators even if they do not use – and maybe do not even know the existence of – OER (p. 7).

Czerniewicz et al. (2017a, 2017b) explicitly used an inequality lens in their work on 'MOOC-making and open educational practices'. Using both empirical research and the OEP frameworks developed by Beetham et al. (2012) and Hodgkinson-Williams (2014), they present four dimensions of OEP in a MOOC environment: (i) legal openness; (ii) pedagogic openness and learning in open networks; (iii) encouraging others to teach and learn in open networks; and (iv) reusing content in teaching and other contexts (Czerniewicz et al., 2017a, 2017b). As in the UKOER project, OEP in this study was found to be highly contextualised, with use of OEP *preceding* and then *leading to* further use of OER.

Similarly, in a separate empirical study, Cronin (2017) found evidence that the use of OEP, specifically networked participatory scholarship and open pedagogy, can lead to OER awareness and use. In a study of the open practices of educators in international health projects, Coughlan and Perryman (2015) concluded that existing OEP frameworks are not sufficiently comprehensive or nuanced to analyse existing practice. They proposed extending the OPAL OEP matrix to add a social configuration dimension. Many other open education and OEP researchers also focus on social learning and collaboration, particularly the use of social media and participatory technologies for learning (Casey & Evans, 2011; Timmis, 2012; Veletsianos, 2015; Veletsianos & Navarrete, 2012; Waycott, Sheard, Thompson & Clerehan, 2013).

Some studies use expansive definitions of OEP to explore power relations and inequality within higher education. For example, Rowe, Bozalek and Frantz (2013) noted shifts in power within open learning environments, i.e. "a movement of power away from teachers as students took control of their learning, and the emergence of critical attitudes towards knowledge and authority" (p. 605). And in their 'Open Empowered Learning Model', Smyth et al. (2016) frame OEP as a way to "support social transformation, sharing and co-creation of knowledge in fully open ecosystems, where benefit for social good is expected" (p. 211). Bossu and Fountain (2015) used this expansive definition of OEP to create an open online professional development course to develop and enhance the capacity of academics in Australia to adopt and incorporate OER and OEP.

Discussion

This paper describes a review and analysis of the literature in OEP with the aim of identifying how the conceptualisation of OEP has evolved. In summary, across the literature, there are four distinct strands of OEP research (summarised in Table 1). The earliest work (emerging from OLCOS and OPAL, independently) began as OER studies but concluded with broader recommendations for developing OEP. Both projects proposed definitions of OEP that included the use and creation of OER as well

as collaborative pedagogical practices. Subsequent research by UKOER and CILT acknowledged these earlier OEP conceptualisations but added further analytic complexity. The UKOER research expanded the concept of OEP, allowing for a decoupling of OER and OEP and underscoring the importance of context. CILT research further established the need for contextualised studies of OEP, particularly highlighting the need for perspectives beyond those of the Global North, and also provided a framework for assessing the complexity of openness in practice.

In conducting our analysis, we found that underlying assumptions in early studies of OEP remain evident in more recent OEP literature. One of these assumptions is that OEP is predicated on the use of OER. When the concept of OEP first emerged in the OLCOS and OPAL project reports and related work, it facilitated new conversations about open education in practice, particularly with respect to teaching and learning. However, later empirical studies have found that aspects of OEP may emerge independently of OER and may in fact lead to OER use – rather than the reverse being the case (Beetham, et al., 2012; Cronin, 2017; Czerniewicz, et al., 2017a, 2017b). As Zourou (2016) notes: "the value of openness is understood differently and it triggers different types of practice, not always open" (para. 43). Adoption of OEP is often uneven and does not always begin with the use of OER. There remains a clear delineation in the empirical literature between studies that define OEP as necessarily inclusive of OER and studies of emergent practices that highlight multiple entry points to, and avenues of, openness. Such differences mirror similar debates in the conceptualisation of open pedagogy, an example of which is the recent coining of the term "OER-enabled pedagogy" (Wiley, 2017).

The foundational assumptions of OEP are not new. With a focus on social learning and construction of knowledge by learners, definitions of OEP and OEP-related concepts have their theoretical foundations in constructivist, social constructivist and connectivist educational philosophies. Expansive conceptualisations of OEP also adopt a critical approach, often with the aim of challenging traditional educational practice. Overall, we found that expansive conceptualisations of OEP encompass a broad view of scholarship including both research and teaching; acknowledge the potential decoupling of OER and OEP; recognise the integral role of context in the use of OEP; and acknowledge the need for diverse and inequality-focused perspectives.

Conclusion

We contend that understanding the roots of the various definitions of OEP can help to illuminate underlying assumptions in existing work as well as in the current approaches of researchers and practitioners. This understanding is valuable for researchers of OEP, but also for researchers of OER and other aspects of open education. Limitations of the research include the narrow focus on OEP and open education alone. As noted within the paper, we did not explore the considerable body of work in the areas of OER, open textbooks and MOOCs; nor did we include research in the areas of networked learning and connected learning. Further study of the connections between these domains would yield additional valuable insights, as suggested by Gogia (2016). However, we found that the use of a narrow 'OEP' lens for this study enabled a deep exploration of subtle but important epistemological differences in the work in this area.

The deceptively simple term 'open' hides a "reef of complexity" (Hodgkinson-Williams & Gray, 2009, p. 114), much of which depends on the particular context within which OEP is considered. Thus, it is imperative to move beyond open-closed dichotomies and even unified conceptions of openness. We contend that expansive conceptualisations of OEP acknowledge the complex, actual and situated practices of teaching and learning – where context influences the choice and use of OEP, where OEP may emerge before the use of OER, and where critical approaches to open education may be realised.

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