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Openness and Praxis:
A Situated Study of Academic Staff Meaning-making and Decision-making
with Respect to Openness and Use of Open Educational Practices
in Higher Education

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This dissertation is submitted to the National University of Ireland, Galway
in fulfilment of the requirements for the award of the degree of
Doctor of Philosophy

April 2018
I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

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Catherine Cronin
April 12, 2018
Abstract

Open education seeks to improve educational access, effectiveness, and equality. The term ‘open educational practices’ (OEP) describes practices that include the creation, use and reuse of open educational resources (OER) as well as open pedagogies and open sharing of teaching practices. While open education at a macro level is regarded by many as a positive goal, complexity resides in determining and negotiating the value of open practice at an individual level, and structural and cultural barriers to openness persist within higher education. The goal of this research study was to understand whether, why, how, and to what extent individual educators used OEP, specifically with respect to teaching, and also to identify any shared characteristics among those who used OEP (i.e. ‘open educators’). The study was conducted at a medium-sized, research-focused university in Ireland, without explicit policies on OER or OEP. The empirical study used a qualitative, interpretive, and critical approach in order to focus on participants’ meaning-making and decision-making with respect to openness. Data was gathered from academic staff across a broad range of disciplines and all employment categories (i.e. permanent, non-permanent, full-time and part-time). Using constructivist grounded theory, a model of the concept ‘Using OEP for teaching’ was constructed to describe open educators’ digital identities and digital practices, and the values and motives associated with decisions about whether to use OEP. The results of the study indicated little intentional use of OER and relatively low use of OEP. The four dimensions shared by open educators were: (i) balancing privacy and openness, (ii) developing digital literacies, (iii) valuing social learning, and (iv) challenging traditional teaching role expectations. The use of OEP by academic staff was found to be complex, personal, contextual, and continually negotiated. The study adds to a growing body of work on open educational practices and also provides evidence for policy makers and practitioners arguing for critical and context-specific approaches to open education.
Acknowledgements

Firstly, I thank each of the interview participants in this study for their time and their generous and thoughtful contributions. Thanks also to all academic staff and students who completed the surveys. This work would not have been possible without you.

I thank my supervisor, Iain MacLaren, for listening, guiding, encouraging, and advising, with wisdom and good humour always. Thanks also to my Graduate Research Committee – Kelly Coate, Kathryn Cormican, Mary Fleming, and Simon Warren – for valuable and timely feedback at key stages in the research process.

Thanks to my wonderful colleagues and friends in CELT and NUI Galway for daily sustenance in so many ways. A special note of thanks to Conor Galvin, Pam Moran, Ira Socol, and my #icollab and #edchatie collaborators for nurturing early seeds of this work and Rachel Hilliard for offering and organising writing support at crucial times.

I owe a huge debt of gratitude to all who reviewed drafts of this writing and provided feedback and encouragement: Caroline Kuhn, Frances Bell, Mary Loftus, Sharon Flynn, Leigh Graves Wolf, Pamela O’Brien, Su-Ming Khoo, Leo Havemann, Louise Drumm, Maha Bali, Fiona Concannon, Laura Pasquini, Patrice Prusko, and Barbara McKeon. Immense thanks also to my GO-GN colleagues, particularly all who participated in the 2017 Cape Town workshop. This global network of open education PhD scholars, sparked by the vision of the Open Education Research Hub, has been instrumental in developing my work.

I would not be working in open education, nor doing this research, were it not for my PLN, the network of educators, scholars and friends who encourage, inspire and teach me every day. Impossible to thank each of you here, but please know that your scholarship, your kindness and your encouragement lie right at the heart of my work in open education and motivate me to do this vital work. Thank you all.

Two wonderful friends and scholars engaged with the ideas for this research in its earliest forms, but sadly are not here today. I want to thank and honour the memories of Mary Mulvihill and Bianca Ní Ghrógáin, two incredible Irish women who inspired and taught so many with their joy of learning, teaching, and life.

Finally, I am grateful beyond words to my dearest family and friends, who kept the home fires burning, happily accommodated mad schedules and dashed plans, and encouraged and inspired me, not just along this PhD journey but always. Thank you, Hamish, Sarah, James, Mary and Bonnie, Dan and Katherine, Jean, Isobel and John, Meg and Andrew, Rose, Rowan, Ursula, Pat, Bernadette, Robin, Jane, Ali, Fi, and all.
This thesis is dedicated with love and the deepest gratitude

To my parents, Catherine (Devine) Cronin and Daniel Cronin,

To my husband and anam cara, Hamish, and

To Sarah and James, my best teachers and the sunshine of my life.
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<tr>
<td>ASSBL</td>
<td>Arts, Social Sciences, Business and Public Policy, and Law</td>
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<tr>
<td>CC</td>
<td>Creative Commons</td>
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<tr>
<td>CELT</td>
<td>Centre for Excellence in Learning and Teaching (NUIG)</td>
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<td>CESI</td>
<td>Computers in Education Society of Ireland</td>
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<td>CILT</td>
<td>Centre for Innovation in Learning and Teaching (UCT)</td>
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<tr>
<td>FOSS</td>
<td>Free and Open Source Software</td>
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<td>HEIs</td>
<td>Higher Education Institutions</td>
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<tr>
<td>LMS</td>
<td>Learning Management System</td>
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<td>MIT</td>
<td>Massachusetts Institute of Technology</td>
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<td>MOOCs</td>
<td>Massive Open Online Courses</td>
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<td>NUIG</td>
<td>National University of Ireland, Galway</td>
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<td>NPS</td>
<td>Networked Participatory Scholarship</td>
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<tr>
<td>OA</td>
<td>Open Access</td>
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<tr>
<td>OCW</td>
<td>OpenCourseWare (MIT)</td>
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<td>OEP</td>
<td>Open Educational Practices</td>
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<td>OER</td>
<td>Open Educational Resources</td>
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<tr>
<td>OLCOS</td>
<td>Open eLearning Content Observatory Services</td>
</tr>
<tr>
<td>OPAL</td>
<td>Open Education Quality initiative</td>
</tr>
<tr>
<td>OU</td>
<td>The Open University (UK)</td>
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<tr>
<td>PLN</td>
<td>Personal Learning Network</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>STEMM</td>
<td>Science, Technology, Engineering, Mathematics, and Medicine</td>
</tr>
<tr>
<td>UCT</td>
<td>University of Cape Town</td>
</tr>
<tr>
<td>UKOER</td>
<td>UK Open Educational Resources programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>VLE</td>
<td>Virtual Learning Environment</td>
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Where perfection – or nearness to it – is imagined
Not in the aiming but the opening hand.

– Seamus Heaney
Chapter 1. Introduction

This thesis will focus on the use of open educational practices (OEP) in higher education. Wiley and Hilton III (2009) have argued that openness is a fundamental value underlying changes in society and that every higher education institution must address openness “as a core organizational value” (p. 1) if it desires to remain relevant — to its learners as well as to the field of higher education. Many universities and educational organisations, globally, enable open access of research outputs, offer open online courses, and support the creation and use of open educational resources. However, practical, structural, and cultural barriers to open education persist within higher education. These include lack of awareness, lack of the requisite skills and tools, lack of time, lack of trust, and incompatibility between existing institutional cultures and the philosophy of open education (Andrade et al., 2011; Corrall & Pinfield, 2014; Geser, 2007a; Mishra, 2017; Weller, 2014; Wiley, 2007; Zourou, 2017).

This study is set within a broader research context concerned with understanding the current practices of open education, including open scholarship (Weller, 2011b) and networked participatory scholarship (Veletsianos & Kimmons, 2012b), and the ways in which these are enacted within, integrated with, and in tension with, higher education. Institutional policies and practices themselves are not the focus of this study. Rather, the study explores the motives, values and teaching practices of academic staff situated within higher education, with respect to openness. The study examines specific aspects of the use of open educational practices, i.e. whether, why, how, and to what extent academic staff use OEP, and the characteristics shared by academic staff who use OEP (helping us to understand the ‘open educator’).

This introductory chapter sets the scene with an overview of open education and open educational practices. I go on to explore key challenges with respect to using OEP in higher education and then describe the purpose and significance of this study. I briefly discuss the methodological approach and my position as the researcher. The chapter concludes with a roadmap of the thesis.

1.1 Open education and higher education

Higher education operates within a rapidly changing sociotechnical context characterised by ubiquitous connectivity, a shift from knowledge scarcity to knowledge abundance, and a move from hierarchical toward more networked forms of social organisation. Over the past 25 years, the rapid expansion of digital, networked, and mobile technologies has enabled new ways to communicate, collaborate, work, play, socialise, and engage as citizens. In addition, however, such changes also have
prompted redefinitions of privacy and ownership, enabled new forms of surveillance and harassment, and in some cases, exacerbated inequality (C. Brown & Czerniewicz, 2010; Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009; Lane, 2009; Peña-López, 2010; A. White, 2014).

Open education, defined as “a form of universal education available to all through freely accessible and ubiquitous knowledge bases” (Blessinger & Bliss, 2016, section 3, para. 10), aims to utilise the affordances of digital technologies to improve educational access, effectiveness, and equality (Lane, 2009, 2016; Open Education Consortium, n.d.). Current forms of open education draw on a long history of social, political, and education movements that have aimed to widen access to education and advance equality. The birth of the current open education movement, however, can be traced to the early 1990s, when affordances of digital technologies began to enable new forms of flexibility, access, and openness. In 2011, Weller observed: “The combination of digital content and a global, socially oriented distribution network has created the conditions in which new interpretations of open education can develop” (2011b, p. 99).

Developments have continued at a rapid pace, with a plethora of ‘opens’ including open access (OA), open science, open research, open data, massive open online courses (MOOCS), open educational resources (OER), open pedagogy, and open educational practices (OEP) (Corrall & Pinfield, 2014; Inamorato dos Santos, Punie, & Muñoz, 2016; Jhangiani & Biswas-Diener, 2017; Jordan & Weller, 2017; McKiernan, 2017; Pomerantz & Peek, 2016; van der Vaart, 2013; Weller, 2011b, 2014).

Fundamental to all forms of openness is the right of access (Pomerantz & Peek, 2016). The open access (OA) movement, focusing primarily on open access to scholarly literature, has spread broadly throughout higher education in the past decade. The practices, benefits, and challenges of open access are explored in Chapter 2, along with other aspects of open education. Here in this introductory chapter, however, I highlight three developments in open education of particular relevance to this study: open educational resources (OER), massive open online courses (MOOCS), and open educational practices (OEP).

The term open educational resources (OER) was coined in 2002 to define teaching, learning, and research resources released under an open license to permit free use and repurposing by others (Hewlett Foundation, n.d.). The granularity of OER can vary from individual items such as images, videos, or documents, to entire open courses or open textbooks. The open license for each OER (typically a Creative Commons license (M. Smith & Bliss, 2017)) can be configured and assigned by the copyright holder in order to grant users specific rights for re-use. OER can be produced using any media and shared anywhere.

Another significant development in open education was the rapid evolution of massive open online courses or MOOCs, beginning in the mid-2000s (Marques, 2013; Moe,
The first MOOCs were designed to explore connectivism, i.e. the principle that connections enable us to learn more and are more important than our current state of knowing (Downes, 2007; Siemens, 2005). Early MOOCs allowed large numbers of learners to collaborate, create and share content, and engage in discussion using open platforms such as forums, blogs, and social networks (Marques & Maguire, 2013). In 2012, the MOOC trajectory changed dramatically. Online courses offered openly on the web, at no cost, by Stanford University in 2011, and others soon afterward, were dubbed ‘MOOCs’ by the popular press (Pappano, 2012; Watters, 2012). While the original MOOCs (‘cMOOCs’) intentionally used OER and connectivist pedagogies, institutional MOOC offerings (‘xMOOCs’) tended to rely on video lectures and typically did not openly license their course materials, so they were not available for reuse. MOOCs continue to be developed, and the binary cMOOC/xMOOC distinction is no longer readily applicable (Bayne & Ross, 2014). The single term ‘MOOC’, however, masks enormous differences in definitions of openness, pedagogies, assumptions about learners, and level of integration with other higher education functions, such as assessment and certification (Bates, 2014; Czerniewicz, Deacon, Glover, & Walji, 2017; Moe, 2015b; Moss, 2013; Weller & Anderson, 2013).

Thirdly, also in the past decade, open educational practices or OEP have emerged as a key area of development within open education. A widely used definition by Ehlers (2011, p. 4) describes OEP 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.” Simply put, OEP combine open educational resources (OER), open pedagogies, and transparent processes, with the overall goal of improving access, enhancing learning, and empowering learners (Andrade et al., 2011; Beetham, Falconer, McGill, & Littlejohn, 2012; Ehlers, 2011a; Geser, 2007a; Hodgkinson-Williams, 2014). As with OER, the granularity of OEP can vary, from a teacher opening a conversation with students in open online spaces (e.g. via social media or blogs), thereby inviting others to join – to offering completely open (and openly licensed) online courses. The foundational assumptions of OEP are not new. With a focus on social learning and construction of knowledge by learners, OEP have theoretical foundations in social constructivist and connectivist educational philosophies (Anderson & Dron, 2010; Bates, 2015b; Bell, 2010; Dron & Anderson, 2014; Ravenscroft, 2011; Siemens, 2005). Yet OEP, as with other forms of open education, present opportunities as well as challenges and contradictions when practiced within higher education. This is the area of exploration of this study.

The challenges presented by open education within higher education are many. MOOCs require coordinated commitment within universities, e.g. support in areas such as learning design, copyright and legal advice, and media creation, as well as content
expertise. OER and OEP are different. The scale at which OER or OEP can be implemented ranges from single acts of open sharing or connection to the development of fully open textbooks or courses. Thus, the role of individual agency with respect to OER and OEP is an area of great interest (Cox, 2016; Cox & Trotter, 2016; Mulder & Janssen, 2013; Veletsianos, 2015a) and is explored in this study.

OER in higher education, including but not limited to open textbooks, have the potential to dramatically reduce costs for students (and therefore improve access) as well as to enhance learning and empower students to be co-creators of learning resources. However, uptake of OER in higher education has been low and uneven. A national study of OER use by academic staff in Irish higher education institutions (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a) found that:

The majority of participants had low levels of awareness of OER and poor understanding of the associated issues... The understanding of the concept of ‘openness’ is very limited with a majority of respondents equating ‘sharing’ of resources, with, for example, what happens between teachers and their students and between teachers and their colleagues in closed spaces. (p. 104)

This concurs with similar findings in Australia, Canada, South Africa, Sri Lanka, the UK, and the US (Allen & Seaman, 2016; Bossu, Bull, & Brown, 2012; Farrow et al., 2015; Hodgkinson-Williams, 2014; Karunanayaka, Naidu, Rajendra, & Ratnayake, 2015; Reed, 2013; Rolfe, 2012; Walji & Hodgkinson-Williams, 2015). While much research has been done on MOOCs and OER (as explored in Chapter 3), and in the related areas of open access publishing and open textbooks, less research has been done on the use of OEP. There is a need for more in-depth studies of open educational practices that are situated in specific contexts – particularly institutions that do not advocate for openness (Veletsianos, 2015a). This study was designed to address this gap.

1.2 Design of the study

The overall goal of the study was to understand whether, why, how, and to what extent academic staff use open educational practices for teaching, and also to identify any shared characteristics among those who use OEP (i.e. ‘open educators’). A deliberate decision in the design of the study was to gather data from academic staff across a broad spectrum of disciplines and practices. Engaging in OEP is an individual choice; this is particularly the case in institutions without policies that encourage or support the use of OER or OEP. So how and why do some academic staff and not others choose to use open educational practices? In addition, the definitions of openness, open education, and open educational practices (OEP) are multiple and contested (as explored in Chapter 3). Research studies in which participants are asked about their
engagement with openness (e.g. use of OER, use of OEP) may yield unreliable results. This research study was designed to avoid this risk.

The empirical study was designed to be qualitative, interpretive, and critical, so that the practices as well as the assumptions, motives, and values of academic staff could be explored in depth. Rather than beginning from a standpoint that presumed the value of openness for all (e.g. asking how the use of OEP can be encouraged or increased), the focus was on participants’ own meaning-making and decision-making regarding openness. The methodology used was constructivist grounded theory (Charmaz, 2014) – a research methodology suited to studying meaning and meaning-making, and to building emergent understandings based on participants’ concerns. The research site was the National University of Ireland, Galway (NUIG), a medium-sized, research-focused, campus-based university.

The study was divided into two phases. Phase I comprised in-depth interviews with a diverse range of academic staff, from across all discipline areas at the research site, including permanent, full-time, fixed-term and part-time members of staff. Participants spanned a continuum of practices with respect to openness, e.g. enthusiastically-open educators, educators using open practices in some ways but not others, and educators adamantly against using open practices. Participants were asked to describe their digital rather than their open practices, thus avoiding the pitfall of conflating various interpretations of ‘open’. Where participants described digital practices that were open, or discussed their assumptions or opinions regarding openness, these responses were explored further. Overall, this approach helped to build a detailed picture of the diversity of academic staff engagement, meaning-making, and decision-making with respect to openness.

Following the first phase of the study, the data were analysed, themes identified, and an initial grounded theory model was built. To further illuminate the grounded theory findings, Phase II of the study comprised a survey of academic staff at the research site (based on the Phase I themes and findings); follow-up interviews with two open educators; and a survey of students to explore their responses to invitations by their lecturers to use OEP. An overview of all research activities is shown in Figure 1.1.
Figure 1.1 Overview of Research Study
Researcher reflexivity

Each researcher comes to research with a particular set of lenses based on their life experience, academic background, social location, and personal values. These affect what we choose to research, how we frame research questions, how we conduct research, and what we see and do not see in the course of that research. Reflecting critically on the researcher/self as instrument, or researcher reflexivity, is essential in conducting ethical research (S. Jones, Torres, & Arminio, 2014; Lincoln, Lynham, & Guba, 2011). I chose to conduct this research study in the area of open education after working for many years as an open education practitioner. I worked for several years in the 1990s as a tutor with The Open University in Scotland, teaching modules in information technology (DT200 Introduction to Information Technology: Social and Technological Issues) and women’s studies (U207 Issues in Women’s Studies). Working as a DT200 tutor included an opportunity to teach online using CoSy, one of the early applications of online conferencing systems in higher education (Wilson & Whitelock, 1998). More recently, for the past nine years I have used open educational practices in my learning, teaching, and research: creating and sharing open educational resources (OER), blogging and openly networking, and working with students and staff to explore issues around openness, open education, OER and OEP, digital literacies, digital identity, and privacy.

My choice of research topic arose particularly from these latter experiences. Like many other ‘open educators’ working in higher education, I experienced a tension between my institutional role as a lecturer and academic coordinator of online IT programmes and my experiences learning and teaching on the open web. The two sets of activities and networks overlapped very little. I was aware that other open educators shared similar experiences of dissonance, and also aware of a growing body of research in this area (Hemmi, Bayne, & Land, 2009; Kimmons & Veletsianos, 2014; Stewart, 2015b, 2015a; Veletsianos & Kimmons, 2012a; Weller, 2011b, 2014; Wise & O’Byrne, 2015). I began to wonder about open education more deeply. I wondered why some educators and not others chose to go beyond expected practices and systems for teaching and learning, moving these activities from institutionally-managed systems onto the open web. I wondered why some institutions and not others seemed quick to adopt open education policies and practices. I wondered how open practices worked, and felt, for educators and students across diverse contexts. Studying others’ research would help to answer some of those questions. However, conducting substantive research in this area would not only help to answer such questions but would enable me to contribute meaningfully to effective higher education knowledge, practice and policy in this important and evolving area.
1.3 Research questions

The research study posed four research questions (RQs):

RQ 1. In what ways do academic staff use open educational practices for teaching?

RQ 2. Why do/don’t individual members of academic staff use open educational practices for teaching?

RQ 3. What practices, values and/or motives are shared by academic staff who use open educational practices for teaching (i.e. ‘open educators’), if any?

RQ 4. How do students respond to open educators’ invitations to engage in open educational practices?

Two peer-reviewed papers have been published based on the results of this research study (see Appendices I and II):


1.4 Structure of the thesis

The structure of the thesis is as follows:

- In Chapter 2, I present an overview of open education, including the historical evolution of open education and its relationship to the main theories of learning.

- Chapter 3 is a literature review, exploring the broad context of open education, including networked and participatory culture, and current challenges in higher education. The chapter includes a review of theoretical and empirical studies of open educational practices.

- Chapter 4 introduces the interpretivist/critical epistemological grounding of the study and describes the research design and methodology, including the choice and use of constructivist grounded theory. This chapter also includes a description of the research site and a discussion of research ethics. The chapter concludes with a detailed description of the methods used in each of the two phases of the study and the emergence of the categories of the grounded theory.

- In Chapters 5 and 6, I present the findings of the study. Chapter 5 contains the findings related to the first research question, i.e. the digital and open practices of academic staff, while Chapter 6 presents the findings related to the remaining
three research questions, i.e. the reasons for academics’ choices in relation to OEP, the dimensions shared by open educators, and the perspectives of students when invited to engage in OEP.

- **Chapter 7** discusses the findings of the study, presenting a grounded theory of ‘Using OEP for teaching’ as well as other models developed within the study.
- **Chapter 8** concludes the thesis, considering the quality and limitations of the study and identifying its contribution in terms of knowledge, practice, and policy. The chapter includes suggestions for future research before concluding with final reflections.
Chapter 2. Historical and theoretical underpinnings of open education

Open education is defined broadly as encompassing “resources, tools and practices that employ a framework of open sharing to improve educational access and effectiveness worldwide” (Open Education Consortium, n.d., para. 6). Open education in practice, however, often means subtly or substantially different things to different people. The meanings of ‘open’ and ‘open education’ have continually evolved, reflecting trends in educational, social, cultural, economic, and political contexts, as well as in emerging technologies. Since the focus of this study is the use of open educational practices in higher education, this chapter will explore in some detail the historical development of open education, particularly with respect to higher education, and the theoretical underpinnings of the concept.

2.1 Open education: an overview

Education is a fundamental human right, globally recognised as a foundation for peace, human dignity, social inclusion, and environmental protection (UNESCO, 2000, 2015, 2016). Universal access to education was included in the Universal Declaration of Human Rights in 1948, and in successive policies and initiatives of the United Nations including the Millennium Development Goals and the more recent Sustainable Development Goals (SDGs). ‘Quality education’ and 16 other SDGs were adopted by the 194 countries of the United Nations General Assembly in 2015 (United Nations, 2015). Multiple constraints and restrictions limit access to and engagement with this fundamental human right for many individuals and groups in different contexts. Restrictions may include physical circumstances, geographic remoteness, financial constraints, technological barriers (e.g. the ‘digital divide’ (Lane, 2009)), and/or prior achievement barriers. In addition, cultural, social, and/or individual norms may act as barriers for particular individuals or groups (Blessinger & Bliss, 2016; C. Brown & Czerniewicz, 2010; Lane, 2009, 2016). This is especially the case for post-secondary or higher education, which is the focus of this study.

Although the overall aim of open education is to improve educational access and effectiveness, open education initiatives vary considerably in scope and intention. A useful framework for considering the scope of OE initiatives was proposed by Lane (2016), who suggests that open education initiatives can be considered in two broad forms. The first seeks to transform or empower individuals and groups within existing
structures, e.g. by removing specific prior qualifications requirements, eliminating distance and time constraints, eliminating or reducing costs, and/or improving access overall. A second form of open education seeks to transform the structures themselves, and the relationships between the main actors (learners, teachers, and educational institutions), in order to achieve equity.

Current forms of open education draw on a long history of social, political, and education movements seeking to widen access to education and reduce inequality. While there exists a history of ‘open education’, its roots can be found also in histories of higher, adult, distance, and online education. I aim here to describe some major milestones, transition points, and key ideas in the broad history of open education.

2.2 Early history of open education

Some educators and historians have traced the roots of open education back to the earliest forms of higher education. The rise of monastic and then cathedral schools in the Middle Ages constituted the early roots of higher education in Europe (Jaeger, 2000; Kittler, 2004; Peter & Deimann, 2013). Out of the cathedral schools grew what we know today as institutions of higher education. The first universities – Bologna (founded 1088), Oxford (emerging from 1096), Salamanca (founded 1134), Paris (emerging from 1150, chartered 1200), and Cambridge (founded 1209) – had mostly fixed locations and physical libraries of Latin manuscripts (Kittler, 2004). Yet for these earliest universities, the word ‘university’ referred not to an institution but to a group of scholars and students: “students, interested in the pursuit of knowledge, gravitated to the community within their urban centre” (Siemens & Matheos, 2010, p. 5). Curricula were largely shaped by students and could thus be described as ‘open’, being learner driven, free, and open to all (Peter & Deimann, 2013) – although in practice, open predominantly to affluent white men. By the late 1500s, higher education became more formalised, more exclusive, and less open, with fixed locations and fees.

The next wave of open education originated outside the university system. In the 17th and 18th centuries, coffee houses in Oxford, London, and other cities across Great Britain and Europe offered free education in the form of lectures, discussions, pamphlets and books (Beard & Dale, 2010; K. Ellison & Matthews, 2010; Peter & Deimann, 2013). Coffee houses, also known as Penny Universities, expanded education beyond the affluent classes – although, by offering learning “to almost any man for the price of a penny for admission” (Peter & Farrell, 2013, p. 175), they remained predominantly the domain of men (Bakken, 1994). Over time, coffee houses began to adopt more explicit rules regarding membership, becoming more exclusive. By the mid-1800s they had nearly disappeared in the UK, doomed by their “failure to preserve the openness that had made them so successful” (Peter & Farrell, 2013, p.
181), although other factors contributing to their demise were an increasingly efficient postal system and the rise of the Industrial Revolution (Bakken, 1994).

The 19th century saw a plethora of initiatives that sought to ‘open up’ education in different ways. The start of the century saw the founding and rapid growth of Mechanics’ Institutes, “to teach aspects of the sciences to sections of the British working classes” (Shapin & Barnes, 1977, p. 33). The first Mechanics’ Institute was established in Edinburgh, Scotland in 1821 as the School of Arts Edinburgh (later Heriot-Watt University) (“Mechanics’ Institutes,” n.d.). By 1851, there were over 700 such institutes across Great Britain and Ireland, with over 120,000 members; they also spread quickly throughout Canada and the United States (Shapin & Barnes, 1977). Contemporaneous critical accounts indicate that those who partook in open educational opportunities at Mechanics’ Institutes were not limited to the working classes for whom they had been intended:

In view of the audience intended for the Institutes by their advocates in the 1820s, it is of some interest to note that many of the complaints which began to be heard as early as the 1830s, rising to a crescendo in the early 1850s, charged that the Mechanics’ Institutes were no longer serving ‘mechanics’. They were, it was widely said, becoming increasingly petty-bourgeois in character; shop-keepers and clerks were said to be replacing artisans and mechanics. In the present state of historical research it is unproven whether the great majority of the Institutes ever, in fact, reached the type of audience which their founders desired. (Shapin & Barnes, 1977, pp. 34–35)

Such accounts have fascinating parallels with present-day MOOC research showing that the majority of those enrolled in MOOCs already possess graduate or postgraduate degrees – despite many MOOC creators’ intentions of widening access to learners currently under-represented in higher education (Christensen et al., 2013; Dillahunt, Wang, & Teasley, 2014; Hansen & Reich, 2015; Weller, 2014).

Throughout the 19th century, many initiatives similar to Mechanics’ Institutes emerged throughout Britain, Canada, and the United States, aiming to provide education for skilled workers without formal education qualifications. These included Farmers’ Institutes (USA and Canada), Working Men’s Institutes2 (USA), Mine Workers’ or Miners’ Institutes3 (UK), and Workingmen’s or Workmen’s Institutes4 (UK) (Peter &

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1 The first of two Galway Mechanics’ Institute was founded in 1826. “The first Irish institute was established in Dublin in 1824, only a year after the London institute had opened. It was followed in rapid succession by foundations in Belfast, Cork, Limerick, Waterford, Armagh and Ennis in 1825 and in Galway a year later. Between 1824 and 1860 at least thirty-one Irish towns could boast of an institution, however short-lived, that bore the name ‘Mechanics’ Institute’, and the country supported a wide variety of amateur science societies and adult education initiatives.” (Neswald, 2006, p. 504)

2 Working Men’s Institutes: http://workingmensinstitute.org/

3 Miners’ Institutes: https://en.wikipedia.org/wiki/Miners%27_institute

4 Workmen’s Institutes were called “the miners’ Universities” (Rose, 2001).
Deimann, 2013; J. Rose, 2001; Selman & Dampier, 1991; Shapin & Barnes, 1977; Taylor, 1897). In addition to these institutes focused on providing education to workers, other initiatives sought to widen access to education for adults on a broader scale. The Lyceum Movement in the USA, for example, was formed to provide topical, practical, and theoretical knowledge to the public, with opportunities for discussion and debate (Cayton, 1987), advancing adult education, public education, and even teacher education (Spearman, 2009). Later in the 19th century, the lyceums were replaced by Young Men’s Societies and Young Men’s Mercantile Libraries as part of the so-called self-culture movement (Cayton, 1987; Scott 1980). As many of these names suggest, most of these initiatives were aimed primarily at men, specifically white men “of British ancestry” (Spearman, 2009, p. 215). They widened access to education by class and region, but not by gender or race. As a “counterpart to organisations by men and for men” (E. Smith & Norlen, 1994, p. 32), the first Women’s Institute (WI) was set up in Canada in 1897. Initially, Women’s Institutes offered home economics education only. The WI grew quickly, however, spreading throughout Canada and Great Britain, offering a wide range of educational opportunities and opportunities to women to learn new skills.

Also during the 19th century, access to universities began to widen. In 1858, the University of London created the ‘External System’ which decoupled examinations from study, allowing students from around the world to participate in courses. The External System has been called the first ‘open university’: “it pre-empted 20th century developments in open, flexible and distance learning by more than 100 years” (University of London, 2016).

During the 20th century, openness as an ideal became more prevalent with increasing numbers of advocates for access and rights to knowledge. Open education initiatives focused variously on three things: universal access to education, changing the relationship between learners and teachers, and empowerment of learners.

### 2.3 Recent history of open education

The growing impetus for open education in the 1960s and 1970s reflected the educational mindset and wider political movements of that time, e.g. advocating for human rights, decolonisation, and social justice (Hayes & Jandrić, 2014; International Commission on the Development of Education, 1972; Schofer & Meyer, 2005; Siemens & Matheos, 2010). Open education initiatives that emerged during this period were often conceived as ‘reform projects’ with the aim of liberating education from all forms of oppression (Deimann & Sloep, 2013; Lane, 2009). Publications by Ivan Illich, Paulo Freire, and the United Nations offer a window into the rationale for liberatory education at this time.
In 1971, Illich published *Deschooling Society*, highlighting strong links between the institutionalisation of education and the institutionalisation of society (Illich, 1996):

> During the sixties institutions born in different decades since the French Revolution simultaneously reached old age; public school systems founded in the time of Jefferson or of Atatürk, along with others which started after World War II, all became bureaucratic, self-justifying, and manipulative. (Section 61, para. 3)

Illich proposed a radical new concept called ‘learning webs’ to replace compulsory education: “What are needed are new networks, readily available to the public and designed to spread equal opportunity for learning and teaching” (S. Brown, 2010; Illich, 1996). Of particular interest in Illich’s vision, he foresaw that the “roles of learners and teacher would not be fixed and learning would be far more collaborative, distributed and personalised than either then or now” (S. Brown, 2010, p. 7). Without using the term ‘open education’, Illich (1996) characterised the tenets of open education in his radical prescription for change:

> A good educational system should have three purposes: it should provide all who want to learn with access to available resources at any time in their lives; empower all who want to share what they know to find those who want to learn it from them; and, finally, furnish all who want to present an issue to the public with the opportunity to make their challenge known.

In the same period, Freire in *Pedagogy of the Oppressed* (1996, originally published in 1970) described a liberatory method of education. Using the metaphor of the ‘banking approach’ to describe traditional education, Freire criticised the conception and related power dynamics of knowledge as a gift, “bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing” (1996, p. 72). Freire claimed that this approach dehumanises both students and teachers. Instead, Freire (1996) focused on dialogue and respect between and among learners and teachers:

> Only through communication can human life hold meaning… If it is true that thought has meaning only when generated by action upon the world, the subordination of students to teachers becomes impossible. (p. 58)

Freire’s radical theory conceived of all education as political, thus requiring critical pedagogy to achieve liberation.

The 1972 UNESCO report, *Learning to Be*, aimed to commit society to education through a focus on ‘lifelong learning’ and the notion of ‘the education society’, with learning distributed in both time and space (International Commission on the Development of Education, 1972). In a seminal essay in 1975, James Macdonald specifically connected open education to wider social changes:

> I believe that open education is part and parcel of the social spirit and impulse for liberation that is reflected in such diverse phenomena as the counterculture’s attempt to escape the dehumanising and alienating role structure of our society. (1975, p. 53)
The 1960s and 1970s also constituted a period of rapid expansion and increases in enrolment in higher education (Schofer & Meyer, 2005). Universities became sites for broader debates about social and educational inequality. Keegan (1990) claimed, for example, that the open education movement in Europe in the mid-1960s (e.g. at the University of Paris) was one of the contributors to the revolution in 1968 and subsequent modifications of much university teaching, especially in France.

In the UK in the 1960s, the most notable implementation of open education in higher education was the establishment of The Open University (OU) in 1969. Upon receiving the Royal Charter of the OU in 1969, the first Chancellor, Lord Geoffrey Crowther declared that the university would be:

...open, not only as to entry, but as to place (no campus), as to method (the use of any communication medium that promoted its educational purposes) and as to ideas (in that it would be concerned not only with necessary skills and experience, but with all that human understanding can encompass). (MacKenzie, Postgate, & Scupham, 1975, p. 16)

These values continue to the present day in the mission of The Open University (2017):

...to be open to people, places, methods and ideas. We promote educational opportunity and social justice by providing high-quality university education to all who wish to realise their ambitions and fulfil their potential.

Open universities were established in Canada in 1970 (Athabasca University) and in Germany in 1974, and similar initiatives for open education arose in the USA, including the University Without Walls at the University of Massachusetts, established in 1971 (Mai, 1978). Arguably a forerunner of all of these was the University of South Africa (UNISA) which became the first university in the world to offer open distance education in 1946 (UNISA, n.d.). Today over sixty universities across six continents define themselves as open universities, i.e. with open-door academic policies (“List of open universities,” n.d.).

Along with this focus on open education, also prevalent in this period (1960s to 1980s) was a growing focus on open learning. The term was used to refer to learning situations in which learners had flexibility to choose the time, place, methods, and access modes of learning (Caliskan, 2012). The aims of open learning were to increase democratisation of higher education in terms of respect for individual differences and equal opportunity (Moisey, 1984) and to provide easier access to education, personal freedom, and social equality (Deimann & Sloep, 2013). Convergence of ‘open learning’ and ‘distance learning’ gradually resulted in use of a combined term, ‘open and distance learning’ (ODL). In 1987, Hodgson, Mann and Snell published Beyond distance teaching: Towards open learning, incorporating ideas from Illich and Freire in a revitalised conception of open learning (Keegan, 1990):

Education is not neutral. Its purpose can be either to domesticate or to liberate. Education domesticates where knowledge is given to or deposited into learners, where
the relationship between educator and learner is that of subject to object. (section 3, para. 3)

The 1990s marked a time of transformation in the open education movement, as well as a change in focus. The ideals and objectives of open learning and open education continued. Lewis (1997), for example, asserted that increased flexibility and learner choice should apply equally to access to education, curriculum content, place and time of study, nature of assessment and feedback, and availability of progression routes. However, the affordances of the new digital technologies enabled new forms of flexibility, access, and openness. One of the earliest examples of this new wave of developments was the concept of ‘learning objects’.

**Learning objects**

While the idea of reusing digital educational resources is almost as old as the computer itself (Wiley, 2008), what we know today as open educational resources (OER) arose out of earlier work in computer science. In the early 1980s, Ted Nelson (who coined the term ‘hypertext’) developed the conceptual foundations of learning objects, incorporating the ability to ‘fork’ content, i.e. to make changes to any piece of content but to store both versions separately (Finley, 2012; Wiley, 2008). This functionality was instantiated in Project Xanadu (Nelson, 1982), Connexions (Baraniuk, 2008; Wiley, 2008), and more recently Federated Wiki and Wikity (Caulfield, 2014; Finley, 2012).

With the emergence of the ‘World Wide Web’ in the early 1990s, there was a resurgence of interest in reusable educational materials. In an educational context, the term *learning object* was first used in 1994 by Wayne Hodgins. Explicitly borrowing the concept from computer science, Hodgins used it to describe a learning artefact that had potential for reuse (Moe, 2015a). Learning objects, as defined by Hodgins, could range in granularity from a discrete media element to an entire course, with the smallest objects being “the most reusable and most context independent” (Hodgkinson-Williams, 2014, p. 4). In 1999, Richard Baraniuk started a learning objects initiative at Rice University which became Connexions (Baraniuk, 2008). The goals were:

…to convey the interconnected nature of knowledge across disciplines, courses, and curricula, and to move away from a solitary authoring, publishing, and learning process to one based on connecting people into global learning communities that share knowledge. (p. 232, emphasis in original)

The Connexions project (now OpenStax CNX5) marked an important turning point in open education. A new focal point became seeking to change traditional models of

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5 OpenStax CNX: https://cnx.org/
Chapter 2. Historical and theoretical underpinnings of open education

authorship, peer review, and teaching – with the aim of contributing to the democratisation of knowledge.

Learning objects had a short and turbulent history, however. A significant hindrance was the inherent incongruity in the term, with ‘object’ a specific technological paradigm and ‘learning’ a more general concept (Friesen, 2004). To address this concern, some advocated a greater synthesis of software engineering and pedagogical principles by focusing on reuse and repurposing (Boyle, 2003; Polsani, 2003). This led to the more precise definition of a reusable learning object or RLO as “an independent and self-standing unit of learning content that is predisposed to reuse in multiple instructional contexts” (Polsani, 2003, section 2.2, para. 4). However, the confusion persisted. McGreal (2004) noted the enormous diversity of definitions of learning objects, ranging from “anything and everything, through anything digital, to only objects that have an ostensible learning purpose, to those that support learning only in a particular or specific context” (para. 13). Although a major leap forward in conceptualising learning content, learning objects did not achieve widespread usage due to inherent confusion in the terminology, the wide divergence in definitions and use of the term, and lack of clarity about licensing (Friesen, 2004; Polsani, 2003; Wiley, 2008). An important evolution emerged during the course of this debate, however. Whether something counts as a learning object came to be seen not as dependent on its nature; rather, as advocated by Stephen Downes, it should be determined by its use (McGreal, 2004).

Open content and OER

In the early years of the 21st century, developments in open education accelerated with the open content movement, characterised by Moe (2015) as “the open source movement in computer software... picked up by learning object creators, educators, and early pioneers of the internet” (p. 352). The open source movement, emerging from Richard Stallman’s free software movement of the 1980s and 1990s, established the concept of open licenses to preserve legal ownership of software while permitting users to freely run, modify, and redistribute the software as they wished (Bretthauer, 2001; Caswell, Henson, Jensen, & Wiley, 2008). Most works are protected by copyright law (an exception to this is public domain content for which intellectual property rights have been waived, forfeited, or are not applicable (“Public domain,” 2017)). The creators of open licenses knew that copyright law prevents such adaptation without the express permission of the creator. Creative Commons (CC), established by Laurence Lessig in 2001, created a legal framework for clarifying the permissions of reuse of learning resources. CC licenses were modelled after free and open source software (FOSS) licenses, namely the Free Software Foundations GNU General Public License (Creative Commons, n.d., para. 2).
In 2001, MIT launched its OpenCourseWare (OCW) initiative, with the aim of publishing materials from all of its courses online on the open web. The initiative quickly expanded from MIT to other institutions, leading to the formation of the OpenCourseWare Consortium (renamed the Open Education Consortium in 2014) (MIT OpenCourseWare, n.d.). In 2002, UNESCO convened a forum on the Impact of Open Courseware for Higher Education in Developing Countries, sponsored by The William and Flora Hewlett Foundation (UNESCO, 2002). At the forum, the term open educational resources (OER) was coined (Adams, Liyanagunawardena, Rassool, & Williams, 2013; Wiley, 2007). The original ambition of OER was to formalise and legitimise the process of sharing resources by and among academic staff and institutions (UNESCO, 2002):

Open Educational Resources are defined as “technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes”. They are typically made freely available over the Web or the Internet. Their principal use is by teachers and educational institutions to support course development, but they can also be used directly by students. Open Educational Resources include learning objects such as lecture material, references and readings, simulations, experiments and demonstrations, as well as syllabi, curricula and teachers’ guides. (para. 3, emphasis added)

Formal definition of OER resolved a final weakness in the growth of the learning object concept by addressing the issue of licensing. The distinction between OER and their previous incarnation, learning objects, was succinctly captured by Winn (2012): OER are “less formally identified in terms of their composition and adherence to technological standards, yet more formally identified through the application of Creative Commons or other permissive licenses” (p. 136). The capabilities of open licensing, originally defined as the 4Rs by David Wiley (2010), were expanded to 5Rs (Wiley, Bliss, & McEwen, 2014):

- Reuse (right to reuse the content in its unaltered form)
- Revise (right to adapt or alter the content)
- Remix (right to combine the original or revised content with other content)
- Redistribute (right to make and share copies, revisions, or your remixes)
- Retain (right to retain a version of the resource)

Openness in OER is thus focused on freedoms, but the degrees of freedom available within a particular license can vary, thus the level of openness varies (Lane, 2009; Losh, 2014). The definition of OER has broadened since it was first coined in 2002, with the focus no longer on teachers and institutions as the primary creators and users, but on all – educators and learners – as potential creators and users (Wiley, 2007). OER are now defined as:

teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-
purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge (Hewlett Foundation, n.d.).

Five years after OER were defined, an international gathering of open educators met in Cape Town to deepen and accelerate efforts to promote the use of open educational resources, producing the Cape Town Open Education Declaration (“Cape Town Open Education Declaration,” 2007). The declaration had three main strategies: (i) further creation, use and distribution of OER; (ii) changes in policy to support open, participatory culture; and (iii) changes in the relationship between teachers and learners, in support of open educational practices (Winn, 2012). Five years later, with the OER movement one decade old, UNESCO and Commonwealth of Learning (COL) produced the 2012 Paris OER Declaration, specifically referencing article 26.1 of the United Nations Universal Declaration of Human Rights: “everyone has the right to education.” The Declaration also called on governments worldwide to openly license publicly funded educational materials for public use. Examples of government-funded OER initiatives include those developed by the Joint Information Systems Committee (Jisc⁶) and the Higher Education Academy (UK), the #GoOpen initiative⁷ (US), and BCcampus⁸ (Canada), among others.

As OER developments progressed, OER initiatives multiplied to facilitate the sharing and use of OER, e.g. Jorum (UK), Open Learn (Open University, UK), MERLOT (Multimedia Educational Resources for Learning and Online Teaching, USA), SOL*R (Shareable Online Learning Resources, Canada), OER Commons, and, in Ireland, the NDLR (National Digital Learning Repository).

The Irish NDLR began as a pilot project in 2005 and ran for seven years (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a). NDLR was an HEA⁹-funded service, promoting and supporting the creation and sharing of digital resources for learning and teaching amongst the academic community in Ireland (McAvinia & Maguire, 2011). Twenty-one higher education institutions in Ireland participated in the NDLR project. Although initially closed to users outside the Irish HE sector through the use of institutional licenses and institutional user agreements (Andrade et al., 2011; OPAL, 2010), the NDLR migrated to open access via the use of Creative Commons licenses in its latter years (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a). The NDLR used an innovative approach of creating subject network ‘communities of practice’ to

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⁶ Jisc: https://www.jisc.ac.uk/
⁷ #GoOpen, Office of Educational Technology, Department of Education: https://tech.ed.gov/open/
⁸ BCcampus: https://bccampus.ca/
⁹ Higher Education Authority (HEA): http://hea.ie/
coordinate the development, and encourage the use of, OER (Marcus-Quinn & Diggins, 2013; McAvinia & Maguire, 2011). However, like other OER initiatives, evaluations over the course of the lifetime of the NDLR found a mixed response from academics in terms of both contributing and using resources (Dundon, Exton, & Diggins, 2012; National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a). The NDLR ceased to operate in 2012.

Open access

Open access (OA) has broad similarities to OER, but defines access to scholarly publications rather than to learning and teaching resources. The first formal OA declaration was issued in 2002 in the Budapest Open Access Initiative (BOAI) 10, where the concept of OA was understood in terms of “open access to peer-reviewed journal literature”:

...free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited. (para. 3)

A more recent and comprehensive definition is provided by Suber (2012): “Open access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions” (p. 4). A common misconception about open access is that copyright is lost or given away, when the opposite is the case (Czerniewicz & Goodier, 2014). As with OER, open access of scholarly literature is enabled through the use of open licenses. Copyright is retained by the owner, who specifies permitted uses of the resource by choosing the terms of the license.

The value proposition of open access is clear: researchers and universities benefit from increased citations, the research process benefits from greater transparency and efficiency, and the public benefits from access to historical and current scholarly research – much of which is, in fact, publicly-funded (Corrall & Pinfield, 2014; Czerniewicz & Goodier, 2014; Look & Marsh, 2012; Suber, 2012). Despite these advantages, complexities abound. Suber (2012) notes four types of barriers that remain, for example, even when price and permission barriers have been removed, i.e. censorship, language, access by people with disabilities, and lack of connectivity (Pomerantz & Peek, 2016). OA challenges for institutions include resource requirements for establishing repositories, developing the necessary expertise, understanding and managing access agreements with scholarly publishers, developing

10 Budapest Open Access Initiative: http://www.budapestopenaccessinitiative.org/
metadata mechanisms and agreements, and establishing linkages between research and learning resources (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a).

**MOOCs**

Following developments in OER and OA, and the rise of social and participatory technologies in the mid-2000s, another form of open education emerged in 2008: the first *massive open online course* or MOOC. The ‘Connectivism and Connective Knowledge’ (CCK08) MOOC was developed and offered by George Siemens and Stephen Downes. The course taught and put into practice the principles of connectivism (see Section 2.4), i.e. that connections enable us to learn more and are more important than our current state of knowing (Downes, 2007; Siemens, 2005). The course allowed large numbers of learners to collaborate, create new content, and start discussions and debates using open platforms such as forums, blogs, and social networks (Marques & Maguire, 2013). CCK08 and other early MOOCs (e.g. EC&I 83111, DS10612) experimented with this new model of open education. These initial connectivist MOOCs challenging existing models of higher education as well as existing forms of open education (McAuley, Stewart, Siemens, & Cormier, 2010):

A MOOC is a significant departure from the cliché “ivory towers” of traditional brick and mortar universities, the “walled gardens” of conventional learning management systems, and even the widely publicized “open courseware” of MIT. Each of these reifies the artifacts of knowledge work (a course, a lecture, a syllabus) within the particular technology that defines it. MOOCs, on the other hand, share the processes of knowledge work, not just the products. Facilitators model and display sensemaking and wayfinding in their disciplines… A MOOC juxtaposes epistemology with ontology: “the medium is the message,” as McLuhan would say. (p. 40)

The number of participants in early MOOCs exceeded the number of students participating in typical modules on such topics (run on a traditional basis, online and on campus) at that time, e.g. 2200 people signed up for CCK08 (Marques, 2013). ‘M’ indeed stood for ‘massive’. However, no one was prepared for the truly massive number of people that enrolled in ‘Introduction to Artificial Intelligence’, an open online course offered by Sebastian Thrun and Peter Norvig of Stanford University in autumn 2011. More than 160,000 people in 190 countries signed up for the course (Marques, 2013). Two other open online courses offered by other Stanford faculty in the same term also attracted thousands of students. All three courses soon were called ‘MOOCs’ in the popular press, and 2012 was dubbed “the year of the MOOC” (Pappano, 2012). The MOOC phenomenon was in full swing.

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11 EC&I 831 Social Media and Open Education course, University of Regina: http://eci831.ca/hub/
12 DS106 Digital Storytelling, Mary Washington University: http://ds106.us/
Open education advocates vigorously challenged the designation of the Stanford courses as MOOCs (Marques, 2013; Moss, 2013; Watters, 2012; Yuan & Powell, 2013). However, the name stuck. The Stanford MOOCs were offered freely for anyone to participate, without a fee, but the course resources were not openly licensed. Thus, the courses were not ‘open’ according to accepted OER definitions. A fraught period of debate ensued while other universities joined the MOOC bandwagon and the originators of the Stanford MOOCs formed companies to further their efforts; Thrun and Norvig founded Udacity, Daphne Koller founded Coursera. Other universities soon offered MOOCs also, e.g. Harvard and MIT collaborated to found MOOC platform edX, and the Open University in the UK started FutureLearn. Thus, between 2008 and 2012, the term ‘MOOC’ evolved from a description of a handful of online courses designed and organised by connectivist educators, to a widely contested acronym and focal point for narratives of disruption, opportunity, and the future of higher education (Siemens & Matheos, 2010; Watters, 2012; Weller & Anderson, 2013; Wiley & Hilton III, 2009). Beyond the hype, MOOCs can be viewed as simply another development in the evolution of online, distance, and open education. MOOCs continue to be developed and offered by individuals, universities, and MOOC platforms globally. However, the single term ‘MOOC’ masks significant differences between different open online courses in definitions of openness, pedagogy, assumptions about learners, and level of integration with other higher education functions – including certification (Moss, 2013; Veletsianos & Kimmons, 2012a). Such assumptions, objectives and values determine the design and implementation of MOOCs and other open online education initiatives, and can thus inform comparisons between them.

2.4 Theories of learning

The foundational assumptions of OER, MOOCs, and other forms of open education are not new. The original ‘cMOOCs’ embodied connectivist pedagogies, while institutional ‘xMOOC’ offerings encompass a range of pedagogies including cognitive/behavioural, social constructivist, and connectivist (Anderson & Dron, 2010; Bayne & Ross, 2014; Miyazoe & Anderson, 2013; Moe, 2015b). A review of the differences between these various theories of learning is useful before going on to explore open educational practices (OEP), as we shall in Chapter 3. While a plethora of theories and philosophies of learning exist, two broad branches are based on different ontological and epistemological beliefs: cognitive/behaviourist and constructivist.

Cognitive and behaviourist theories of learning are based on a positivist epistemology and therefore assume the existence of objective truth, i.e. that knowledge exists ‘out there’ (Conole & Oliver, 2006). Learning is seen as a process of knowledge acquisition. Behaviourist approaches to teaching and learning tend to focus on transmission of information (from teacher to learner), with the goal of content mastery by the learner.
Cognitive theories, reacting to behaviourist assumptions that all learners are alike, focused on the motivation and attitude of learners (Anderson & Dron, 2010) and used information processing perspectives to inform instructional design (Panke & Seufert, 2013). Many contend that cognitive/behaviourist, instructionist/instructivist approaches persist in higher education, evidenced by a focus on learning outcomes, marking systems, and a lack of learner control (Bates, 2015a; Downes, 2016; Weller, 2011a).

Constructivist learning theories, on the other hand, are based on a subjectivist/antipositivist paradigm, which assumes that reality can never be fully known. Individuals interpret and construct their understanding(s) of the world, often in interaction with others. Because knowledge is viewed as decentralised and emergent, learning is a process of knowledge (co-)construction. Constructivist theories of learning emphasise the importance of learners being actively involved in the learning process (Conole & Oliver, 2006; John-Steiner & Mahn, 1996; McLoughlin & Lee, 2010; Warschauer, 1997). The first theories of constructivism, known as cognitive constructivism, were based on Piaget’s ‘stages of cognitive development’ (Zhou & Brown, 2015) and Dewey’s experiential learning theory (“Experiential learning,” n.d.; Zhou & Brown, 2015). Papert (1991) further developed Piaget’s theories in his related theory of constructionism, in which the learner is “consciously engaged in constructing a public entity, whether it’s a sand castle on a beach or a theory of the universe” (p. 1). Learning approaches such as problem-based learning fall under the umbrella of constructionism (Ackermann, 2001; Bates, 2015a).

Social constructivist and sociocultural theories of learning are learner-centred also, but view learning as a situated and social activity (Conole & Oliver, 2006; John-Steiner & Mahn, 1996; Panke & Seufert, 2013; Warschauer, 1997). The focus is on learning as a process of active discovery and the construction of knowledge in a social and cultural context. Social constructivism draws on Vygotsky’s (1978) sociocultural theory, rejecting the assumption that learning can be considered separate from its social context. The locus of control in social constructivist pedagogies shifts from the teacher to the learner, with the teacher adopting the role of guide or facilitator of learning (Dron & Anderson, 2014).

These major theories of learning are largely based on assumptions of students being taught by teachers. As such, arguments have been put forward that these foundational theories of learning “do not provide an adequate framework for us to think and act in the digitally saturated and connected world in which we live” (Bell, 2010, p. 100). New theories of learning may be required to help further describe and explain learning in a connected age (Bell, 2010; Castells, 2010; C. Jones, 2004). Connectivism is one such example. Connectivism, a philosophy/theory extends the notion of learner autonomy and contends that learning is a process of building network connections (Siemens,
While connectivism shares some precepts with earlier theories such as social constructivism, it differs in one key aspect (Downes, 2007):

...in connectivism, there is no real concept of transferring knowledge, making knowledge, or building knowledge. Rather, the activities we undertake when we conduct practices in order to learn are more like growing or developing ourselves and our society in certain (connected) ways. (para. 6)

All learning artefacts, according to connectivist principles, should be open, accessible and persistent.

This short summary of learning theories: cognitive, behavioural, constructionist, constructivist, and connectivist, is not a conclusive summary of all theories of learning. However, it describes many of the underlying philosophies and assumptions present in various forms of open education, and thus is useful to establish before going on to consider more specific forms, issues, and challenges of open education in the following chapters.

**Conclusion**

An abiding theme within most descriptions of open education, and indeed throughout the evolution of open education over the past fifty years, has been the challenge in defining the concept. Even at its earliest stages, the definition of open education was broad and difficult to pin down. In reviews of the literature in the 1970s, open education was defined as student choice of activity, richness of learning materials, curriculum integration, and flexibility of space (Horwitz, 1979), as well as conceiving the teacher as a facilitator of learning, and development of student responsibility for learning (H. Marshall, 1981). In the 1990s and beyond, learning objects were defined by some as “anything and everything”, and by others as only those resources specifically designed to support learning (McGreal, 2004). Since 2011, ‘MOOC’ has been used to refer to specifically connectivist projects (cMOOCs), as well as to online courses offered by universities and for-profit providers, often without any openly-licensed content (xMOOCs) (Kennedy, 2014). With the exception of the definition of OER (UNESCO, 2002), open education definitions are diverse and often contested. An observation by Noddings and Enright (1983), made 35 years ago, 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. (p. 183)

While intangible, the ethos of openness often has been the aspect which open educators most readily describe. Openness has been referred to as “a way of being” (Mackness, 2013; Neylon, 2013) and even as “a political act” (Cormier, 2013). Mackness (2013), for example, differentiates “what you do” in creating open courses and resources from
“who you are” when choosing to work openly, while Neylon (2013) highlights the difference between making resources open and embracing the humility of “being open”. Campbell (2012) captured this difference by explicitly using open as a verb rather than an adjective: opening education as opposed to open education. Openness in education often bears the burden of describing not just policy, access, resources, curricula and pedagogy, but the values expressed within these, and the relationships between teachers and learners:

…‘open’ has many meanings, and the aura of most of them seemed generous and ‘charismatic’: open-handed, open-ended, open-hearted, open house, open choice. ‘Open’ as contrasted with ‘closed’ carried suggestions of the lessening or removal of restrictions, of exclusions and of privilege; of demolishing or lowering established barriers between subject areas; of enlarging and enriching the areas of activity and experience graded as educational. It symbolized a shift in the relationship between teacher and pupil towards that of student and adviser. (MacKenzie et al., 1975, p. 15)

So, is open education a slogan or a philosophy, a metaphor or a model? Noddings and Enright (1983) explored precisely this point, asserting the need to “resist the evangelical mode” (p. 188) in favour of the historical and critical. This is the approach taken in this research study.

With the historical and theoretical underpinnings of open education established in this chapter, Chapter 3 goes on to describe the current context of open education and higher education before critically exploring the conceptualisation of open educational practices (OEP).
Chapter 3. Higher education, open education, and open educational practices

In this chapter, I critically review relevant literature to show how my study is located within the current body of knowledge regarding open education. The chapter begins by considering the broad sociotechnical context within which higher education and open education operate. Key challenges currently being faced by higher education institutions (HEIs) are described, and open practices and policies are considered within this context. The chapter concludes with a thorough survey and critique of the literature related to OEP, identifying assumptions, gaps, and key themes.

3.1 Broad context: Networked and participatory culture

The context in which higher education operates has changed dramatically over the past 25 years. This rapidly changing sociotechnical context is characterised by ubiquitous connectivity, a shift from knowledge scarcity to knowledge abundance, and a move from hierarchical toward more networked forms of social organisation. Widespread use of digital and networked technologies has changed how we find information, communicate with one another, express ourselves, make and sustain relationships, collaborate, work, play, and engage as citizens (Ito et al., 2012; Jenkins et al., 2009; Kumpulainen & Sefton-Green, 2012; Veletsianos & Kimmons, 2012b, 2013). Two paradigms used widely to describe these changes and their implications are the network society and participatory culture.

The concept of an emerging network society was originally described by Manuel Castells (2010) in the late 1990s. Castells, observing that networked forms of social organisation were becoming more prevalent than hierarchies, concluded that networks constituted the new “social morphology” (2010, p. 5). A related concept, networked individualism, proposed by Wellman (2002) offered a framework for understanding social life in the network society. Combining Wellman’s theoretical work with data from the Pew Research Centre’s Internet and American Life project, Rainie and Wellman (2012) further developed the theory of networked individualism, accounting for the fact that people increasingly operate in larger and looser networks, and thus new information and communication ecologies (C. Jones, 2015a; Rainie & Wellman, 2012).

The concept of the network – as model and metaphor – is both potent and flexible in describing changes in society, learning, and education. The theory of networked individualism, in particular, has been widely used in empirical research in recent years,
particularly in research on online communities, social networking, and networked learning (Haythornthwaite, 2000; C. Jones, 2012; C. Jones, Ferreday, & Hodgson, 2008; Ryberg & Larsen, 2008; Wood, 2014). While prevalent in the literature, however, use of the concept is not without critique. Networked individualism has been criticised by Jenkins as paradoxical and oxymoronic, and by boyd as narcissistic and emblematic of privilege (Jenkins, Ito, & boyd, 2015). In general, critiques of networked explanations of social behaviour assert that social life simply cannot be adequately explained by the concepts of social ties and social capital (Jenkins et al., 2015; Mejias, 2011, 2012; Wood, 2014). Mejias (2011), for example, argues that networks are not just metaphors, but now actively organise and shape our social reality, simultaneously increasing inequality. Thus, criticality about networks is essential:

…it is only the outsides of the network where we can unthink or disidentify from the network, from the mainstream. If universities are part of the mainstream, they could still help us remain critical about the application of digital networks in the learning process. (Mejias, 2011, p. 49)

Likewise, Wood (2014) maintains that: “We do not need to deny that it might be a good thing for individuals to develop personal networks in order to sustain this critique” (p. 35). The main issue with networked individualism may be its expression as a fundamental truth, overlooking alternative ways of knowing and being.

In a separate theorisation of networked culture, Jenkins and the New Media Literacies team at MIT developed a white paper in 2009 that used the concept participatory culture to describe the social skills and cultural competencies that young people needed to acquire in an increasingly networked society:

A participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing creations, and some type of informal mentorship whereby experienced participants pass along knowledge to novices... members also believe their contributions matter and feel some degree of social connection with one another. (Jenkins et al., 2009, p. xi)

This work has been highly influential in research across many fields including sociology, literacy studies, emerging technologies, social media, and education (Conole, 2015; Greenhow & Robelia, 2009; Knobel & Lankshear, 2007; Rheingold, 2012; Siemens, 2012; Stewart, 2013a, 2015a). The concept has been expanded upon by Jenkins, et al. (2015) and others. Moving on from the original formulation, participatory culture is now considered relevant to all, not just young people. And where Jenkins, et al. (2009) explored the concept in the context of media creation, coding, and writing fan fiction, later research has applied the concept of participatory culture more widely, focusing on how individuals and groups impact on shared culture. Coleman (2012) suggests that the terms of networked engagement are both subtler and more profound than simple ‘participation’ suggests. Participation also includes
interacting, listening, and even simply being present in networks, an acknowledgement of Lave and Wenger’s (1991) ‘legitimate peripheral participation’.

In their follow-up work, Jenkins, et al. (2015) explored participatory culture from an educational standpoint, considering its relevance to learning and literacy. Learning, after all, is an act of participation in communities of shared culture and practice. Ito, et al. (2012) contend that most formal education settings, including higher education, are not successful in meeting learners where they are and inviting different contributions. Jenkins, Ito and boyd (2015) together advocate for the literacies of participatory culture to be embedded much more successfully in all forms of formal education. This is not a simple task, however, as participatory culture is not inherently democratising. While the prevailing rhetoric around social media centres on the notion that ‘everyone can have a voice’, technology can as easily exacerbate as reduce inequality (Jenkins et al., 2015; Selwyn & Facer, 2013). All technologies are socially constructed and shaped, and all hierarchies are not flattened. The values embedded in many educational and participatory technologies stem from meritocratic, libertarian, neoliberal beliefs – designed to allow and encourage some behaviours and prevent others (Marwick, 2013; Selwyn & Facer, 2013). Participatory culture cannot be untethered from corporate interests, but development of digital literacies (including network, participation, and data literacies) can promote critical awareness of issues such as corporate interests, algorithmic bias, surveillance, and privacy.

Privacy

In an increasingly open, networked and participatory culture, in which data is persistent, replicable and scalable (boyd, 2010), privacy is a subject of enormous individual and societal importance. The concept of privacy lies at the nexus of multiple disciplines and domains: ethics, philosophy, psychology, anthropology, sociology, law, economics, information studies, computer science and information technology. A precise definition of privacy is elusive; as the network society has evolved, so too has the concept of privacy. Traditional definitions of privacy relied on spatial distinctions (public/private) and on limiting access to and control of information, e.g. the definition of privacy as “the right of people to control what details about their lives stay inside their own houses and what leaks to the outside” (Garfinkel, 2000, p. 4). Not only have the boundaries of our personal spaces evolved beyond the physical, but in networked publics, interactions are often “public by default, private through effort” (boyd, 2014, p. 61).

Recent understandings of privacy have shifted the focus to context. Central among this work is Nissenbaum’s (2004, 2010) framework of contextual integrity. According to Nissenbaum, social activity, occurring in specific contexts, is governed by context-specific norms; among these are informational norms regarding the appropriate flow of
information between parties. Contextual integrity is preserved when informational
d norms are upheld, and violated when they are contravened. Nissenbaum’s framework
of contextual integrity has been developed and built upon by many other researchers
(boyd, 2012; Kirkpatrick, 2010; Lange, 2007; Vaidhyanathan, 2015) and policy makers
(e.g. National Science and Technology Council, 2016). Lange (2007) used the
framework to explore variation within a particular context, i.e. video sharing on
YouTube, proposing the concepts of publicly private (revealing identity but limiting
access to content) and privately public (sharing content but limiting access to identity)
to describe individuals’ nuanced behaviours in relation to privacy. And in her empirical
study of teens’ use of social media, boyd (2012) coined the term social steganography
to describe another variation of privacy behaviour: sharing identity and content, but
limiting access to meaning:

They use pronouns and in-jokes, cultural references and implicit links to unmediated
events to share encoded messages that are for all intents and purposes wholly
inaccessible to outsiders… Only those who are in the know have the necessary
information to look for and interpret the information provided. (p. 349)

Beyond these complex and contextual reconceptualisations of the concept of privacy,
is the extent to which suppression of privacy lies at the heart of the business models of
most digital and social media platforms. The recently theorised concepts of platform
capitalism (Smiljkovic, 2016) and surveillance capitalism (Zuboff, 2015) explore these
new business models, which are built on the appropriation of data and the convergence
of surveillance and profit. This work highlights the importance of understanding issues
related to privacy, surveillance, digital identity, and living, learning, and working in a
network society, i.e. the development of digital literacies.

Digital literacies

Digital literacies form the substructure of all digital practices. Learners, teachers, and
indeed all networked individuals require digital literacies in order to make informed
choices about digital and other tools, to find relevant resources and networks, to create
and share digital artefacts, and to engage with others in order to create meaning and
knowledge (Belshaw, 2012; Bhatt, 2012; Goodfellow & Lea, 2013; Lea & Jones,
2011). Yet digital literacies are by no means an uncontested concept (C. Brown,
Czerniewicz, & Noakes, 2016):

…what remains deeply contested is the form those literacies take, how they play out
in different contexts, which components are privileged and which invisible, under
which conditions certain aspects flourish and why other aspects do not flourish in
certain circumstances. (p. 140)

Several models and frameworks specifically address this complexity by
conceptualising digital literacy/literacies as a sociocultural practice, situated within
specific contexts. Digital literacy is thus considered to be aptness in social practices rather than a set of skills (C. Brown, Czerniewicz, Huang, & Mayisela, 2016).

Building on work by Beetham and Sharpe (2010), Jisc (2014) has defined digital literacies as “those capabilities which fit an individual for living, learning and working in a digital society” (para. 1):

Digital literacy looks beyond functional IT skills to describe a richer set of digital behaviours, practices and identities. What it means to be digitally literate changes over time and across contexts, so digital literacies are essentially a set of academic and professional situated practices supported by diverse and changing technologies. (para. 2, emphasis added)

Specific capabilities in Jisc’s model include ICT proficiency; information, media and data literacy; digital creation, communication and collaboration; digital learning and personal/professional development; and digital identity and wellbeing (Jisc, 2016). Brown, et al. (2016) proposed a similar definition of digital literacies: “People’s ability to live, learn and work in an evolving digitally mediated society by mobilising resources, developing digital identities and critically engaging in networks” (p. 8). This education-focused model outlined three interrelated dimensions of digital literacy – operational, cultural, and critical – with the goal of developing people’s capabilities. These two influential bodies of work (developed in the UK and South Africa, respectively) highlight the multifaceted nature of digital literacies as situated within social, institutional, geographical, and cultural contexts. In addition, in the context of this study in Ireland, the National Forum has developed a resource, Building Digital Capacity in Higher Education, that highlights tensions and challenges with respect to developing digital literacies and digital capacity, while acknowledging local, national, European and global contexts and drawing from research in all of these (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2014). A notable addition to this body of work is a recent summary of the global landscape of digital literacies, published by the NMC Horizon project, highlighting multiple models and approaches (Alexander, Adams Becker, Cummins, & Hall Giesinger, 2017).

The evolution of the conceptualisation of digital literacies continues to expand with recent work in the related areas of digital citizenship (Almekinder et al., 2017; Caines, 2017; Couros & Hildebrandt, 2017b), critical digital citizenship (Emejulu & McGregor, 2016), and critical data literacies (Hinrichsen & Coombs, 2013; Pangrazio, 2016; Pangrazio & Selwyn, 2017). Critical digital/data literacies include networking literacies (Rainie & Wellman, 2012) as well as critical reflection on the ways in which networks and social media tools also foster surveillance, inequality, and “epistemic enslavement” (Mejias, 2011, p. 48).

Finally, the related concept of ‘Visitors and Residents’ also has been used as a lens to reflect on digital literacies and digital learning. The Visitors and Residents (V+R)
concept was first proposed by White and Le Cornu (2011) in response to the persistence, within educational institutions and beyond, of *digital natives* discourse. A digital natives discourse assumes that younger people (‘digital natives’) rather than older people (‘digital immigrants’) are experts in using digital technologies and are thus new kinds of students, presenting new challenges within higher education. The digital natives/immigrants metaphor was proposed by Prensky in 2001 (Prensky, 2001), building on the earlier concept of a ‘net generation’ (Tapscott, 1997). This notion of a digitally savvy younger generation – and its corollary, a generational divide – has been widely criticised in the academic literature over the past decade (Bayne & Ross, 2007; Bennett, Maton, & Kervin, 2008; C. Brown & Czerniewicz, 2010; C. Jones & Czerniewicz, 2010; Kirschner & De Bruyckere, 2017; Lanclos, 2016; Selwyn, 2009; White & Le Cornu, 2011, 2017). One compelling critique of the digital native/immigrant trope by Bayne and Ross (2007) summarises the key arguments:

…we argue against the reduction of our understanding of these issues to a simplistic binary which contains within itself the structural de-privileging of the teacher, a marketised vision of higher education, a racialised and divisive understanding of student/teacher relationships and an associated series of metaphors which ‘write out’ the possibility of learner and teacher agency in the face of technological change. (p. 5)

The V+R concept moves beyond binary oppositions. According to White and Le Cornu (2011, 2017) and Lanclos and White (2015), individuals operating in *Visitor* mode access online resources in an instrumental way, to retrieve information or engage in a transaction. In *Resident* mode, however, individuals engage with people, not just with information. Key to the Resident mode of engagement is the fact that it leaves evidence in the form of online social traces, for example, in the form of profiles, digital content, or interactions with others. Individuals are never wholly Visitors or Residents, however. Online behaviour depends on an individual’s particular intentions, choices, and context. V+R is a continuum: between the two poles is where much online activity happens. An example is Resident behaviour within bounded communities, not visible on the open web, e.g. interactions within Facebook groups, within members-only wikis, or in course discussion boards. A Resident mode of engagement is becoming increasingly prevalent, both within and beyond higher education. Citing Lanclos and White (2015) and Stewart (2015), among others, White and Le Cornu (2017) note that “the social or Resident web is fuelling debate around what it means to be a scholar in the digital era” (section 2, para. 5).

*Digital identity*

The concept of identity is of enormous interest and importance in the context of both higher education and increasingly networked and participatory culture. The classic conception of identity as essential, unitary, and unchanging began to be challenged in
the mid-20th century. Mead (1934) conceptualised identity as a social process, with two aspects of the self, ‘I’ and ‘me’, engaged in conversation and negotiation. Goffman (1959) emphasised the importance of context and audience, including the performative aspect of identity. Giddens (1991) took a postmodern turn, conceiving of identity as a project (Marwick, 2013). In the postmodern/poststructuralist interpretation, identity is seen as flexible, dynamic, changeable, and socially constructed, emphasising identity formation as a process (Greenhow & Robelia, 2009) and highlighting the importance of individual agency (Hildebrandt & Couros, 2016). However, while identity includes the way we think about ourselves, and our roles in social environments, it is also enacted through social interactions (N. Ellison & boyd, 2013). Thus, there has been considerable attention paid to identity in networked publics, particularly via engagement with social media (boyd, 2010; N. Ellison & boyd, 2013; Greenhow & Robelia, 2009; Jurgenson, 2012; Marwick, 2013; Miller, 2013; Pearson, 2009; Vivienne, 2016).

A prevalent notion in the early years of the internet was that online identities were separate from, and perhaps less authentic than, offline identities. This belief, termed ‘digital dualism’ (Jurgenson, 2011, 2012), has been critiqued by many. Our online and embodied identities are, in fact, deeply intertwined: ‘the digital’, as formed through networked but embodied practices, is always enmeshed with the material (Gourlay, 2015b, 2017; Hildebrandt & Couros, 2016; Miller, 2013). The notion of a wholly separate ‘digital identity’ or ‘online identity’ is increasingly problematic and may even be considered an anachronistic formulation (Miller, 2013):

…it seems that the real lesson of online identity is not that it transforms identity but that it makes us more aware that offline identity was already more multiple, culturally contingent and contextual than we had appreciated. (p. 10)

Yet, while our online and embodied identities are intertwined, the digital can extend or amplify the non-digital. This has an influence on “ease of access, speed of dissemination, and how we manage our identities and relate to each other” (White & Le Cornu, 2017, section 4.2, para. 1. Engaging in participatory culture and digital production is neither purely technical nor socially neutral; technologies themselves are “inscribed with social meaning, power relations, possibilities for and restrictions on the expression of personal identity” (Goodfellow & Lea, 2007, p. 128).

3.2 Higher education context

Higher education in Ireland, and in most countries, faces many challenges in the second decade of the third millennium. These include reductions in public funding, rising costs, increasing numbers of students, changing student demographics, accelerated casualisation, a new competitive landscape, and the imposition of market mechanisms
and managerial control (Courtois & O’Keefe, 2015; Fanghanel, 2012; Spanier, 2010; Veletsianos, 2013; Yuan & Powell, 2013). In addition, as Siemens (2012) has observed: “The internet is happening to education.” The growth of the network society and new forms of social learning have challenged and continue to challenge the traditional roles of universities and academics as the primary providers of knowledge (UNESCO, 2014). Armstrong and Franklin (2008) describe these changes in terms of blurring boundaries:

The historically more certain boundaries – where information and communications were controlled by universities – is being lost. Institutions are struggling to make sense of how to operate in this changed and permeable space. The mindsets and frameworks of references that we have used hitherto are no longer adequate. Many boundaries have blurred: virtual and physical localities, professional and social lives, formal and informal learning, knowledge consumption and production. (p.2)

### 3.2.1 Open education and higher education

In the face of many challenges, an increasing number of scholars are studying how emerging technologies and sociocultural changes are influencing scholarly norms and culture (for example: Bayne, 2004; Gogia, 2016; Hemmi et al., 2009; Hildebrandt & Couros, 2016; Ross, 2011; Selwyn & Facer, 2013; Stewart, 2015a, 2015b, Veletsianos & Kimmons, 2012b, 2012a; Veletsianos & Stewart, 2016; Weller, 2011b). Participatory technologies may not necessarily change scholarly norms, but their growing use by both staff and students shows that current norms of scholarship are in a state of change (Stewart, 2015a; Veletsianos & Kimmons, 2012b; Weller, 2014).

Teaching and pedagogical interactions between educators and students typically occur in higher education in one or more of the spaces illustrated in Figure 3.1: physical spaces, bounded online spaces, and open online spaces. The most longstanding model of higher education is one of educators and students engaging with one another in **physical spaces** such as lecture halls, classrooms, laboratories. Online learning spaces offer opportunities to overcome the temporal and spatial limitations of physical spaces. **Bounded online spaces** are members-only spaces, the most prevalent example of which is the Virtual Learning Environment (VLE)\(^{14}\), enabling access to learning resources and asynchronous interaction between educators and students. Classrooms and bounded online spaces comprise the primary learning spaces within higher education. However, increasing numbers of educators are choosing to engage with students outside of these formal spaces, where students have “increased power to build and shape their knowledge and literacy practices” (Williams, 2013, p. 178). Educators who

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13 These issues are explored further in Section 4.4.

14 A Virtual Learning Environment, or more commonly VLE, is the term used for a learning platform. It is also referred to as a Learning Management System or LMS.
choose to teach and interact with students in *open online spaces* do so in acknowledgement of the ubiquity of knowledge across networks, the importance of developing digital and network literacies, and, often, a desire to facilitate learning that fosters agency, empowerment, and civic participation (Couros & Hildebrandt, 2017a; DeRosa, 2016; Devine, 2013; Evans, 2014; Gogia, 2016; Greenhow & Gleason, 2014; Stewart, 2015a; Veletsianos, 2015a, 2016).

Figure 3.1 builds on Alec Couros’s original concept of the networked educator or ‘networked teacher’ (Couros, 2008) to show how open practices and open learning spaces contribute to ‘thinning the walls’ of the classroom. Over a decade ago, Couros (2006) claimed that: “It must be a priority to understand [our students’] connections, apply our pedagogical understandings and leverage these relationships” (p. 182).

With regard to the use of digital, social, and participatory media in higher education, Facer and Selwyn (2010) suggested:

…learners need to practice and experiment with different ways of enacting their identities, and adopt subject positions through different social technologies and media. These opportunities can only be supported by academic staff who are themselves engaged in digital practices and questioning their own relationships with knowledge. (p. 166)

While open education is seen by some to represent a proposition for radical and positive change in higher education, many practices of a ‘knowledge scarcity’ culture remain, e.g. academic publishing norms, conventions for owning and sharing intellectual property, and bounded learning spaces. A ‘pedagogy of abundance’, associated with open education, contrasts sharply with a more traditional ‘pedagogy of scarcity’ or instructivist pedagogy, still common within higher education (Weller, 2011a). Thus, moves towards more open educational practices, pedagogies, learning spaces, and
strategies are often met with resistance or apathy (Jenkins et al., 2015; Stewart, 2015a; Wiley & Hilton III, 2009).

Some individual educators, however, adopt the use of OER and OEP to offer students opportunities to create and collaborate in open online spaces, and to integrate their informal and formal learning practices, networks, and identities (e.g. Cochrane et al., 2013; Couros & Hildebrandt, 2016; Cronin, Cochrane, & Gordon, 2016; DeRosa, 2016; Dohn, 2009; Gogia, 2016; Josefsson, Hrastinski, Pargman, & Pargman, 2015; Nicolajsen & Ryberg, 2014; Ryberg & Larsen, 2008; Veletsianos & Navarrete, 2012). Many of these accounts note the benefits of pedagogical innovations in networked publics, as well as the challenges and tensions that arise in relation to self-representation, including where and how to build identities and networks, how to manage a multiplicity of identities, and how to integrate traditional and open academic identities and practices. Numerous studies have explored the notion of the development of academic identity in the context of increasingly open and networked learning (Hildebrandt & Couros, 2016; Kimmons & Veletsianos, 2014; Lankveld, Schoonenboom, Volman, Croiset, & Beishuizen, 2016; Ross, Sinclair, Knox, Bayne, & Macleod, 2014; Stewart, 2015a; Veletsianos, 2013; Wise & O’Byrne, 2015; Zourou, 2017). While academic identities are read “at the micro level of practice” (Fanghanel, 2012, p. 10), they are inscribed within broader contexts, e.g. institutional, disciplinary, and department contexts, theoretical/philosophical stance, and personal values (Fanghanel, 2012; Hildebrandt & Couros, 2016; Lankveld et al., 2016; Ross et al., 2014; Weller, 2014; Zourou, 2017). Thus, identity represents a key site of negotiation in academic contexts as well as in increasingly open, networked, and participatory culture. The interplay between individual open practice and institutional norms is a key aspect of investigation in this study.

### 3.2.2 Open education policy

Over the past several years, several European projects and programmes have developed strategies and policy frameworks for digital and open education. In 2013, the European network for co-ordination of policies and programmes on e-infrastructure (e-InfraNet) published ‘Open’ as the Default Modus Operandi for Research and Higher Education (van der Vaart, 2013). The report characterised ‘Open’ as “an approach, a modus operandi, not as an ideology or an end in itself” (p. 10), and proposed the following definition:

> Open means ensuring that there is little or no barrier to access for anyone who can, or wants to, contribute to a particular development or use its output. (p. 12)

The e-InfraNet report outlined a broad policy framework for open approaches in research and higher education, advocating the use of open content and open processes, leading to the development of a culture of openness. Acknowledging that open content
and processes require cross-disciplinary approaches, the report’s key recommendations included (van der Vaart, 2013):

- provision of support and advice on copyright and licensing issues;
- active support and training for all staff who work on open initiatives;
- adoption of appropriate evaluation and reward systems for open research; and
- continued investment in research and development work in the area of open, with respect to policies, good practices, and technical approaches. (p. 54)

More recently, the European Commission’s Joint Research Centre (JRC) Science for Policy published *Opening up Education: A Support Framework for Higher Education Institutions* (Inamorato dos Santos et al., 2016). This report reinforced the fact that open education includes but is not limited to open access and OER. The *OpenEdu framework* presents 10 dimensions of open education: six core dimensions (access, content, pedagogy, recognition, collaboration and research) described as the ‘what’ of opening up education, and four transversal dimensions (strategy, technology, quality, and leadership) described as the ‘how’ of opening up educational practices. All dimensions are interrelated (see Figure 3.2).

![OpenEdu Framework for Higher Education](image)

**Figure 3.2** OpenEdu Framework for Higher Education. Source: *Opening up Education* (Inamorato dos Santos et al., 2016)

In terms of policy and strategy, the *Opening up Education* report asserts that “open education is a tool for social change” (p. 31), but acknowledges the lack of clarity on “what open education is” and cites the lack of open education strategies across most higher education institutions (Inamorato dos Santos et al., 2016):

In sum, there is a need for a common understanding of open education in Europe, which would allow higher education institutions to make it a powerful tool for networked practices, learner and institutional development, and a mechanism for social change by providing a bridge between non-formal and formal learning. (p. 7)

The practical and policy issues highlighted in these European strategy documents are directly relevant to the Irish higher education context. The national *Digital Roadmap*...
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2015-2017\textsuperscript{15} outlined four key recommendations for higher education in Ireland (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015b): (1) strategic development of digital capacity, (2) collaboration between institutions, (3) actively engaging with students and teachers to develop their digital skills and knowledge, and (4) using evidence-based research. Under the third of these four recommendations, one priority for success is: “Develop and implement open education principles and practices for Irish education that are aligned with EU policy and emerging international practice” (p. 41, emphasis added).

The National Forum recommended that HEIs consider questions such as the extent to which the institution has adopted the principles of open education, encourages the development of OER, supports staff who engage in open education initiatives, and addresses inclusivity with respect to openness. Recommended outcomes of successful implementation of open education policies, principles, and practices include (p. 46):

- Institutions will adopt open education principles with regard to teaching and learning resources and practices
- Open educational resources will be developed and shared nationally through institutional or shared repositories

In summary, both European and Irish higher education policy frameworks recommend greater adoption of open education principles and practices. Recognising the challenges of such endeavours, a number of models and frameworks are available to support the development and implementation of open education in higher education institutions.

3.3 Interpretations of ‘open education’

As noted in Chapter 2, open education definitions, narratives, and initiatives have evolved in different contexts, with differing priorities. The qualifier ‘open’ is used to describe resources (the artefacts themselves as well as access to and usage of them), learning and teaching practices, institutional practices, the use of educational technologies, and the values underlying educational endeavours. Openness is discussed as a response to the rise of digital technology, knowledge ubiquity, and the network society. It is also discussed in terms of a fundamental philosophical claim that knowledge is a common good and should be as accessible and open as possible (Peter & Deimann, 2013; UNESCO, 2014). Weller (2014) advises that we are mistaken to try to define or discuss openness as a unified entity; it is more useful as an umbrella term.

\textsuperscript{15}The Digital Roadmap 2015-2017 was developed following an extensive national consultation across all higher education institutions in Ireland and analysis of national policy documents from the Higher Education Authority, Department of Education and Skills, Department of Communications, Energy and Natural Resources, and others.
Watters (2014) cautions that while such multivalence can be a strength, it is also a weakness when the term “becomes so widely applied that it is rendered meaningless” (para. 10). Conducting and studying research on open education thus requires that we identify the precise interpretation(s) and contexts of openness being explored.

Several theoretical models or frameworks of open education have been created, in attempts to provide analytical tools for open education research (C. Jones, 2015b; Mason & Pillay, 2015; Mulder & Janssen, 2013; Naidu, 2016; Schaffert & Geser, 2008; Weller, 2014). The various definitions overlap, particularly with respect to access, but also focus on different aspects and levels of openness. Yet with the stakes so high, clarity is important. Cognisant of these various models and frameworks, and drawing from them all, I consider four broad interpretations of openness within the context of higher education within which all key aspects can be explored, i.e. access, admission, cost, usage rights, choice, learning, teaching, and scholarship. Following is a brief summary of these four interpretations: (i) open admission, (ii) open as free, (iii) open educational resources (OER), and (iv) open educational practices (OEP). This is followed by a deeper exploration of OEP, the focus of this study.

i) Open admission

One interpretation of openness, characterised as ‘classical’ openness (Mulder & Janssen, 2013), is open admission or open entry to formal education. At this level, the qualifier ‘open’ refers to open-door academic policies, i.e. the elimination of entry requirements for institutional-based learning as in ‘open university’. No prior educational attainment is required for entry to open universities, although course fees generally apply. Open universities often make some educational resources available to the public for free (an example of the second interpretation of open education, described below), historically via libraries, television and radio broadcasts, and more recently via the internet.

ii) Open as free

A second interpretation of openness describes educational resources that are available for free, i.e. at no cost to the user. This level of openness is an extension of the idea of public libraries and the internet as a free and open resource for all. Under this interpretation of openness, a vast array of online resources and courses would be considered open, e.g. YouTube videos, TED Talks, Khan Academy screencasts, podcasts, MOOCs, etc. (Moe, 2015). These resources are freely available online to anyone interested in and, not insignificantly, able to access them. In many cases (e.g. most MOOC providers) users are required to register, providing personal information such as a name and email address. In such cases, while the resources are technically free, they are considered to have an opportunity cost to the user in the form of personal
and usage data (Hodgkinson-Williams & Gray, 2009). In addition, the use of free online resources is subject to copyright restrictions unless the resource creators provide explicit permission for reuse of the original works. Many open education advocates and researchers thus consider ‘open as free’ to be a limited interpretation of openness (Wiley, 2009; Winn, 2012), leading to a third interpretation: open educational resources or OER.

iii) Open educational resources (OER)

According to the Open Education Consortium (n.d.), openness is not simply a matter of access but “the ability to modify and use materials, information and networks so education can be personalized to individual users or woven together in new ways for large and diverse audiences”. This change in the conception of openness is often described as the difference between open as gratis (free of cost) and open as libre, enabling legal reuse (Winn, 2012). As explored in the previous chapter (Section 2.3, page 17), the term OER defines resources that expressly enable reuse through the use of open licensing or release into the public domain (Adams, Liyanagunawardena, Rasool, & Williams, 2013; Wiley et al., 2014). The most recent OER entry in the Encyclopedia of Educational Philosophy and Theory acknowledges the diversity of OER as a category, but also the widespread agreement about its key properties (Havemann, 2016):

Notwithstanding OER scholars’ propensity for generating new definitions, there is widespread agreement with the key points of the original UNESCO definition. That is, it is generally understood that the term OER should refer to freely available digital resources, which have been released under some form of open licence (in practice, almost always one of the Creative Commons licences) that explicitly grants permission for both use and adaptation. (section 3, para. 5)

OER vary considerably from resources produced and shared by individuals (e.g. documents, images, audio, video, slide presentations) to more formal, institutionally generated resources, characterised by Weller (2011) as ‘little’ and ‘big’ OER:

Big OERs are institutionally generated ones that arise from projects such as Open Courseware and OpenLearn. These are usually of high quality, contain explicit teaching aims, are presented in a uniform style and form part of a time-limited, focused project with portal and associated research and data. Little OERs are individually produced, low cost resources. They are produced by anyone, not just educators, may not have explicit educational aims, have low production quality and are shared through a range of third party sites and services. (Weller, 2011b, p. 105)

Multiple studies, in Ireland and elsewhere, have shown a generally low, but slowly increasing, level of awareness and acceptance of OER among academic staff in higher education (Allen & Seaman, 2016; Bossu et al., 2012; Dundon et al., 2012; Farrow et al., 2015; Hodgkinson-Williams, 2014; Karunanayaka et al., 2015; Kortemeyer, 2013; McGill, Falconer, Dempster, Littlejohn, & Beetham, 2013; National Forum for the
Enhancement of Teaching & Learning in Higher Education, 2015a; Reed, 2013; Rolfe, 2012; Walji & Hodgkinson-Williams, 2015). Overall, however, the focus of OER is on educational content, leading to a fourth interpretation of openness: open educational practices or OEP.

iv) Open educational practices (OEP)

Open education practitioners and researchers describe OEP as moving beyond a content-centred approach, shifting the focus from resources to practices, with learners and teachers sharing the processes of knowledge creation (Andrade et al., 2011; Beetham et al., 2012; Deimann & Sloep, 2013; Ehlers, 2011a; Geser, 2007a; Lane & McAndrew, 2010). Andrade et al. (2011) described OEP 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). A detailed analysis of the various conceptualisations of OEP is contained in Section 3.5.

The terms ‘open’ and ‘openness’ have multiple and sometimes contradictory interpretations. Only the latter two interpretations (OER and OEP) are considered to be ‘open’ within the open education community (Ozturk, 2015; Wiley, 2009). Many MOOCs are offered for free but the associated resources are not openly licensed, for example. This can be considered an example of openwashing, a practice akin to greenwashing16, i.e. having the appearance of open-source or open-licensing for marketing purposes, while continuing proprietary practices (Thorne, 2009). When making or considering claims or critiques about openness, it is essential to identify the specific interpretation of ‘open’ being used, as well as the particular context.

3.4 Critical approaches to openness

The concept of openness is not only difficult to define, but also highly charged and politicised. Critique plays an important role within education theory as a counterpoint to over-simplistic thinking – often evident in the form of “generalisations, unsubstantiated yet dominant discourses, and questionable binaries” (Gourlay, 2015a, p. 312). Open education narratives have been criticised in each of these respects, as well as for an overall tendency towards idealism and optimism (Bayne, Knox, & Ross, 2015; Oliver, 2015; Watters, 2014). A growing body of work regarding open education advocates a greater theorisation of openness and the adoption of a critical approach.

16 Corporate “greenwashing” has been defined as the intersection of two behaviours: poor environmental performance and positive communication about environmental performance (Delmas & Burbano, 2011; Laufer, 2003).
A foundational point in much of this work is citing the false dualism of ‘open’ vs. ‘closed’, and indeed moving beyond a simple or deontological understanding of openness (Archer & Prinsloo, 2017) and the comfort of binaries (Bayne et al., 2015; Collier & Ross, 2017; Edwards, 2015; Gourlay, 2015; Oliver, 2015). How then to define open education in a meaningful way? In general usage, the word ‘open’ has multiple definitions (“Open,” n.d.). One definition is as a descriptive adjective, i.e. open defined as ‘available’, ‘accessible’, or ‘receptive’. In this case, open is not a binary construct; one can discuss a continuum of openness, i.e. the degree to which, or the conditions under which, something is open. However, another definition of open is as a state. In this case, open is a binary construct, defined in relation to its opposite: e.g. not closed, not blocked, or not restricted. So, which definition is inferred when discussing open education, OER, or OEP? In practice, both definitions are used. Wiley (2009, para. 6) espouses the continuous construct: “A door can be wide open, completely shut, or open part way. So can a window. So can a faucet. So can your eyes. Our common-sense, everyday experience teaches us that ‘open’ is continuous.” Others reject the binary as well as continuous constructs of openness, viewing openness, for example, as boundary-crossing (Collier & Ross, 2017; Oliver, 2015) or an interplay (Edwards, 2015). Acknowledging the selectiveness and exclusions inherent in all curricula and pedagogical approaches, Edwards (2015) highlights the interplay of openness and closed-ness in all educational practices: “An important question becomes not simply whether education is more or less open, but what forms of openness are worthwhile and for whom; openness alone is not an educational virtue” (p. 253), thus advocating a more critical approach, where such is possible.

A significant critique of open education is its predominant focus on access, particularly in OER and MOOC initiatives. Open education’s focus on access reveals its roots in open learning and distance education where the aim is to enable opportunities for those who cannot attend face-to-face education. Access-oriented justifications for openness foreground “opening up” opportunities to individuals and/or populations who would have been excluded from or otherwise denied access to educational opportunities (Archer & Prinsloo, 2017). The dominant interpretation of ‘open as access’ is the subject of numerous critiques of open education; these highlight an over-emphasis on removal of barriers and a lack of emphasis on examining the practices of teaching and learning, the politics of technology production and use, and the associated relations of power (Gourlay, 2015a; Knox, 2013b; Oliver, 2015). Bayne, et al. (2015) note that it is “too often assumed that institutional structures, financial constraints, and distance are the only issues preventing the instinctive and effortless uptake of self-directed learning” (p. 248). Knox (2013a) contends that the ‘open as access’ approach masks underlying assumptions of instrumentalism and essentialism, i.e. potentially masking the ways in which networks, systems and codes of open education might affect, or transform, the learning process. Such critiques can be seen to address the first three
interpretations of openness outlined above, rather than OEP where the focus is also on process, practices, and pedagogy. Other critiques of the ‘access’ focus within open education arise from the Global South, identifying the deeper problem of epistemic inequality:

… a conception of open access that is limited to the legal and technical questions of the accessibility of science without thinking about the relationship between centre and periphery can become a source of epistemic alienation and neocolonialism in the South. (Piron, 2017) (translated in Nobes, 2017)

This critique is an increasingly important focus of open education research at present, particularly within the Global South (Arinto, Hodgkinson-Williams, King, & Cartmill, 2017; Czerniewicz, 2013; Czerniewicz & Naidoo, 2013; Czerniewicz & Walji, 2017; Hodgkinson-Williams & Arinto, 2017).

Another focus of critical analysis of open education is the assumption of an innately self-directed learner. At least some open education narratives rest on idealised imaginaries of open learners as rational and fully autonomous beings, decoupled from social contexts, and responsible for their own learning and development (Bayne et al., 2015; Gourlay, 2015; Knox, 2013b). McMillan Cottom (2015), for example, notes that many MOOCs appear to conceive of learners as “roaming autodidacts – self-motivated, able learners that are simultaneously embedded in technocratic futures and disembedded from place, culture, history and markets” (p. 9), and almost always conceived as western, white, educated and male. Such assumptions can shift responsibility away from educational institutions, and away from teaching and pedagogy (Gourlay, 2015a; Knox, 2013a). Diminishing the role of teachers and pedagogy conceals the complexities of academic labour inherent in open education. The creation of open educational resources, for example, relies on institutional resources and the appropriation of academic labour, yet many OER narratives fail to address these inherent tensions. As Winn (2015) observed: “A dialectical tension exists within open education between the distributed, ‘networked’ possibility of abundance and the private, corporate institutional form of universities that sustain it” (p. 13).

Some open education narratives are thus viewed as utopian fantasies of democratisation, where the working of systemic power and privilege around gender, race, culture, class and sexuality is absent or suspended (Gourlay, 2015a; McMillan Cottom, 2015). Recent critical reconceptualisations of MOOCs seek to address such concerns. Czerniewicz and Walji (2017), for example, approach MOOC development from a social inclusion perspective (Gidley, Hampson, Wheeler, & Bereded-Samuel, 2010), focusing on inclusive content development, enabling engagement with learning in multiple ways (not solely online), and empowering local communities. These MOOCs are embedded in a theoretical approach to openness that recognises the importance not only of access, but also of epistemologies of knowledge, participation,
and empowerment. Critical approaches to openness such as these, addressing issues of risk and power (Collier & Ross, 2017; Czerniewicz, Deacon, Glover, et al., 2017; Farrow, 2015; Selwyn & Facer, 2013), offer important ways to continually reconceptualise and reframe open education in ways that are both participatory and emancipatory.

In summary, critical approaches to openness highlight vitally important issues with respect to openness that are absent from many of the more optimistic ‘banner headlines’ of open education in the popular press as well as in the academic literature. Greater theorisation of openness requires that researchers and institutions address the various ways that openness “reconfigures or maintains particular notions of learning, teaching, and human being” (Bayne, et al., 2015, p. 248). Critical educational theory warrants empirical research that is qualitative, ethnographic, interpretive, and generative of thick descriptions of specific contexts, structures, and human experiences. Such analysis contributed to the justification for this research study.

3.5 Defining OEP

This section explores the evolving conceptualisations of open educational practices in the literature and how these understandings have been taken up in empirical studies of OEP. This entire section also is published, in slightly amended form, in the following peer-reviewed journal article (see Appendix II).


3.5.1 Evolving definitions of OEP

Conceptualisations of 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 here as 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), a founding text of the OER movement, points to an expansive approach:

The expanding global collection of open educational resources… contribute to making education more accessible, especially where money for learning materials is scarce. They also nourish the kind of participatory culture of learning, creating, sharing and cooperation that rapidly changing knowledge societies need. However, 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.
In reviewing the open education literature, I sought to trace a path exploring how the definition of OEP has evolved and how these roots appear in current empirical studies of OEP. While open education has a long history, the specific concept of ‘open educational practices’ has emerged only in the past decade (2007 through 2017). I observed four distinct strands in the OEP literature, each mirrored in the work of four initiatives which have clearly influenced the development of the field. The similarities and differences in scope and emphasis among these are important in understanding how OEP is conceptualised in specific instances. The four strands of research arise from the following bodies of work:

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), UCT (2009-2014)

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 eLearning programme\(^\text{17}\) (Geser, 2007a, 2007b; Schaffert & Geser, 2008). The project partners were based in six educational/research institutions in five countries\(^\text{18}\). The aim of the OLCOS project was to foster the 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, emphasis added)

The OLCOS project methodology included a detailed literature review, workshops, and interviews with experts. The final project report had a five-year time-horizon and thus


\(^{18}\) 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).
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. (p. 37)

The report also identified enablers and inhibitors of OER and OEP and provided tailored recommendations for policy makers, funding bodies, senior managers in educational institutions, 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:

OLCOS stresses the importance of OEP within and across educational institutions, as the actual practices are decisive in whether, which and how digital educational content, tools and services will be employed… Such practices we understand to follow a competency-focused, collaborative paradigm of learning and knowledge acquisition. (Geser, 2007a, p. 38)

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 (e.g. Alevizou, 2012; Armellini & Nie, 2013; Czerniewicz, Deacon, Glover, & Walji, 2017; 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 arising 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 (2011a, 2011b) (a member of the project team and co-author of the project report) developed a framework describing the constitutive elements of OEP (see Figure 3.3).

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 (Ehlers, 2011a):

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. (p. 6)

The main OPAL report (Andrade et al., 2011), along with the related papers by Ehlers and Conole, continue to be cited widely by researchers in OEP (e.g. Armellini & Nie, 2013; Atenas, Havemann, & Priego, 2014; Carey, Davis, Ferreras, & Porter, 2015; Casey & Evans, 2011; Coughlan & Perryman, 2015; Czerniewicz, Deacon, Glover, & Walji, 2017; Hogan, Carlson, & Kirk, 2015; Karunanayaka, Naidu, Rajendra, &
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 et al., 2013). One of these initiatives, the Jisc/Higher Education Academy Open Educational Resources (UKOER) programme, ran from 2009 to 2012\(^1\). The purpose of UKOER 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 many outputs: OER use case studies, the OER infoKit\(^2\), the UKOER10 symposium\(^3\), the Open Practices: Briefing Paper (Beetham et al., 2012), and Journeys to Open Educational Practice: UKOER/SCORE Review Final Report (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)
- 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

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\(^{1}\) The second HEFCE-funded project was the Open University Support Centre for Open Resources in Education (SCORE). SCORE was more directly focused on OER so is not explored in detail in this chapter. Additional information can be found in the UKOER/SCORE final report (McGill, et al. 2013).

\(^{2}\) OER infoKit: https://www.jisc.ac.uk/guides/open-educational-resources

\(^{3}\) UKOER10 symposium: https://www.jisc.ac.uk/guides/open-educational-resources
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. Distinct, context-specific OEP included openly licensing existing content, students reviewing and selecting open content, and students actively producing OER.

In addition to providing an expansive conceptualisation of OEP, the UKOER research also 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 (e.g. Carey et al., 2015; Czerniewicz, Deacon, Glover, et al., 2017; Paskevicius, 2017; Udas, Partridge, & Stagg, 2016).

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

The fourth body of significant OEP research has emerged from researchers in CILT (Centre for Innovation in Learning and Teaching) at the University of Cape Town (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). As with the three strands of OEP research already described, CILT research has emphasised the importance of broadening studies of OER to include OEP, but 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 and 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, and 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 (Arinto, Hodgkinson-Williams, King, & Cartmill, 2017; Cox & Trotter, 2016; Czerniewicz, Deacon, Glover, & Walji, 2017; Czerniewicz, Deacon, Walji, & Glover, 2017; Nerantzi, 2017; Paskevicius, 2017).

In summary, across the literature there are four distinct strands of OEP research, comprising three specific OER/OEP projects and one body of research emerging from an academic unit (summarised in Table 3.1).

| Table 3.1 Four Key Strands of OEP Research Frequently Cited in the Literature |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                 | OLCOS project   | OPAL initiative | UKOER programme | CILT research   |
| Year                            | 2006-07         | 2010-11         | 2009-12         | 2009-2017       |
| Scope                           | Europe          | Europe          | UK              | Africa/Global South |
| Definition of OEP              | "practices which involve students in active, constructive engagement with [open] 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) |

Despite their differences, all four conceptualisations of OEP focus on both OER and collaborative pedagogical practices as a means of transforming education. The earliest work (emerging from OLCOS and OPAL, independently) began as OER studies but concluded with broader recommendations for developing open educational practices. 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. 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.

3.5.2 OEP-related concepts

In addition to diversity across the 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. These include open scholarship (Veletsianos & Kimmons, 2012a; Weller, 2011b), networked participatory scholarship (Veletsianos & Kimmons, 2012b), open pedagogy (DeRosa & Robison, 2015; 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. Each is described here briefly before I discuss assumptions, gaps and themes across all OEP and OEP-related concepts.

Open scholarship

Current conceptions of open scholarship and the ‘open scholar’ began to emerge in the scholarly 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). McAndrew et al. (2010) claimed that open scholarship was likely to represent the next stage of development for both campus-based and distance education institutions (McAndrew, Scanlon, & Clow, 2010). Weller (2011) proposed a definition of the open scholar encompassing open digital identity, open networking practices, use of open tools, and open publishing. Veletsianos and 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 democratisation 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, 2017b; Masterman, 2016; O’Keeffe, 2016; Stewart, 2015a, 2016b; Veletsianos & Stewart, 2016). Veletsianos and Kimmons (2012b) defined networked participatory scholarship as an emergent practice: “scholars’ 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 scholars’ 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, p. 771).

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 networked participatory scholarship 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 initial 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. And 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). Farrow (2015) contends that a critical approach should be at the heart of open education:

By democratising 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 marginalised 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. Open pedagogy can be considered 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 during and after the 2017 Open Education Global Conference (Bali, 2017; Cronin, 2017b). 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 5Rs framework of OER (Wiley et al., 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 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, 2017a, 2017b). 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’ (e.g. OEP, open pedagogy) to encompass many different interpretations and the capacity for the field to evolve accordingly.

### 3.5.3 Empirical studies of OEP

The studies cited here are based on a survey of OEP-related literature over a 10-year period, 2007 through early 2017. Most OEP empirical studies have appeared in the past five years. Empirical studies of OEP gather data (e.g. via surveys, interviews, observation, 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” (p. 9) 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” (p. 202).
- 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” (p. 6).
- 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” (p. 29).
- 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, 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, Deacon, Glover and Walji (2017) 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, Deacon, Glover, et al., 2017). 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.

In a study of the open practices of educators in international health projects, Coughlan and Perryman (2015) concluded that existing OEP frameworks were 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, 2015a; 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, Bossu and Stagg (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 the capacity of academics in Australia to adopt and incorporate OER and OEP.

Conclusion

Open education and higher education operate within a rapidly changing sociotechnical context. Concepts such as the network society, networked individualism, and even the network itself, are oft-used metaphors yet none are readily bounded or uncontested concepts. Jenkins, et al. (2015) prefer the term ‘increasingly participatory culture’ to their original ‘participatory culture’. The same convention is adopted in this thesis, where I write of ‘increasingly networked, open, and participatory culture’ (and how this influences scholarly practices and culture), rather than relying on a unitary concept. Also important for the purposes of analysing the findings in this study is a focus on the contextual and situated nature of concepts such as privacy (Nissenbaum, 2004, 2010), identity (Fanghanel, 2012; Miller, 2013), and digital literacies (Beetham & Sharpe, 2010; C. Brown, Czerniewicz, Huang, et al., 2016; Lea & Jones, 2011). 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 open education, OER, and OEP are considered. Two broad conceptualisations of OEP are OER-focused and expansive. Expansive conceptualisations take context into account and advocate a critical approach (Beetham et al., 2012; Hodgkinson-Williams, 2014). Critical approaches to openness encourage moving beyond the binaries of open and closed, focusing on issues of participation, risk, and power. The 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; however, recent empirical studies show that adoption of OEP is often uneven and does not always begin with the use of OER.

The following chapter moves on from reviewing the literature to provide a detailed explanation of the research design and methodology used in this study.
Chapter 4. Research Design and Methodology

Across the literature, the terms research design, methodology, and methods are often used interchangeably. The definitions adopted here are as follows. Research design is the overarching principle, i.e. the selection, assembly, sequencing, and application of research tools according to a specific epistemological framework and methodological principles. Research design consists of three main elements (Corbin & Strauss, 2008; Creswell & Plano Clark, 2011; Crotty, 1998; S. Jones, 2002; S. Jones et al., 2014):

- **ontological/epistemological/theoretical framework**, conveying the philosophical perspectives in which the work is situated and which inform the methodological choices;
- **methodology**, describing the general strategies of inquiry which govern the choice and use of methods; and
- **methods**, the actual procedures, techniques, and tools used for participant selection, data collection, data analysis and synthesis, and reporting.

In this study, I have used a qualitative, interpretive approach, drawing also on critical approaches. In Section 4.1, I situate the study in terms of its philosophical underpinnings and theoretical orientations. In Sections 4.2 and 4.3, I describe the research questions and explain my choice of constructivist grounded theory methodology. Following this, I provide information about the research site (Section 4.4) and explore important ethical considerations (Section 4.5). The remainder of the chapter describes the procedures, techniques, and tools used for participant selection, data collection, and data analysis during each of the two phases of the study. The chapter concludes with a description of the initial development of the grounded theory, which is taken forward in the following two chapters.

4.1 Ontological and epistemological framework

A researcher’s worldview of the nature of existence (ontology) and the nature of knowledge (epistemology) has implications for how a study will be conducted. Research methods are not simply a technical exercise; they are always embedded in a particular worldview (Cohen, Manion, & Morrison, 2011; S. Jones et al., 2014). The range of social science research frameworks and paradigms can be characterised in different ways. At root level, there are two broad worldviews: objectivist/positivist and subjectivist/antipositivist. Each makes different ontological and epistemological
assumptions. With respect to ontology, the objectivist/positivist paradigm assumes that objective truth exists and can be discerned (Cohen et al., 2011; Guba, 1990; Willis, 2007). In the antipositivist worldview, the social world is viewed as constructed. Reality can never be fully known; it is always interpreted, at least to some extent (Carr & Kemmis, 1986; Guba, 1990). Turning to epistemology, a researcher with an objectivist/positivist conception of knowledge will operate from a belief that it is possible to study phenomena from the standpoint of an unbiased, neutral observer. A researcher with a subjectivist/antipositivist worldview will reject the possibility of neutrality, instead acknowledging their standpoint, location, and privilege in shaping what is observed (Bryant & Charmaz, 2007b; Carr & Kemmis, 1986). Epistemologically, antipositivist researchers believe that we interpret and construct our understanding(s) of the world, often in interaction with others.

These differences in worldview have clear implications for how research questions are framed and research methods are selected. Researchers working in the objectivist/positivist paradigm may be more likely to choose quantitative methods in order to measure and validate ‘reality’ and to discover general laws and principles, while researchers working from a subjectivist/antipositivist stance would be more likely to use qualitative methods, focusing on how humans interpret their particular worlds. Yet this simple categorisation ignores the potential of various methods to be used in different ways, depending on the overarching research paradigm. Stake (1995) succinctly described this complexity:

…the quantitative side of me looked for the emergence of meaning from the repetition of phenomena, the qualitative side of me looked for the emergence of meaning in the single instance. (p. 76)

Beyond the binary positivist/antipositivist categorisation, several distinct social science paradigms can be identified. Generally, the objectivist/positivist approach is considered to be a paradigm of its own, while subjectivist/antipositivist approaches are often divided into two distinct paradigms: interpretivist and critical (Cohen et al., 2011; Mack, 2010; Willis, 2007). Jones, Torres, and Arminio (2014) consider four distinct paradigms: (i) objectivist positivistic empiricism and postpositivism; (ii) constructionism, constructivism, and interpretivism; (iii) subjectivism and critical theory; and (iv) postmodernism, poststructuralism, and deconstruction. Each is described briefly below, followed by an elucidation of the paradigmatic assumptions of this research study.

Social science paradigms

Positivism developed within the fields of natural science. The natural sciences are concerned with ‘discovering’ natural laws about ‘truth’, thus positivism strives for objectivity, measurability, predictability, controllability, and the ascription of causality
Chapter 4. Research Design and Methodology

(Cohen et al., 2011, p. 31). Its core assumption is that the use of the scientific method is the primary (or only) way of discovering truths (Willis, 2007). Positivism in social science walks firmly in this tradition of objectivism and empiricism (Cohen et al., 2011; Mack, 2010). When social science research draws on a positivist or postpositivist paradigm, as in natural science the focus is on ‘discovery’. Positivism implies a particular stance concerning the social scientist as an observer of social reality. It is assumed that the researcher can be a neutral observer, and no relationship is assumed between the researcher and the ‘object’ of research.

While positivism arose during the Renaissance as a response to metaphysical and magical explanations of natural phenomena, in the late 19th century a coherent critique of positivism began to emerge (Willis, 2007). Unlike natural science, social science stands in a subject-subject rather than subject-object relation to its field of study. The meanings that subjects hold are part of their construction of the world (Giddens, 1976). Critiques of positivism focus on its mechanistic and reductionist view of nature, the risks of depersonalisation and dehumanisation of human beings who are the objects of study, and the rejection of aesthetic, critical, creative and other forms of knowledge (Cohen et al., 2011; David Scott & Usher, 2002; Willis, 2007). Another criticism is the positivist ideology of parsimony, i.e. the notion that theory/theories should be as simple and concise as possible (Mack, 2010):

> It is impossible for any theory in social science to be simple and precise because the world we live in and peoples’ multiple perspectives and interpretations of events make theories complex and chaotic. So many variables affect different events and people’s actions that it is impossible to determine an absolute truth. (p. 7)

In response to some of these critiques, many social scientists have moved to postpositivism, a modified and “less confident” version of positivism (Willis, 2007, p. 61) in which researchers acknowledge that they can never do enough to make sure that theories are absolutely correct. Confirming studies are not considered ‘proof’ of anything, rather they may add to the evidence that supports a theory (Guba & Lincoln, 2005). However, postpositivism remains rooted in an objective/positivist ontology, i.e. the notion that ‘truth’ exists. Three wholly different paradigms are interpretivism, critical theory, and postcritical theory.

*Interpretivism* arose as a response against positivism and empiricism (Mack, 2010; David Scott & Usher, 2002; Willis, 2007). The interpretive paradigm, also called the ‘antipositivist’ paradigm, focuses on human experience, meanings and interpretations, and the emergent nature of theory (David Scott & Usher, 2002):

> If the concern is rather with meaning within social interaction, then confining reality to the observable or empirical ‘givens’, as a positivist/empiricist does, is necessarily to miss out the most important dimension to social enquiry. (p. 18)
Within the interpretivist paradigm, individuals seek to understand their world, develop subjective meanings of their experiences, and develop situated rather than universal theories (Cohen et al., 2011; Creswell & Plano Clark, 2011). The aim is to look for greater understanding within a particular context (Willis, 2007). Research approaches and methods that fall under the interpretivist umbrella include grounded theory, phenomenology, ethnomethodology, participatory action research, and cooperative inquiry, among others (Breckenridge, Jones, Elliott, & Nicol, 2012; Carr & Kemmis, 1986; Cohen et al., 2011; Mavetera & Kroeze, 2009; Mayorga, 2014; Postill, 2012).

Interpretive research is subject to a number of criticisms. Positivists question the ontological assumption of interpretivism (subjective rather than objective) and its disregard of the scientific method—including the notions of validity, verification, and generalisability (Mack, 2010). The results of interpretive research are specific to particular contexts and are not generalisable. In addition, critiques of both the interpretivist and positivist paradigms tend to highlight the neglect of power, politics and ideology in both. Mack (2010) notes:

...interpretivism was not radical enough. While the positivist researcher seeks to explain social phenomena, and the interpretivist researcher seeks to understand social phenomena, the researcher who seeks to change and to challenge social phenomena is not represented. (p. 9)

These latter concerns are addressed in the critical paradigm. This paradigm stems from critical theory, a school of thought associated with the Frankfurt School of philosophy and social theory (Blake & Masschelein, 2002; Farrow, 2015; Willis, 2007). Freire’s (1996) importance in promoting critical thought in relation to education (e.g. critical pedagogy) is also widely acknowledged, particularly through his interpretations of praxis, a creative, contextual, and purposeful combination of reflection and action (Breunig, 2005; Giroux, 2010). The core concerns of critical theory are “the fundamental relations of power that influence the social order and the formation of human subjectivity” (Farrow, 2015, p. 130). Critical theory is informed by a strong ethical stance that rejects all possible excuses for inequality (Blake & Masschelein, 2002), seeking to redress inequality and promote individual freedoms within a democratic and egalitarian society (Cohen et al., 2011, p. 31). Critical theory views society from the position of the marginalised and the vulnerable. The critical education researcher seeks not only to understand research participants’ motivations and behaviours, but also to challenge the reproduction of inequality within participants’ lives and/or institutional structures (Mack, 2010). The fundamental aims of critical qualitative research, then, are to describe social reality, raise critical consciousness, and contribute directly to social change (S. Jones et al., 2014).

Finally, and briefly, postcritical theories, including postmodernism, poststructuralism, and deconstruction, embrace an emphasis on “social action, situatedness, knowledge
as open-endedness, and differing perspectives” (S. Jones et al., 2014, p. 14). Rejecting the notion of universal truths, postcritical approaches make use of deconstruction and promote the ‘troubling’ of essentialism and binaries (S. Jones et al., 2014; Lather, 2008; Willis, 2007). In the postmodern vein, it must be noted that demarcations between the four social science paradigms are often blurred rather than crystal clear. Postmodernism, for example, has been influenced by both interpretivism and critical theory (Willis, 2007).

**Positioning this study**

My intention in embarking upon this study was to gain a greater understanding of educators’ (i) practices, (ii) decision-making, and (iii) meaning-making with respect to openness in higher education. In thinking about data gathering and analysis, these three aspects are in increasing order of complexity. With respect to meaning-making, my intention was not to ask educators what the terms ‘open’ or ‘open educational practices’ meant to them. Rather, I wanted to understand how individual educators make sense of openness (in their institutional contexts, in their roles as lecturers, and more broadly) and how those ideas relate to their practices and decision-making regarding learning and teaching, their online interactions, and the construction and negotiation of their digital identities across various online spaces and contexts.

Jones (2002) notes that to situate a research study means to “anchor” it (p. 463). My emphasis in this study on individual meaning-making anchors me in the interpretivist tradition. I hold to the interpretivist value of studying the subjective meanings of human experiences and concur with the interpretivist belief that researcher neutrality is impossible. The views of reality held by both researchers and research participants are necessarily situated. Thus, the values of interpretive understandings and researcher reflexivity underlie my work, in this study and otherwise.

My aim, however, also includes using the contextual understanding developed in the course of the study for emancipatory practices. Cognisant of the power relations within higher education institutions, I aim to foreground the voices and values of individual educators. In addition to building an understanding of their practices, motives, and values, I intend to raise critical consciousness with respect to openness and to contribute to generative open education policies and practices that foreground the values of educators and learners. Here, my emphasis on conscientisation, and contributing to policy and social change, align my work also with critical approaches to educational research. This personal stance aligns with the research stance articulated by Willis (2007):

> I am an interpretivist, and I believe that paradigm affords the best framework within which to interpret and conduct research in my field. I also believe that the interpretive and critical perspectives overlap and that critical theory is an important and productive research tradition of the social sciences. (p. 21)
Crotty’s (1998) summary may be somewhat oversimplified, but captures the difference: where interpretive research interprets to understand, critical research interprets to critique. I aim to do both. Thus, my philosophical position for the study, therefore, is both interpretivist and critical.

4.2 Research questions

I now turn to focus on the research questions, chronicling the development of these from their first expression to final form. With open education selected as the research topic, and with an explicit grounding in an interpretivist/critical framework, I began my study with secondary research on the history, evolution, interpretations, debates, and broad context of open education, both theoretical and empirical (detailed in Chapters 2 and 3). I reflected on potential ways that my research study could contribute meaningfully to this area and formulated the following six attributes/principles for the research study:

- Open education operates within, beyond, and outside of higher education. However, the reality and possible future scenarios of openness in higher education are areas of pressing social importance for students, educators and society (as established in Chapters 2 and 3). The context for the research study would be higher education.
- The research study would not be limited to one discipline but would gather data from staff across multiple disciplines, enabling comparisons.
- A growing number of educators teaching within the higher education sector are employed on a part-time and/or fixed-term basis rather than on full-time, permanent contracts. The research study would define ‘academic staff’ broadly, to include permanent, non-permanent, full-time, and part-time staff.
- The research study would not focus solely on those who already use open practices; it would seek to gather data from a range of academic staff across a continuum of ‘closed’ (or ‘less open’) to more open practices so that the choices towards/away from openness could be explored deeply.
- Where open educational practices were found, the research study would seek to explore how students respond to invitations by academic staff to engage in open practices.
- Finally, openness was not assumed to be a universal virtue. Many studies begin with the assumption that use of OER or OEP is a ‘good thing’. I would not begin from this premise. Acknowledging that experiences of openness are necessarily personal and situated, I would focus on how individuals interpret openness and how and why they do or do not use open practices in particular contexts.
Based on these principles, I formulated an initial set of research question:

- To what extent are current practices in higher education open or closed?
- What are the assumptions, interpretations, and connotations of ‘openness’ among staff and students?
- What online spaces and tools are used by staff and students for learning and teaching, and why?
- What are the characteristics of the interactions that occur in online spaces used for learning in higher education between staff and students?
- What are staff and students’ expectations for their online pedagogical interactions with one another?

**Final research questions**

As my study progressed, I explored many concepts used by open education researchers and practitioners related to ‘teaching openly’ in higher education. As noted in Chapter 3 (Section 3.5), these include open scholarship (Veletsianos & Kimmons, 2012a; Weller, 2011b), networked participatory scholarship (Veletsianos & Kimmons, 2012b), open teaching (Couros, 2010; Couros & Hildebrandt, 2016), open pedagogy (DeRosa & Robison, 2015; Hegarty, 2015; Weller, 2014), and critical digital pedagogy (Rosen & Smale, 2015; Stommel, 2014). However, the term most closely aligned with the broad practices explored in this study was open educational practices or OEP (Andrade et al., 2011; Beetham et al., 2012; Ehlers, 2011a; Geser, 2007a; Hodgkinson-Williams, 2014; McGill et al., 2013). More specifically, I narrowed my focus to studying the use of open educational practices specifically for teaching, thus excluding uses of OEP for research, publishing, etc.

This clarification of terminology and scope enabled me to articulate the research questions for the study more clearly. With Edwards’s (2015) critical questions in mind, e.g. “what forms of openness are worthwhile and for whom?” (p. 253), the first goal was to understand whether, why, how, and to what extent academic staff used open educational practices for teaching, and to identify any shared characteristics among educators who used OEP. A second goal was to understand how open educators’ intentions related to their practices. I posed the following research questions (RQs):

RQ 1. In what ways do academic staff use open educational practices for teaching?

RQ 2. Why do/don’t individual members of academic staff use open educational practices for teaching?

RQ 3. What practices, values and/or motives are shared by academic staff who use open educational practices for teaching (i.e. ‘open educators’), if any?
RQ 4. How do students respond to open educators’ invitations to engage in open educational practices?

4.3 Research methodology

Research methodology refers to the general strategies of inquiry governing the choice and use of methods. Once a study is situated in a particular philosophical tradition, the methodological approach becomes “the rudder for all additional research decisions” (Jones et al., 2014, p. 75). Thus, the choice of research methodology is of great significance in any research study.

The first challenge to be addressed was how to find educators across a spectrum of ‘less’ to ‘more’ open practices. Many open education research studies use open practices not only to recruit participants but also to gather data (Jordan, 2014, 2017b, 2017a, Stewart, 2015b, 2015a; Veletsianos & Stewart, 2016). Inviting or conducting research in open online spaces is appropriate, however, only when the intention is to gather data from participants who already use open practices. This was not the case for this study. My aim was gather data in a natural setting, with no expectation whatsoever of open practices.

Some qualitative methodologies, such as case studies and ethnography, concentrate on rich description of what is happening for the participants (Gregory & Jones, 2009). While the aim of this study was to provide rich description, it was also to help to explain patterns as well as to describe them, i.e. to generate theory. I thus chose grounded theory, specifically constructivist grounded theory, as the methodology for the study.

Grounded theory

The grounded theory approach originated with the work of Barney Glaser and Anselm Strauss, as described in their seminal book The Discovery of Grounded Theory (1967). Grounded theory methodology aims to build useful theory through the analysis of qualitative data. Glaser and Strauss challenged the convention (at that time) of theorising at a high level of abstraction and then empirically testing the theory. Instead, they proposed developing theories on the basis of empirical research. The term ‘ground’ in ‘grounded theory’ refers to this grounding of findings in rigorous qualitative inquiry and analysis. Theory is “developed through an interactive process that involves the creation and refinement of abstract conceptualisations of particular phenomena” (Jones et al., 2014, p. 77). Grounded theory research is iterative, nonlinear, and recursive; it does not proceed in an orderly manner through a series of steps. Instead, data gathering and analysis are conducted simultaneously and in parallel. Grounded theorists constantly interact with data and with the emerging analysis. The methodology is characterised by four methods of data analysis: coding, the constant
comparative method, theoretical sampling, and memo-writing (Charmaz, 2006, 2014; Glaser & Strauss, 1967; Mavetera & Kroeze, 2009). Each of these is explained in detail in my description of Phase I of the research study later in this chapter (Section 4.6, page 77).

There are three main branches of grounded theory. The methodology as originally developed by Glaser and Strauss (1967) is considered to be classical grounded theory. Numerous debates have ensued about this original formulation. Many have challenged the assumption of researcher neutrality in classical grounded theory (Charmaz, 2011, 2014; Dwyer & Buckle, 2009; Keane, 2015). Others highlight its positivist and objectivist tendencies (Bryant & Charmaz, 2007b; Charmaz, 2014; Hallberg, 2006; Keane, 2015), for example, the premise of ‘discovering’ grounded theory (Charmaz, 2014):

In the original grounded theory texts, Glaser and Strauss talk about discovering theory as emerging from the data separate from the scientific observer. Unlike their position, I assume that neither data nor theories are discovered either as given in the data or the analysis. Rather, we are part of the world we study, the data we collect, and the analyses we produce. We construct our grounded theory. (p. 17, emphasis in original)

However, the core methods of grounded theory have been widely used across the social sciences for the past fifty years, with many of the original formulations of grounded theory becoming widely accepted and used across a range of qualitative methodologies, e.g. open and focused coding and the constant comparative method. Later developments by Strauss and Corbin (Corbin & Strauss, 2008; Strauss & Corbin, 1990) resulted in a reformulated model, more pragmatic than Glaser’s version. Strauss and Corbin’s work extended the utility of grounded theory through the development of specific analytic strategies such as axial and selective coding, the conditional matrix, and theoretical saturation (Jones et al., 2014, p. 77). A third version is constructivist grounded theory, originally developed by Kathy Charmaz (2006, 2014) but also advanced by Bryant (2002) and Corbin and Strauss (2008).

Constructivist grounded theory

Constructivist grounded theory is located within the interpretivist tradition; reality is recognised as multiple and interpretive rather than singular and self-evident; data and analysis are seen as social constructions (Charmaz, 2006, 2014; Hallberg, 2006). Charmaz (2006) notes that constructivist grounded theory “sees both data and analysis as created from shared experiences and relationships with participants and other sources of data” (p. 130). Primacy is placed on meaning-making and interpretation of and by participants – but also researchers. For this reason, constructivist grounded theory necessarily foregrounds the importance of researcher reflexivity (Jones et al., 2014, p. 78). Researchers are part of what we see, not apart from it.
Overall, the goal of all grounded theory method is to generate concepts that explain the way people resolve their central concerns (Charmaz, 2014; Glaser & Strauss, 1967). In constructivist grounded theory, “generalisations are partial, conditional, and situated in time and space” (Charmaz, 2006, p. 141). The researcher takes a reflexive stance and studies how, and sometimes why, participants construct meanings and actions in specific situations (Charmaz, 2006). Keane (2015) usefully summarises the key principles that inform constructivist grounded theory research design:

- achieving an ‘intimate familiarity’ with the research and wider social context;
- considering both researchers’ and participants’ relative standpoints and perspectives through reflexivity, including the researcher’s role in constructing the analysis;
- focusing closely on meaning, process, action and language; and
- consideration of critical and social justice-related sensitising concepts.

Aligned closely with the aims and approach of this research project, constructivist grounded theory was selected as the primary research methodology. Constructivist grounded theory principles informed all aspects of this study: ontological and epistemological grounding, research methods, and analysis.

**Final methodological decisions**

A final methodological decision was to divide the study into specific phases and to identify the methods to be used. The research questions dictated the need for at least two phases. Phase I would study academic staff, across a spectrum of ‘less’ to ‘more’ open practices, through the use of in-depth interviews. A key outcome would be interpretive understandings of participants’ situated practices, motives, and values with respect to using OEP for teaching, i.e. an emergent grounded theory. Another outcome of this phase would be identification of educators who used OEP. A subsequent phase would facilitate further study of one or more of these ‘open educators’ and their students.

The study also was designed to include a quantitative extension, i.e. a survey of all academic staff at the research site. Qualitative methods rely on emergent interpretations to produce in-depth data about a limited number of cases. There is no inherent need to ‘test’ qualitative theory building using quantitative methods. However, a quantitative

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22 In addition to studying key texts on grounded theory (Corbin & Strauss, 2008; Glaser, 1998; Glaser & Strauss, 1967; Mavetera & Kroeze, 2009; Morse, 2007; Strauss & Corbin, 1990) and constructivist grounded theory (Breckenridge, Jones, Elliott, & Nicol, 2012; Bryant & Charmaz, 2007b; Charmaz, 2005, 2006, 2011, 2014, 2016, 2017), I explored and applied constructivist grounded theory in depth by completing a Qualitative Research Method module with Dr. Elaine Keane at NUI Galway (Keane, 2015) and a two-day Constructivist Grounded Theory workshop with Professor Kathy Charmaz at Dublin City University (Charmaz, 2015).
extension to a qualitative research project can provide additional description and evidence to support the results of the qualitative study and to demonstrate their greater generality (Morgan, 2014). In this case, the findings of the first phase would be operationalised in the form of a survey in order to learn more about the emerging themes. Rather than a validation of the grounded theory, the goal would be additional description and enhancement of the emerging theory. The final research design thus comprised two phases.

- **Phase I** (addressing research questions 1-3): interviews with selected members of academic staff, using constructivist grounded theory for sampling, interviewing, and analysis;
- **Phase II** (addressing research questions 1-4): supplementary data gathering to enable further analysis and description of Phase I results:
  - Survey of all academic staff at the research site; survey design based on the emergent grounded theory from Phase I;
  - Follow-up interviews with academic staff who used open educational practices; and
  - Survey of students taught by these open educators.

The details of each of these design decisions are elaborated in the remainder of this chapter. Figure 4.1 shows how the activities in each of the two phases relate to the overall analysis and theory-building.

![Figure 4.1 Research Design](image_url)
4.4 Selection and description of research site

My aim in the first phase was to gather data from academic staff in a natural setting, with no prior expectation (on my part) of open practices. During the early stages of the study the use of an ‘open call’ for participants was ruled out. Such a process would attract participants who already used open practices, but would not reach those who did not. In addition, those responding to an open call would likely work in a variety of institutional and geographical contexts. Bearing in mind these considerations, I decided to base the study within one institution. This would enable analysis of individual practices, motives, and values with respect to openness within a single institutional/cultural context. To facilitate access to participants, and cognisant of the need for reflexivity about my position as an ‘insider’ researcher (explored further in Section 4.5, page 75), I chose to conduct the study at the institution in which I am employed and in which I am registered as a PhD candidate: the National University of Ireland, Galway (NUI Galway).

Following is a detailed description of the research site. I provide a general overview of the university and then describe its funding, research, teaching, issues with respect to academic labour and gender, and institutional policy regarding open education. This rich description will facilitate later analysis of the agency of academic staff (with respect to OEP) in relation to the structural and cultural context of the university.

Overview

Ireland is a small country (population 4.5 million) with three main types of higher education institutions: universities, institutes of technology, and colleges of education. The National University of Ireland is one of Ireland’s seven universities; it was founded in 1845 as Queen’s College Galway. It is a research-focused, campus-based university offering undergraduate degrees, postgraduate degrees, and a wide range of part-time diplomas and degrees from 17 schools in five colleges (National University of Ireland, Galway, 2017):

- College of Arts, Social Sciences and Celtic Studies
- College of Business, Public Policy and Law
- College of Engineering and Informatics
- College of Medicine, Nursing and Health Sciences
- College of Science

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23 In addition, there is a growing for-profit, private sector, mainly in professional vocational training and business (Courtois, 2018; Department of Education and Skills, n.d.).
NUI Galway is considered a medium-sized institution with approximately 14,400 undergraduate students and 3,800 postgraduate students. There are approximately 2,100 staff: 730 academic staff, 560 contract researchers, and 820 support services staff (Higher Education Authority, 2017, p. 9).

The organisational structure of the university consists of three bodies: the governing authority (Údarás na hOllscoile), Academic Council, and University Management Team (UMT), led by the president. University presidents in Ireland enjoy positions of considerable power, likened to that of a CEO, typically serving terms of ten years (O’Connor, 2014). Despite its traditional academic governance structure, NUI Galway has moved towards a more formal managerial system over recent years (Guerrero, Urbano, Cunningham, & Organ, 2014).

**Funding**

Funding and policy advisory responsibilities for all HEIs in Ireland are vested in the Higher Education Authority (HEA). NUI Galway, like all universities in Ireland, relies on three primary sources of funding: state grant, tuition fees, and research grants and contracts. In addition, the Galway University Foundation (GUF) was established in 1998 to generate additional financial support for the university. Higher education funding, however, must be viewed in the context of the dramatic changes which have occurred in Ireland’s economy since the turn of the century. Over the course of the past eighteen years, the national economy has moved from a state of modest growth to unsustainable boom, sudden and dramatic collapse, recession, an extended period of austerity, and most recently, signs of a nascent and uneven recovery (Clarke, Drennan, Harmon, Hyde, & Politis, 2015; Slowey, 2012). During the period 2008 to 2014, state funding of higher education was cut by 37% (Courtois, 2018) resulting in reductions in spending across the board, including severe restrictions on hiring staff. During the same period, student enrolments rose by 20% (Courtois & O’Keefe, 2015). As a result, staff-student ratios declined dramatically: between 2008 and 2013, there was a 24.6% increase in the ratio of students to teaching staff in Irish universities (from 18.7 to 23.3) (Source: “Written answers: Third level data, Answer No. 252,” 2014). Decreases in state funding have led to increasing reliance on the other two pillars of higher education funding: tuition fees (particularly from international students) and research funding (Clarke et al., 2015). In 2014-15, NUI Galway had the highest proportion of international student enrolments amongst all Irish HEIs at 18.4% (Courtois, 2018), with a target to increase this to 25% by 2020 (National University of Ireland, Galway, 2015c).
Research

During these years of economic upheaval, the university focused heavily on expanding its research income base, which has increased accordingly: €30.5 million in 2003-04, increasing to €52 million in 2013-14, with plans for research income of €60 million by 2020 (National University of Ireland, Galway, 2015c). Also worth noting are the focal points of research funding. In parallel with the dramatic changes in economic and socio-political context, the overall mission of Ireland’s higher education sector has been framed increasingly in economic terms, e.g. building human capital, facilitating technological innovation, serving the needs of the market, and engaging in commercially useful research (Courtois, 2018; Courtois & O’Keefe, 2015; MacLaren, 2012; O’Connor, 2014). Together, the Irish government, the EU, and state-sponsored structures focus heavily on research in specific areas of science and technology as essential for economic growth. This is evident in the research priorities across the higher education sector, including at NUI Galway. While the strategic plan for the university (Vision 2020) cites research in the arts, culture, and human rights law, the “Our Research” section begins: “Our research is brimming with confidence and energised by continued success. We are increasingly counted among the best in the world in a number of priority areas,” foregrounding the university’s research in data analytics, biosciences, and medical devices (National University of Ireland, Galway, 2015c).

Teaching

Teaching and qualifications at NUI Galway, as at all Ireland’s HEIs, are aligned with the Bologna framework. All modules are specified in terms of European credit transfer units (ECTs). Most of the university’s courses and programmes are offered on campus, although an increasing number are offered in online and blended learning format. The university uses Blackboard, a well-known VLE, to support all courses, i.e. on campus, blended, and online. The Centre for Excellence in Learning and Teaching (CELT) provides professional development qualifications as well as a range of training for staff to support teaching throughout the university. In 2012, the HEA established the National Forum for the Enhancement of Teaching and Learning in Higher Education to provide infrastructural support for the teaching mission of all HEIs in Ireland.

Academic labour

One of the consequences of rising enrolments and decreased state funding has been accelerated casualisation within Irish higher education (Courtois & O’Keefe, 2015).

The extent of part-time and fixed-term employment is often difficult to determine, due to lack of accurate data and/or unwillingness to release such data. In 2015, an expert group was convened by the Department of Education and Skills to determine one aspect of casualisation: the extent of fixed-term and part-time employment in lecturing in higher education in Ireland. The expert group report, known as the Cush Report, was published in 2016 (Cush, 2016). Table 4.2 (page 81) draws on data from this report to summarise the situation at NUI Galway. In 2015, one-quarter (24.4%) of the 2422 lecturing staff employed by the university were employed on permanent, full-time contracts, and three-quarters (75.6%) were employed on part-time and/or fixed-term contracts. What is not clear from the data available is the proportion of the latter who were precariously employed, i.e. relying on fixed-term, part-time teaching as their main employment, versus the proportion who were employed elsewhere but undertaking part-time teaching contracts at the university (e.g. hospital consultants, professionals who deliver guest lectures, etc.). The Cush Report (2016, Table 1) did note, however, that 1646 of the 1659 individuals employed on fixed-term, part-time contracts were hourly paid; most of these contracts were for small amounts of teaching or teaching-related work (i.e. an average of 2 hours per week, or 9 hours per month).

In addition, the impact of austerity goes beyond economic strategies and structures. The language of research, teaching, and learning within higher education, in Ireland as elsewhere, has shifted:

> Both research and, critically, pedagogy are now governed by a language rooted in productivity and organisational development: ‘competitive advantage; ‘leverage’; ‘value-added service improvement’; ‘business process re-engineering’; and ‘business transformation’ (Hall & Bowles, 2016, p. 31)

The impact of pay cuts, the sharp decline in funding, a broad ‘austerity narrative’, and an audit culture has resulted in some academic staff feeling demoralised, demotivated, and undervalued. As noted by Clark, et al. (2017), the lived experience of austerity (Hitchen, 2016) shapes both day-to-day practices and future imaginaries.

**Gender**

The proportion of academic staff who are women at NUI Galway is 43% (Higher Education Authority, 2017). In the context of Ireland and Europe, NUI Galway is a consistently poor performer with respect to gender equality in relation to academic promotion and career progression. In 2009, Irish universities were rated to be nearly at the bottom of Europe’s glass ceiling index, a measure of the proportion of women employed at lower levels in relation to senior levels (Coate & Howson, 2016; O’Connor, 2014)\(^{25}\). Within Ireland, NUI Galway is rated at the bottom of the university

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\(^{25}\) More recent ‘glass ceiling index’ figures for Ireland are not available (Sheehy-Skeffington, 2016).
sector. While women represent 43% of academic staff at the university, they represent only 33% of senior lecturers, 13% of associate professors, and 12% of professors\textsuperscript{26} (Higher Education Authority, 2017, p. 9).

In a landmark gender equality case in 2014, Ireland’s Equality Tribunal found that NUI Galway had discriminated against Dr. Micheline Sheehy-Skeffington because of her gender (Higher Education Authority, 2016). Dr. Sheehy-Skeffington, a botany lecturer, brought her gender discrimination case to the Equality Tribunal following a promotion round in 2008/09 in which 16 men and just one woman were promoted to senior lecturer. Cases for a further four female lecturers (who also claim gender discrimination in the 2008/09 promotion process) continue to work their way through the Equality Tribunal system, and a fifth female lecturer is pursuing a gender discrimination case in the Labour Court (Siggins, 2017). The repercussions of the Equality Tribunal ruling and these ongoing gender discrimination cases continue. A working group was set up in 2011 to explore barriers to progression for female academic staff in NUI Galway, publishing their conclusions in a report, Academic Career Advancement in NUI Galway (Doherty & Cooke, 2011). Since 2011, further steps have been taken in an effort to address gender inequality and improve institutional culture at NUI Galway. These include setting up a Task Force on Gender Equality, appointing a Vice President for Equality and Diversity, developing a Gender Equality Action Plan, formation of a University Women’s Network, and establishing a university Equality and Diversity Campus Committee (A. Scott, 2017).

Policy regarding open education

At the time this research study was conducted, the NUIG Mission, Vision, and Values statements specifically mentioned valuing “openness, diversity and good citizenship” (National University of Ireland, Galway, 2015a). These statements remain the same today. In terms of institutional structure and culture with respect to openness, however, there were no policies or strategies related to open access publishing or OER at the time at which interviews were conducted for this study. Since the start of this research study, this has changed slightly. In October 2015, the university adopted a policy for Open Access to Research Outputs (National University of Ireland, Galway, 2015b), in part as a condition of funding for future research.

4.5 Research ethics

\textsuperscript{26}The grades of ‘associate professor’ and ‘professor’ are used in numerous reports in order to compare NUI Galway with other higher education institutions. However, at NUI Galway these two categories equate to the titles of ‘Personal Professor’ and ‘Established Professor’, respectively (National University of Ireland, Galway, 2016).
The primary ethical principles within the research process are to do no harm, to do good, and to acknowledge and respect the autonomy of the participants (Watts, 2006). Within these overarching principles, four broad ethical considerations were of particular importance for this study: (i) consent, confidentiality, and anonymity of participants, (ii) data management and data protection, (iii) trustworthiness, and (iv) researcher reflexivity and positionality. I reflected on these ethical considerations during the research design stage and throughout the study. I described these considerations in my application for ethical approval of the research study. My application was submitted to the Research Ethics Committee of NUI Galway on 13th February 2015 (see Appendix III); approval was received on 6th May 2015.

Consent, confidentiality, and anonymity

Informed consent from participants to participate in a research study is a central consideration for ethical research (British Educational Research Association, 2011). For interviews, I sought to ensure informed consent through the preparation and communication of two briefing documents: a Participant Information Sheet and Consent Form (Appendices III + IV). Both documents were sent to participants before each interview and discussed prior to the start of each interview. All participants provided signed consent. For the survey, information from the Participant Information Sheet was included in the introduction to the survey and an explicit question was asked regarding consent.

The research study was designed to ensure participant confidentiality and anonymity. Participants are identified in this dissertation by pseudonym (each participant approved the use of their particular pseudonym) and otherwise anonymously in related publications (Cronin, 2017a). After each interview was transcribed I sent the transcript to the participant, inviting her or him to delete, correct, or otherwise clarify their words and meanings, as well as to delete or amend any information that might identify them, should they wish to do so. My deliberate assurance of anonymity differs from some other open education studies. For example, in Stewart’s work on academic influence in scholarly networks on Twitter, participants are openly identified throughout (Stewart, 2015b, 2015a, 2016b), e.g. “participants all chose to be openly identified in the research by their public Twitter handle, with the exception of the one participant who withdrew” (Stewart, 2015b, p. 294).

My reasons for ensuring participants’ anonymity were twofold. Firstly, the study is not limited to open educators. Participants ranged from those who are open across a range of social and participatory media platforms, to those who guard their privacy very closely. Secondly, the study takes place at one university in Ireland – a fairly small community. Participants were invited to share their practices and values in relation to openness, but also how these practices and values ‘fit’ within their institutional and
disciplinary contexts. All participants gave their consent to participate in the study on the basis that their contributions would be anonymised. In one interview a participant reflected on this, differentiating between sharing his identifiable voice and sharing his thoughts and ideas anonymously: “Even this conversation that we’re having… if I knew that hundreds of people, potentially thousands of people, would hear this conversation, my responses are going to be profoundly influenced by that” (George). As a means of both doing no harm and respecting the autonomy of participants, their anonymity was and is assured.

Data management and data protection

Data from participants were gathered and created in multiple formats and locations throughout the study: digital audio recordings (from interviews), cloud-based proprietary applications (online questionnaires via SurveyMonkey), personal, licensed versions of proprietary applications (NVivo database), paper (consent forms and questionnaires), and documents created by me in the course of the study, cloud-based and on my own personal devices. All were managed to standards as specified in British Educational Research Association (2011) guidelines.

- **Electronic files** – All electronic files (e.g. documents, audio recordings, etc.) related to the study were stored on my desktop computer at NUI Galway; some also were stored on my laptop. Documents in relation to the thesis (i.e. chapter drafts and project plans) were shared with my supervisor via password-protected, non-public versions of Basecamp and Dropbox. Both computers were password protected and kept secure at all times (e.g. laptop was never left in my car or anywhere outside of my possession).

- **Audio recordings** – Digital audio recordings of all interviews were made on a portable audio recorder. Immediately after interviews were conducted, these recordings were uploaded to password-protected folders on my desktop computer (and erased from the recorder). I am the only person with access to these recordings.

- **Hard copies** – Some documents only existed in hard copy format, e.g. signed consent forms and some completed surveys. All of these documents were stored in a locked cupboard in my office (also locked) on campus. I am the only person with access to these documents.

- **Proprietary software programmes** – NVivo was used for organisation and analysis of interview-related data throughout the study. The application was loaded onto my laptop and desktop computers, available only via password access. I conducted the staff and student surveys using SurveyMonkey. All possible steps to ensure participant confidentiality were taken, e.g. IP addresses of participant computers were not recorded.
Trustworthiness

Trustworthiness is associated with authenticity, security, and confidence in the research findings (S. Jones et al., 2014). The traditional terms by which the quality and trustworthiness of research are assessed include reliability, validity, objectivity, and generalisability (Hammersley, 2000). Lincoln and Guba (1986) proposed alternative constructs relevant to qualitative research, i.e. credibility, dependability, confirmability, and transferability. Many researchers have drawn from and used Lincoln and Guba’s work in conducting qualitative research studies (Charmaz, 2014; Cohen et al., 2011; Creswell & Plano Clark, 2011; Hammersley, 2000; Keane, 2015; C. Marshall & Rossman, 2014; Strauss & Corbin, 1990). Relevant to this study, Charmaz (2014) adapted these qualitative constructs slightly for evaluating grounded theory research (I will return to these concepts in discussing the trustworthiness and quality of the findings in Chapter 8):

- **Credibility** – sufficient data and evidence for claims; logical links
- **Originality** – fresh categories; new insights; extending current ideas/concepts
- **Resonance** – portrays fullness of experience; offers insights to participants
- **Usefulness** – useful interpretations; sparks further research; clear contribution

To ensure that standards of trustworthiness are met, Guba and Lincoln (2005) proposed a set of procedures for researchers, all of which should be considered at the research design stage. These are:

- **Member checks** – share data and interpretations with participants;
- **Prolonged engagement** – engage in the research setting for an extended time;
- **Triangulate** – gather data from multiple sources, through multiple methods; and
- **Peer debriefing** – discuss emergent findings with critical friends to ensure analyses are grounded in the data.

Each of these steps was designed into this research study; specific details are described throughout this chapter. It was essential that such procedures were laid out during the design stage of the study. For example, the concept of member checks was discussed with participants during our interviews. Interview transcripts and emerging findings (at various stages) were shared with participants. Feedback was sought and received; the research results reflect this. These procedures ensure adherence to standards of trustworthiness and quality in undertaking the complex task of “assigning meaning to narrative (often drawn from interview transcripts) to offer explanation of social reality that cannot avoid being essentially interpretative” (Lincoln & Guba, 1986, p. 386).
Chapter 4. Research Design and Methodology

Reflexivity and positionality

A final important ethical consideration was reflexivity and my own positionality. In constructivist grounded theory, the researcher’s perspectives and priorities must be considered so that the resultant theory is grounded in both the participants’ and the researcher’s experiences; data and analysis are seen as social constructions reflecting both the participant and the researcher (Bryant & Charmaz, 2007a; Charmaz, 2011, 2014; Hallberg, 2006). Reflexivity includes researcher accountability in data collection and interpretation, but also reflection on “self, process, and representation” as well as examining power relations in relation to the research process (Sultana, 2007, p. 376). Being reflexive about one’s positionality is critically important for qualitative researchers wishing to undertake ethical research. Reflecting on my positionality included paying attention to how my own history intersected with this research study (Keane, 2015) and how others constructed my identity (Sultana, 2007).

Whatever the researcher position, our research is inevitably coloured (consciously and unconsciously) by our subjectivities and our social, historical, and cultural backgrounds (Hammersley, 2000). My positionality includes the fact that I am a member of staff at the university in which I am conducting research. Thus, I can be considered to be an insider researcher. My ‘insider’ status was somewhat limited, however, as I was not researching my own practice, my students, or my colleagues (Keane, 2015). Conducting insider research can be viewed as “wielding a double-edged sword” (Mercer, 2007, p. 7); it can afford potential advantages such as access, trust, and acceptance by participants (in my case, fellow staff members), but it can also present challenges. The task of insider researchers is to make the researcher's position transparent and to carry out the research in consciousness of its socially situated character (Dwyer & Buckle, 2009; Hammersley, 2000; Mercer, 2007; P. Rose, 1985).

In terms of my own position, I have been an open education practitioner for many years, using open educational practices as a lecturer, online facilitator, and academic coordinator of an online MSc programme – all at the university that is the research site. I have presented at university-based, national, and international conferences, given annual workshops on open education topics for academic staff in professional development workshops, and blogged and tweeted actively about my activities and ideas. While many potential participants in this study may have no knowledge of such activities, I had to consider that at least some participants would be aware of this.

27 For example, I had facilitated CELT workshops for staff and students on open education, digital identity, digital literacies, and learning and teaching with social media, and also had given keynotes at an NUIG symposium (2012), ‘Exploring open education; re-imagining higher education’ (Cronin, 2012), and the annual Irish EdTech Conference (2013), ‘On being an (open) educator’ (Cronin, 2013).
Indeed, my work as an open educator arose during some of the pilot interview conversations, as I recorded in a series of memos from different interviews:

After the interview, participant asked my views on digital practice and openness. I had not anticipated conversation about my open practice! In one sense, this reassures me about her/his level of comfort in the interview and the rapport established, but I’ll need to think carefully about assumptions/expectations of me for future interviews… (Memo, 21 January 2015)

Participant noted that s/he was somewhat guilty about her/his lack of online presence. I don’t want to be seen as someone who expects, or worse – judges – open practice (or the lack of it). Today, I reassured… but I’ll need to be very clear that I am not interviewing as Catherine Cronin ‘open educator’, but as Catherine Cronin ‘researcher of open education’. (Memo, 13 January 2015)

I’ll need to reflect carefully about my own potential value judgements re: openness and open education, and how I introduce myself and my position as an open education researcher. (Memo, 4 November 2014)

I became aware during these pilot interviews that I would need to communicate explicitly with participants about my standpoint for this research, i.e. that my interest in open education grew out of my open educational practice but that my role in this research study was as a critical and interpretive researcher in the field of open education. I had spent time before and after registering for my PhD reflecting on my transition from open education practitioner (and advocate) to critical researcher, e.g. in this blog post (Cronin, 2014):

It’s not just my schedule that must be negotiated, but my own identities. Every day the balance is slightly different: dividing my hours and energies between teaching, student and facilitator support, programme management, learning, and research. For the past few years, this blog has provided an invaluable space for sharing ideas and questions related to learning and teaching, for thinking-through by writing, and for connecting. Up to this point, I’ve been happy to share my learning and to share my teaching experiences. So where does “researcher me” fit?

…where am I now? I’m enthusiastically continuing my research and also reflecting on my identity as a hybrid scholar. This reflexivity seems important, given the nature of my research. I am comfortable as an open and networked learner and educator, and still in a liminal space as an open researcher. This blog post is another step in developing that identity and opening myself to new creative possibilities. As Michael Gallagher expressed in his beautifully written blog post Ideas and identities in liminality28, creativity springs from ambiguous states; liminality is a “generative state of being”.

I continued these reflections in my memo-writing and blogging as the research study progressed, reflecting on my awareness of my own bias and positionality (Bridges, et al, 2007). I came to accept that my unique positionality was not something to deny or
to mask, but one to share with participants and to reflect upon throughout all stages of the research process:

My positionality meets the positionality of participants, and they do not rest in juxtaposition to each other. The research in which I engage is shaped by who I am, and as long as I remain reflective throughout the process, I will be shaped by it, and by those with whom I interact. (Bourke, 2014, p. 7):

My aim throughout was to be honest in my discussions with participants, acknowledging my existing knowledge and practice in the area of open education, but also to highlight my role as a critical-interpretive researcher of OEP for the purposes of this research. Insider or outsider status is not the primary concern, but rather the ability to be “open, authentic, honest, deeply interested in the experience of one’s research participants, and committed to accurately and adequately representing their experience” (Dwyer & Buckle, 2009, p. 59).

4.6 Phase I. Interviews with academic staff

Phase I comprised the first and core phase of the study: interviews with academic staff. The purpose was to explore research questions 1-3, i.e. to find out whether, why, and how academic staff used open educational practices (if at all) for teaching, and to identify shared characteristics (if any) of open educators. Figure 4.2 shows the scope of Phase I in relation to the full study.

The intended outcome of Phase I was development of an emergent grounded theory (Charmaz, 2014) describing interpretive understandings of participants’ situated practices, motives, and values with respect to using OEP for teaching. Phase II enabled further description and refinement of this emergent grounded theory. Phase I is thus the core phase of the research study.
4.6.1 Design of Phase I

I aimed to gather data from as wide a range of academic staff as possible, ensuring that participants represented a broad spectrum of ‘less open’ to ‘more open’ practices. The terms ‘open’, ‘open education’, and ‘open educational practices’ have many different interpretations, thus to ask academic staff directly about their ‘open practices’ would not be likely to yield meaningful results. In order to explore the individual meanings of ‘open’, I chose simply to ask participants about the online tools and spaces they used for research, learning, and teaching. Where open tools, spaces, and/or practices were mentioned, I could explore these avenues further in order to build a picture of academic staff meaning-making and decision-making regarding open educational practices. In addition to diversity of practices across a continuum of openness, I also sought to ensure participant diversity across three further factors that might influence whether, why, and how academic staff used OEP: gender, discipline area, and employment status.

i) Gender

The proportion of academic staff who are women at NUI Galway is 43%, although as noted previously, women represent only 33% of senior lecturers, 13% of associate professors, and 12% of professors29 (Higher Education Authority, 2017, p. 9). I sought to ensure at least 43% participation of female participants in the study. This decision was not simply to ensure that the gender breakdown of participants would closely match the population at the research site. I also wanted to ensure that analysis of all findings, by gender, could be undertaken.

ii) Discipline area

A considerable body of research explores the distinctive cultural characteristics of different disciplines within higher education. Biglan’s (1973) typology, further developed by Becher (1994) and others, is used as a basis for much of this work. Biglan’s typology (see Figure 4.3) considered disciplines along two dimensions: the degree to which a paradigm exists (Hard/Soft) and the degree of focus on practical application (Pure/Applied) (Biglan, 1973).

Building on Biglan’s typology, Becher (1994) used the anthropological concept of “academic tribes” to explore the traditions and cultures within different disciplines arising from differences in epistemological beliefs and knowledge structures (Becher, 2016).

29 The grades of ‘associate professor’ and ‘professor’ are used in numerous reports in order to compare NUI Galway with other higher education institutions. However, at NUI Galway these two categories equate to the titles of ‘Personal Professor’ and ‘Established Professor’, respectively (National University of Ireland, Galway, 2016).
1994; Becher & Trowler, 2001; Lindblom-Yläne, Trigwell, Nevgi, & Ashwin, 2006; Neumann, Parry, & Becher, 2002; Ylijoki, 2013). The most significant differences across disciplines appear in the Hard/Soft dimension rather than the Pure/Applied dimension (Lueddeke, 2003; Neumann et al., 2002), thus a simple binary opposition is used in most studies: comparing ‘hard’ disciplines (e.g. sciences, technology) with ‘soft’ disciplines (e.g. arts, education, business).

The Becher-Biglan framework has been developed further by other theorists and applied in many domains of educational research to explore discipline-related differences (e.g. Coughlan & Perryman, 2011). Trigwell and Prosser (1996, 2004) established a congruence between university teachers’ intentions and their teaching strategies; teachers focused on facilitating conceptual change used more student-focused strategies, while teachers focused on transmitting knowledge used more teacher-focused strategies. Empirical studies by Lueddeke (2003, in the UK) and Lindblom-Yläne et al. (2006, in Finland and the UK) mapped Trigwell and Prosser’s findings onto the Becher-Biglan framework. Teachers in ‘hard’ disciplines were found to be more likely to view teaching as information transfer (associated with behaviourist learning principles) and thus to use more teacher-focused strategies. Teachers in ‘soft’ disciplines were found to focus more on conceptual change and knowledge construction (aligned with a constructivist philosophy), to be interested in adopting interactive (vs. didactic) approaches, and to use more student-focused principles.

![Figure 4.3 Typology of Disciplines (based on Biglan (1973) and Becher (1994))](image)

The Becher-Biglan framework is not universally applicable. Some disciplines may bridge the Hard/Soft divide to a greater extent than others (e.g. Law) and the framework is not useful when considering interdisciplinary programmes (e.g. Digital Media, Design Engineering). However, the overall relevance of discipline (or at least broad discipline area) to teaching strategies and approaches has been well established. As the focus of this study is on the use of OEP for teaching, discipline area is considered as a category of analysis. I adopt the simpler binary division of disciplines, rather than the
four categories. The breakdown of disciplines\textsuperscript{30} at NUI Galway into ‘hard’ STEM (Science, Technology, Engineering, Mathematics and Medicine) disciplines and ‘soft’ ASSBL (Arts, Social Science, Business and Law) disciplines is shown in Table 4.1.

\textbf{Table 4.1 Discipline Groups}

<table>
<thead>
<tr>
<th>Group 1. STEMM</th>
<th>Group 2. ASSBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Engineering</td>
<td>• Arts</td>
</tr>
<tr>
<td>• Science</td>
<td>• Social Science</td>
</tr>
<tr>
<td>• IT and Computer Science</td>
<td>• Business and Public Policy</td>
</tr>
<tr>
<td>• Mathematics</td>
<td>• Law</td>
</tr>
<tr>
<td>• Medicine, Nursing and Health Sciences</td>
<td></td>
</tr>
</tbody>
</table>

\textit{iii) Employment status}

Within this research study, ‘academic staff’ refers to individuals employed by the university with responsibility for teaching undergraduate students, regardless of the nature of their contract: full-time or part-time; permanent or fixed-term. Those identified as academic staff also may teach postgraduate students and adult learners, and also may be engaged in research. An important aim of this study was to include the voices and perspectives of academic staff who were employed on traditional permanent, full-time contracts, as well as those who were not. Data from the Cush Report (2016) shows the breakdown of lecturing staff at NUI Galway employed on various types of contracts (see Table 4.2). It seemed unreasonable, however, to use raw headcount numbers to determine the proportion of fixed-term and/or part-time staff to include in the study. In examining the data in full-time equivalent (FTE) terms, the number of academic staff employed on part-time and/or fixed-term contracts was 140.67 and the proportion was 19.3\%, or approximately one-fifth of all lecturing staff (Cush Report, 2016, Appendix 2, Table 3). Based on this data, I aimed to invite participants from all categories of employment, with a goal of having approximately one-fifth of participants in the ‘fixed-term and/or part-time’ category.

While it is useful to examine gender, discipline area, and employment status in isolation, in lived experience, of course, there are overlapping and interrelated effects. For example, while the majority of both female and male academic staff are employed on permanent, full-time contracts, a larger majority of men (87\%) than women (78\%) are employed on permanent academic contracts, with 17\% of women compared with 11\% of men employed on fixed-term academic contracts (A. Scott, 2017, Table 3.2.13). In addition, while women represent 43\% of academic staff at the university (Higher

\textsuperscript{30} This is also the categorisation of ‘constituencies’ used within the university for academic promotions.
Education Authority, 2017, p. 9), they comprise just 13% of academic staff in the College of Engineering and Informatics, 13% in the School of Chemistry, 16% in the School of Mathematics, and 25% in the School of Physics (A. Scott, 2017, Table 3.2.3). Where effects due to gender, discipline area, and/or employment status are found during the analysis, interrelated effects will be considered.

### Table 4.2 NUIG Lecturing Staff Headcount, Q3 2015. Source: Cush Report (2016)

<table>
<thead>
<tr>
<th></th>
<th>Permanent</th>
<th>Fixed-Term</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time</td>
<td>590</td>
<td>13</td>
<td>603</td>
</tr>
<tr>
<td></td>
<td>24.4%</td>
<td>0.5%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Part-Time</td>
<td>160</td>
<td>1659</td>
<td>1819</td>
</tr>
<tr>
<td></td>
<td>6.6%</td>
<td>68.5%</td>
<td>75.1%</td>
</tr>
<tr>
<td>Σ</td>
<td>750</td>
<td>1672</td>
<td>2422</td>
</tr>
<tr>
<td></td>
<td>31.0%</td>
<td>69.0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### 4.6.2 Pilot study

A small pilot was conducted in November/December 2014 and January 2015. The aim was to test, refine, and obtain feedback from academic staff on the developing interview schedule (“Interview Schedule,” 2004). Five members of academic staff were invited to participate. Each was someone known to me in the course of my work at the university. Each provided written consent (via email) to participate in a pilot interview. The pilot participants represented diversity across gender, discipline area, and employment status (see Table 4.3). At the start of each interview I reiterated the overall subject of the study and the purpose of the pilot, i.e. to trial the interview schedule and to obtain feedback from participants to help me to revise the schedule for use in the full study. I explained that I would ask questions in three areas: (i) their digital practices for learning, research, and teaching; (ii) their practices and thoughts about their online presence and digital identities; and (iii) their knowledge and thoughts about their students’ use of social media. Each pilot participant was invited and encouraged to ask questions and offer suggestions, both during and after the interview.

### Table 4.3 Phase I Pilot Participants

<table>
<thead>
<tr>
<th>Gender</th>
<th>Discipline area</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Female</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>2 Female</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>3 Male</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>4 Male</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>5 Female</td>
<td>STEMM</td>
<td>Fixed-term, Part-time</td>
</tr>
</tbody>
</table>
These interviews were not audio recorded. I requested permission from each participant to take notes during the interview; all agreed to this. Immediately after each interview I wrote detailed memos: summarising my notes from the interview, writing my own reflections, and noting what I would do differently for subsequent interviews. The interview schedule evolved considerably over the course of the pilot interviews and the interviews provided an opportunity for me to reflect on my own role and on my techniques as an interviewer: recognising shortcomings and working to improve upon these. For example: “I was better at being a listener and probing for detail during this interview” (Memo, 21 January 2015). I have experience as an interviewer from previous research projects, hiring interviews, and other activities. However, there was much more to be aware of than just interview techniques, although these were important. Overall, the pilot interviews provided an opportunity for me to reflect also on my positionality as both a critical interpretive researcher and an open education practitioner. The pilot concluded, I proceeded to undertake interviews with academic staff, beginning with selecting participants.

4.6.1 Academic staff participants

Selecting and contacting academic staff participants for the full study

Grounded theory studies use a range of sampling techniques. The total number of participants is not predetermined; it is determined by theoretical saturation of the emerging theory. All sampling in grounded theory methodology is considered to be non-probability sampling, i.e. the researcher selects a particular section of a population to include or exclude from the study (Cohen et al., 2011). Grounded theory studies typically begin with convenience sampling; this helps to define the scope of the phenomenon under study, the boundaries, and the trajectory of the process (Morse, 2007). After initial data analysis, purposeful sampling is used to locate and include additional participants with particular characteristics of interest in the study (Breckenridge et al., 2012; Morse, 2007). Finally, after continued data analysis, grounded theorists utilise theoretical sampling in order to elaborate and refine the emerging categories (Charmaz, 2014; Glaser & Strauss, 1967). Each is described in detail below.

I used convenience sampling initially to begin to gather data to explore a range of experiences of academic staff with respect to open practices. Firstly, I randomly selected names of academic staff members from the current directory in order to assemble a master list of names, equally divided by discipline group and by gender, and representing staff at all levels from contract lecturer to professor. Secondly, I prepared an invitation to participate in my research study to be sent to all CELT
Assesses at the university. CELT Associates are members of academic staff who have taken professional development courses in the Centre for Excellence in Learning and Teaching (CELT) at NUI Galway. CELT professional development options include individual modules, a Postgraduate Certificate in Teaching and Learning, a Postgraduate Diploma in Academic Practice, and an MA in Academic Practice. Thus, my list of potential participants was designed to include academic staff who were known to have participated in professional development courses related to teaching and learning within the past ten years, and academic staff who may or may not have participated in professional development related to teaching and learning.

In my invitation (see Appendix VI) I explained that I was requesting participation from a range of academic staff to explore their use of digital and open tools. I invited individuals to put their name forward as volunteer participants, but explained that not all volunteers would necessarily be invited to participate:

I plan to interview a broad range of academic staff across disciplines, levels, and employment status (e.g. full-time, part-time, adjunct). I also would like to speak with staff with various levels of online engagement — ranging from pragmatic users of few online tools to those negotiating a broad web of academic and social networking sites. As I am looking to interview a diverse range of participants, it is possible that I will not be able to interview all volunteers. However, I will confirm arrangements with you as soon as possible.

I selected the first five members of academic staff who responded to my invitation to participate. I invited each participant via email, including the Participant Information Sheet and Consent Form. After the first five interviews, I progressed to using purposeful sampling (Breckenridge et al., 2012; Morse, 2007) to maximise representation across the three categories: gender, discipline area, and employment status. I invited participants in order to maintain a roughly equal representation of female and male participants, and participants from the two broad discipline areas: STEMM and ASSBL. In addition, I sought to ensure at least one-fifth of participants would be those who worked on part-time and/or fixed-term contracts. Later in the interviewing and analysis process, participants were selected using theoretical sampling, a process whereby data is jointly collected, coded and analysed so the researcher can decide what data to search for and to collect next in order to saturate each emerging category/concept (Charmaz, 2014; Glaser & Strauss, 1967; Hallberg, 2006). This is explored further later in this section.

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31 I did not have access to the list of names of CELT Associates, but the director of CELT (also my PhD supervisor) forwarded my invitation to this mailing list.
Description of academic staff participants

A total of nineteen members of academic staff participated. A detailed breakdown of each of the participants, across the three categories, is shown in Table 4.4.

Table 4.4 Phase I Participants

<table>
<thead>
<tr>
<th>Name (Pseudonym)</th>
<th>Gender</th>
<th>Discipline area</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Chris</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>2 David</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>3 Michelle</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>4 Matthew</td>
<td>Male</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>5 Joe</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>6 Hannah</td>
<td>Female</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>7 Barbara</td>
<td>Female</td>
<td>ASSBL</td>
<td>Fixed-term, Part-time</td>
</tr>
<tr>
<td>8 Vincent</td>
<td>Male</td>
<td>ASSBL</td>
<td>Fixed-term, Part-time</td>
</tr>
<tr>
<td>9 Al</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>10 Carol</td>
<td>Female</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>11 Paul</td>
<td>Male</td>
<td>ASSBL</td>
<td>Fixed-term, Full-time</td>
</tr>
<tr>
<td>12 Thomas</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>13 Ed</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>14 Ruth</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>15 Mary</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>16 Malcolm</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>17 Diane</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>18 Alice</td>
<td>Female</td>
<td>STEMM</td>
<td>Fixed-term, Full-time</td>
</tr>
<tr>
<td>19 George</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
</tbody>
</table>

In summary, for Phase I, there were nine female (47%) and ten male (53%) participants; seven in STEMM disciplines (37%) and 12 in ASSBL disciplines (63%). In addition, 15 of the participants were employed on permanent, full-time contracts (79%), while four were employed on contracts which were not permanent and full-time (21%) (see Figure 4.4).

Figure 4.4 Phase I Participants: Gender, Discipline Area, Employment Status
4.6.2 Data collection and analysis

Interviews

Using a semi-structured interview protocol (see Appendix VII), I interviewed all nineteen participants, face-to-face, between July and December 2015. I asked questions about their research, teaching, use of the VLE, digital identities, use of social media, and knowledge and thoughts about students’ use of social media. Beyond this, however, I sought to explore the subjective experience of participants through more open questions, usually framed by words such as ‘how would you describe’, ‘what was your experience’, or ‘can you tell me about’. I then shaped my questions in order to explore interesting leads and unpack taken-for-granted meanings. As Charmaz (2014) notes, in constructivist grounded theory “the interview becomes more than a performance; instead it is a site of exploration, emergent understandings, legitimation of identity, and validation of experience” (p. 91).

With the permission of the participants, all interviews were audio-recorded. Each interview lasted approximately one hour (ranging between 45 and 80 minutes). In accordance with the constructivist grounded theory approach, I wrote memos immediately after each interview to record the location, length and context of the interview, as well as my thoughts in response to each participant’s contributions. Within 24 hours of each interview I emailed the participant with my thanks. In a few cases, I also sent links to resources to follow up on specific questions or topics which had arisen during the interview.

I transcribed each interview as soon as possible after the interview using the online transcription tool oTranscribe. A one-hour interview took me approximately 4 hours to transcribe. All interviews were transcribed within three weeks, most within one week. Following transcription of each interview, I emailed the transcript to each participant. I invited them to review it and to add or change anything they wished, in order to be sure that each person was satisfied that their words and intended meanings were fairly and accurately represented in the transcript. Three participants made minor changes or suggestions to their transcripts. All additions and changes were incorporated into the transcript records. In addition, fifteen participants returned specific comments related to the interview, e.g. mentions that they had enjoyed the interview, their reflections and/or actions after the interview, and wishing me luck with the research study.

Data were analysed in an iterative manner, using constructivist grounded theory concepts of coding (evolving from open to focused to theoretical codes), the constant

32 http://otranscribe.com
comparative method, theoretical sampling, and memo-writing. Qualitative analysis software was used to assist the process. Based on participants’ comments, the developing codes, and early analysis, the interview questions evolved considerably. The interview schedule was not the same at the end of the 19 interviews as it was at the start; nor should it have been expected to be (Charmaz, 2014).

Open coding

Coding is the core method of all grounded theory. Coding requires the researcher to stop and ask questions of the data from the very start of data gathering. At its simplest, coding refers to the process of “naming segments of data with a label that simultaneously categorises, summarises, and accounts for each piece of data” (Charmaz, 2014, p. 111). In grounded theory, coding does not begin from a set of themes. Codes, categories, and themes emerge from the process of analysing the data. Thus, coding is the link between the data and the developing theory. The first stage of coding, initial or open coding, involves close reading of transcripts and data, literally through line-by-line coding. The emphasis at this stage is on coding for social processes observed in the data itself or during the data gathering process.

I did open coding for the first few interviews by hand, line by line. This entailed breaking the data into fragments in order to identify processes and provisional concepts. I adopted the grounded theory approach of coding using gerunds (the noun form of verbs) so as to focus on implicit processes and meanings. After the first four interviews, the emerging list of codes looked like this:

- Valuing student interaction and engagement
- Encouraging student choice and autonomy
- Experiencing conflict between teaching values and teaching practices
- Changing teaching to be more interactive after taking CELT course
- Valuing, requesting, and being guided by student feedback
- Showing self as learner
- Creating a safe space for learning
- Feeling overwhelmed by time pressures
- Feeling overwhelmed by pace of change
- Feeling the need to have a better online presence
- Using only basic functions of VLE
- Not having enough time to learn more about VLE or EdTech
- Wanting to preserve Staff/Student boundary
- Wanting to preserve Personal/Professional boundary
- Wary of moving all teaching activities online
- Being suspicious of third-party use of data
- Teaching students about social media and being a professional
• Wanting to share materials
• Wanting to be attributed but not understanding Creative Commons
• Wanting more awareness re: digital identity, for self and students
• Would like discipline support/forum for discussing teaching and learning
• Observing issues re: students’ digital literacy/digital identity

I also wrote detailed memos throughout the data gathering and analysis process. Memo-writing is a key feature in grounded theory (Charmaz, 2006, 2014; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Hallberg, 2006, Jones et al., 2014; Strauss & Corbin, 1990), instrumental in understanding and conceptualising the data. Lempert (2007) suggests of memo-writing:

It is the fundamental process of researcher/data engagement that results in a ‘grounded’ theory. Memo-writing is the methodological link, the distillation process, through which the researcher translates data into theory. (p. 245, emphasis in original)

Memos are typically written in the form of ‘conversations with oneself’ and can be written at any level of abstraction, capturing items such as social context, tentative meanings, doubts, questions to consider, assumed associations, and theoretical reflections. Memos that I wrote following the early interviews helped me to record observations, notice similarities and differences, highlight avenues for further analysis, and refine my questions for subsequent interviews. For example:

*I’ve heard a familiar refrain throughout the first four interviews: “I want to keep the professional and private separate”. I need to ask ‘why’ when people say this. Is this based on what people think a lecturer should do/be? Is it based on preserving personal privacy? Or perhaps a combination of these? It may be difficult to simply ask ‘why’ when participants say this… I’ll need to find a way to ask this in a sensitive manner. I sense that this is an important finding. So far, it seems to connect the participants who do not use OEP.* (Memo, 5 August 2015)

*Participant is the least ‘connected’ of the educators I’ve spoken with so far, e.g. no Facebook, no Twitter. Participant’s rationale is twofold: fear and lack of time. Some of her family members have had bad experiences with social media and, as a result, she takes a very cautious view. But—and it is a big but—she sees more students using social media and thinks there may be opportunities to use social media in her research and teaching.* (Memo, 6 August 2015)

*I was surprised at the strength of her views re: digital natives. This was strongest when talking about different family members—all younger— who she sees as having very different attitudes towards privacy than she or other “older people” have.* (Memo, 6 August 2015)

*What is overwhelming in my research so far is the diversity of choices driven by similar motivation. Nearly every participant describes being motivated by trying to be the best teacher they can be, e.g. helping students with learning, navigating sources, reading critically, critical thinking, expressing themselves – in speaking and in writing. Yet, each participant makes different choices re: their use of open practices. For example, social media use ranges from no social media whatsoever, listening/reading only, little interaction, lively interaction, using social media for teaching.* (Memo, 20 August 2015)
I continued to conduct interviews, immerse myself in the transcripts and codes, and to write memos as the interviews progressed. I developed additional codes and identified an emerging list of categories associated with those codes (see Table 4.5).

Table 4.5 Emerging Categories and Codes (after open coding)

<table>
<thead>
<tr>
<th>Using Blackboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Blackboard to post lecture notes</td>
</tr>
<tr>
<td>Using Blackboard to post other resources</td>
</tr>
<tr>
<td>Using Blackboard Grade Centre</td>
</tr>
<tr>
<td>Using Blackboard quizzes/MCQs</td>
</tr>
<tr>
<td>Trying to use Blackboard interactively</td>
</tr>
<tr>
<td>Judging own Blackboard use as conservative</td>
</tr>
<tr>
<td>Choosing to use sites other than Blackboard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communicating with students</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Teaching to engage students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionally moving away from lecture mode</td>
</tr>
<tr>
<td>Facilitating discussion</td>
</tr>
<tr>
<td>Encouraging project work, PBL and lab work</td>
</tr>
<tr>
<td>Valuing feedback (teacher-student / student-teacher / student peers)</td>
</tr>
<tr>
<td>Encouraging student choice</td>
</tr>
<tr>
<td>Creating safe space for learning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experiencing pressure and/or anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having large classes</td>
</tr>
<tr>
<td>Un-training first-year undergraduates</td>
</tr>
<tr>
<td>Other pressures/anxiety</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Awareness of wider sociotechnical changes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Open resources and open practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing own resources</td>
</tr>
<tr>
<td>Sharing others’ resources</td>
</tr>
<tr>
<td>Awareness of others’ open practices</td>
</tr>
<tr>
<td>Awareness of copyright/Creative Commons issues</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Awareness of students’ use of social media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing students are active on social media</td>
</tr>
<tr>
<td>Knowing about student Facebook groups</td>
</tr>
<tr>
<td>Students’ expectations of lecturers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Describing own behaviour and values re: social media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media use (general / Facebook / Twitter)</td>
</tr>
<tr>
<td>Questioning authenticity of others</td>
</tr>
<tr>
<td>Valuing privacy</td>
</tr>
<tr>
<td>Wanting boundary between self and students</td>
</tr>
<tr>
<td>Wanting boundary between personal and professional</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analogue practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferring marking on paper</td>
</tr>
<tr>
<td>Preferring buying books and visiting bookshops</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital literacies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of corporate practices regarding data, privacy, surveillance, etc.</td>
</tr>
<tr>
<td>Teaching/advising students re: digital literacies</td>
</tr>
<tr>
<td>Teaching/advising students re: social media</td>
</tr>
</tbody>
</table>
Observing students’ social media practices

**Digital identity**
- Sense of own digital identity
- Having a digital hub

**Research practices**
- Using online journals
- Using Google and Google Scholar
- Using Academia.edu and ResearchGate

**Training and support for teaching**
- Describing CELT courses
- Taking MOOCs
- Wanting opportunities for discussion/support

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**Focused coding**

After open coding, my analysis progressed to *focused coding*. Focused coding entails identifying codes that are frequent or appear to be significant. This is done using the *constant comparative method*, the heart of data analysis in grounded theory. Charmaz (2006, 2015) defines the constant comparative method as a method of analysis that generates successively more abstract concepts and theories through inductive processes of comparing data with data, data with codes, codes with codes, codes with categories, categories with categories, etc.

After transcribing and coding 14 interviews, I created an online database of interview data using NVivo in order to assist with data management and analysis. This involved cleaning the interview transcript data, building the database in NVivo, and coding all of the interview data using the initial coding scheme (Table 4.5, page 88). While recoding the transcripts within NVivo, I edited, added, and grouped codes, based on a deeper consideration of the data. This process enabled me to take an “analytic turn” as focused codes became richer and more integrative (Jones et al., 2014, p. 80). The aim throughout all stages was on emergent meanings through a process of cyclical data gathering and analysis. I created a preliminary coding structure, identifying major categories and codes (see Table 4.6).
Table 4.6 Emerging Categories and Codes (after focused coding)

<table>
<thead>
<tr>
<th>CONCEPT</th>
<th>CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital identity</td>
<td>Having sense of own digital identity&lt;br&gt;Having own digital hub&lt;br&gt;Sense of being a public scholar</td>
</tr>
<tr>
<td>Digital literacies</td>
<td>Describing own digital literacies&lt;br&gt;Teaching students about digital literacies&lt;br&gt;Awareness of wider sociotechnical changes and corporate practices&lt;br&gt;Using digital natives discourse</td>
</tr>
<tr>
<td>Teaching practices</td>
<td>Encouraging project work and teamwork&lt;br&gt;Encouraging student choice and agency&lt;br&gt;Facilitating discussion&lt;br&gt;Creating safe space&lt;br&gt;Teaching with digital tools and resources&lt;br&gt;Intentionally moving away from lecturing</td>
</tr>
<tr>
<td>Teaching values</td>
<td>Valuing feedback&lt;br&gt;Valuing cognitive and content learning&lt;br&gt;Valuing social and peer learning&lt;br&gt;Describing self as social learner&lt;br&gt;Experiencing challenges with social/open learning&lt;br&gt;Believing teaching environment should be closed&lt;br&gt;Believing teaching environment should be open</td>
</tr>
<tr>
<td>Open resources and open practices</td>
<td>Awareness of copyright and Creative Commons&lt;br&gt;Sharing open resources&lt;br&gt;Awareness of others’ open practices&lt;br&gt;Considering own use of open practices&lt;br&gt;Own use of social media (for learning, research, teaching)&lt;br&gt;Awareness of students’ use of social media</td>
</tr>
<tr>
<td>Valuing privacy</td>
<td>Wanting Personal-Professional boundary&lt;br&gt;Wanting Self-Student boundary&lt;br&gt;Valuing privacy, in general</td>
</tr>
<tr>
<td>Experiencing pressure or anxiety</td>
<td>Teaching large classes&lt;br&gt;Not having enough time&lt;br&gt;Dealing with too much information&lt;br&gt;Feeling compromised&lt;br&gt;Experiencing status-related issues&lt;br&gt;Wanting more support for teaching&lt;br&gt;Dealing with university guidelines</td>
</tr>
<tr>
<td>Use of VLE</td>
<td>Posting lecture notes&lt;br&gt;Posting/sharing other resources&lt;br&gt;Using Blackboard email&lt;br&gt;Using interactive features on Blackboard&lt;br&gt;Describing own Blackboard use as conservative&lt;br&gt;Choosing to use sites other than Blackboard</td>
</tr>
</tbody>
</table>

Although still gathering data, I identified and mapped key concepts related to the use of OEP including digital identity, digital literacies, digital engagement, openness, and experiencing tension/anxiety. I shared these interim findings at the Digital Learning Research Network conference (Cronin, 2015a), gaining valuable feedback. At this
stage of analysis, I progressed to using theoretical sampling, a process Kathy Charmaz has called “the most misunderstood concept in grounded theory” (Charmaz, 2015).

**Theoretical sampling**

In essence, theoretical sampling is the process whereby data is jointly collected, coded and analysed so the researcher can decide what data to search for and to collect next in order to “saturate” or fully define each emerging category/concept (Charmaz, 2014; Glaser & Strauss, 1967; Hallberg, 2006). The point of data saturation is reached when no new codes, categories, themes, or properties emerge. Grounded theory researchers seek to saturate their constructs fully:

> Saturation is a critical concept in grounded theory and is based on a subjective decision: actually, you can never know if further interviewing would give more information. Therefore, it is important not to start theoretical sampling too early in the data collection process. Rather, the researcher should continue open sampling to maximize variations, and theoretical sampling should be used late in the process. (Hallberg, 2006)

After conducting 14 interviews, analysing the data, and summarising key themes, I felt confident that emerging categories were grounded in the data and addressing the research questions. However, a majority of participants up to this point did not use OEP, or did not use OEP extensively. I was building a clear picture of educators who chose not to use OEP, but I did not yet have robust descriptions of the range of networking practices, teaching practices, and values of open educators. While this relatively small proportion of open educators may have been indicative of their representation in the wider university population, I nevertheless required additional data in order to develop thick descriptions of the practices of educators who used OEP.

In the last two months of 2015, I searched specifically for educators who used OEP. I conducted five additional interviews, concluding the interviews for Phase I of the study (summarised in Table 4.4, page 84).

Grounded theory is an iterative and comparative method so I immersed myself once again in the data: re-reading transcripts, re-listening to interview segments, and exploring similarities, differences, and links between codes, categories, and participants. I continued to refine the emerging categories. In grounded theory it is important to see how each case fits with the emerging theory (Bringer, Johnston, & Brackenridge, 2006). I also examined cases which did not fit my emerging analysis, the so-called negative cases (Bringer et al., 2006) or divergent views (Bazeley, 2009), in order to increase my understanding and to improve my theorising. In memos, I outlined specific plans for this analysis:

> I am going to explore (at least 3) cases, one member of staff who is using open educational practices, one who is at the border of using/not using, and one who is clearly not using OEP. I’ll do a case study of each of these exploring various aspects of their use of online tools and spaces. (Memo, 5 February 2016)
A few academic staff are willing to have a porous border between their personal and professional online activities, but not many. What facilitates this movement in individuals? It appears to be a combination of a few things: seeing oneself as learner; being part of a personal learning network; having developed online networking skills; wanting to share benefits of wider networks with students; and wanting to democratize participation and learning. This links with Veletsianos (2012) finding re: networked participatory scholarship, i.e. educators’ open practices are a “precondition” for teaching and designing open learning activities. (Memo, 10 December 2015)

During this stage of analysis, I struggled at times to make sense of the data. I worked within NVivo, but I also worked away from NVivo, creating sketches of tentative models and diagrams. The final stage of analysis for Phase I was creating and defining theoretical codes or categories, beginning to form the basis for the emerging grounded theory. I identified six main categories in the data, including the core category ‘Using open educational practices for teaching’ (see also Table 4.7):

1. Using open educational practices for teaching [CORE CATEGORY]
2. Balancing privacy and openness
3. Developing digital literacies
4. Valuing social learning
5. Challenging traditional teaching role expectations
6. Experiencing tension and/or anxiety

Finally, as part of steps taken to ensure the trustworthiness of the emerging codes and analysis, I exchanged two anonymous transcripts each with two other grounded theory researchers. I undertook this step in order to challenge my own conceptions of codes, processes, and concepts. This proved to be useful in several ways. Firstly, it confirmed ideas and codes that had arisen in my own analysis, e.g. in this example of participants negotiating openness: “This person [interview participant] is balancing the ‘good’ and the ‘bad’ of digital and open practice – negotiating, then giving in, finding and connecting with the good” (Reviewer 1). Secondly, it extended my thinking about ideas for further analysis, e.g.:

The two interviews are very different. For #1 the figure or weight of the institution is significant, more than for #2. I wonder how the structure (HEI) constrains learning, experimenting and playing with new stuff, constraining the agency in open and unbounded places. (Reviewer 2)

In this case, I delved more deeply into analysis which related agency and structure, concepts which are explored further in the findings (Chapters 6 and 7). The process of studying the codes of fellow researchers and critical friends enabled me to gain a window on my own practice as an interviewer, and to gain further insight into participants’ concerns, e.g. final comment from Reviewer 1: “You (Q) are not suggesting any means in particular, just asking openly. That, for me, is key here. There is a feeling here of “I should but I don’t” (in relation to digital practice).”
### Table 4.7 Categories (Phase I)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Using Open Educational Practices (OEP) for Teaching</strong></td>
<td>Use of OEP is characterised by: having a well-developed open digital identity; using social media for personal and professional use, including teaching; using both a VLE and open tools; valuing both privacy and openness; and accepting some porosity across personal-professional and staff-student boundaries. Use and reuse of OER was very low. Overall, use of OEP was relatively low, and uneven.</td>
</tr>
<tr>
<td><strong>Balancing Privacy and Openness</strong></td>
<td>Many academic staff want to preserve clear role boundaries between themselves and students and/or between their work life and personal life. Academic staff may not want students to find out too much about them, or may not want to find out too much about students – many of whom they perceived to be active in social media spaces. Interaction in open online spaces tends to blur the boundary between different identities and roles. Academic staff who want to preserve boundaries tend to use social media with strict self-declared guidelines, e.g. using specific tools for one purpose only (i.e. either work or personal, but not both). Some use a variety of strategies for balancing privacy and openness, in order to operate as both networked individuals and networked teachers.</td>
</tr>
<tr>
<td><strong>Developing Digital Literacies</strong></td>
<td>Many academic staff believe that higher education must change to meet the demands of a changing society. They seek to develop their own digital literacies, in order to improve their own learning and teaching. Many also seek to develop the digital literacies of their students, recognising that students need capabilities to manage their online lives well, i.e. to be aware of privacy, the nature of networked publics, social media benefits and risks, etc. Some academic staff acknowledge their lack of skills and digital literacies, and some feel that students have more skills than them, using a digital natives discourse.</td>
</tr>
<tr>
<td><strong>Valuing Social Learning</strong></td>
<td>Academic staff who value social learning try to encourage student engagement, interaction, and autonomy. They aim to teach in a non-didactic way, many mentioning “moving away from lecturing”. Teaching methods may include class discussions, debates, small group work, role plays, and learning activities beyond the classroom. Academic staff who value social learning (whether their teaching philosophy is explicitly stated or not) aim to create a different learning environment, a different contract with students. There is an emphasis on dialogue, feedback, and learners being actively engaged in the learning process.</td>
</tr>
<tr>
<td><strong>Challenging Traditional Teaching Role Expectations</strong></td>
<td>Some academic staff challenge the role expectations of ‘lecturer’ or ‘professor’. This may take the form of challenging their role as ‘the expert’ (or the sole expert), speaking of being learners as well as teachers, and of seeking to create and be part of a community of learners. Academic staff also may challenge traditional teaching role expectations in cases where they operate, or feel that they operate, on the margins of their department or the institution. This can be the case particularly for staff who work on fixed-term contracts, e.g. without departmental offices or regular access to university email.</td>
</tr>
<tr>
<td><strong>Experiencing Tension and/or Anxiety</strong></td>
<td>Overall, many academic staff feel overwhelmed by their workloads. Related to this, some also feel compromised due to conflicts between their personal/teaching values and their teaching practices. This may be the case where staff who value social learning are required to teach large numbers of students and/or to teach in physical spaces which are inflexible. Staff who feel that their values as educators are being compromised describe this as a tension or conflict, or as feeling resigned, reduced, or defeated. Many staff would like to have a stronger/better digital identity. Feelings of guilt may arise if they feel unsure about how to do this (or how to do it well), and/or do not have enough time to do it (or to do it well).</td>
</tr>
</tbody>
</table>
4.7 Phase II. Additional data gathering

Phase II included additional data gathering to contribute to enhancing the emerging grounded theory. Research activities included an academic staff survey, follow-up interviews of academic staff, and a student survey (see Figure 4.5).

![Figure 4.5 Research Activities: Phases I and II]

4.7.1 Academic staff survey

The qualitative analysis and emerging findings from Phase I were operationalised in the form of a survey with the aim of gathering additional data on the ways academic staff did or did not use, OEP. All members of academic staff at NUI Galway were invited to complete the survey. Figure 4.6 shows how this research activity fit into the research activities overall.

![Figure 4.6 Academic Staff Survey]
Developing the staff survey

The staff survey was designed to explore research questions 1-3, gathering data in the six categories identified in Phase I (summarised in Table 4.7, page 92). The full survey can be found in Appendix VIII; an overview is shown in Table 4.8.

### Table 4.8 Academic Staff Survey

<table>
<thead>
<tr>
<th>Question number</th>
<th>Topic area</th>
<th>Relation to categories identified in Phase I:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-8</td>
<td>Demographics and employment details</td>
<td></td>
</tr>
<tr>
<td>9-11</td>
<td>Online presence and activity</td>
<td>x x</td>
</tr>
<tr>
<td>12-19, 20-22</td>
<td>Use of social media (personal and professional)</td>
<td>x x x x x</td>
</tr>
<tr>
<td>23</td>
<td>Teaching beyond the VLE</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>24-28</td>
<td>Digital literacies</td>
<td>x</td>
</tr>
<tr>
<td>29-30</td>
<td>Privacy</td>
<td>x</td>
</tr>
<tr>
<td>31-32</td>
<td>Assumptions about younger people online</td>
<td>x</td>
</tr>
<tr>
<td>33-35</td>
<td>Public scholarship</td>
<td>x x</td>
</tr>
<tr>
<td>36, 37, 42</td>
<td>Workload, work-related stress</td>
<td>x</td>
</tr>
<tr>
<td>38-40</td>
<td>Recognition and professional development</td>
<td>x x</td>
</tr>
<tr>
<td>41, 43</td>
<td>Enjoyment, satisfaction and support at work</td>
<td>x</td>
</tr>
</tbody>
</table>

Prior to conducting the survey, I sought feedback on the survey questions from a small number of (four) academic staff previously unconnected with the research, to identify any issues with wording, minor errors, and timing. A small pilot survey was conducted, using SurveyMonkey, in March 2016. All test participants completed the survey and provided feedback which I used to correct minor errors, clarify wording of questions, add progress bars, and add approximate survey timing. I then created a final version of the online survey, also using SurveyMonkey.

Selecting and contacting survey participants

The target population was all members of academic staff at NUI Galway, employed full-time or part-time, on permanent or fixed-term contracts. I prepared an invitation to participate in the survey. The invitation, including a link to the online survey, was emailed to all members of academic staff on April 18, 2016. Later that week I also emailed all heads of schools with a request to forward the earlier email to all members of teaching staff – as it was not clear that non-permanent members of staff would be on ‘Academic Staff’ email distribution lists:
Earlier this week you will have received an invitation (see below) that was sent to all academic staff to complete a survey associated with PhD research I am undertaking in CELT. In many schools and disciplines there are other colleagues who contribute towards teaching (such as those on fixed-term or part-time contracts) who are not always listed in the university's mail lists. I am writing now to ask if it would be possible for your office to pass on this invitation to participate in the study to any colleagues who may be on your internal school list of contributing staff. Such adjunct or part-time staff play an important role in supporting teaching and it is an objective of my research to include their perspectives.

Many thanks for your assistance and support.

I have no way of knowing the extent to which (a) fixed-term and/or part-time staff missed the first email, or (b) heads of schools forwarded the email to those individuals, but staff who were not permanent/full-time were well-represented in the final survey results, comprising 40% of the total respondents. A summary of the Phase II survey respondents (in comparison with the Phase I interview participants) is shown in Table 4.9.

**Table 4.9 Summary: Phase II Survey Respondents and Phase I Interview Participants**

<table>
<thead>
<tr>
<th></th>
<th>Phase II Survey Respondents (n=132)</th>
<th>Phase I Interview Participants (n=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender: Female</td>
<td>52% (n=69)</td>
<td>47%</td>
</tr>
<tr>
<td>Male</td>
<td>48% (n=63)</td>
<td>53%</td>
</tr>
<tr>
<td>Discipline group:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEMM</td>
<td>49% (n=65)</td>
<td>37%</td>
</tr>
<tr>
<td>ASSBL</td>
<td>42% (n=55)</td>
<td>63%</td>
</tr>
<tr>
<td>Other</td>
<td>9% (n=12)</td>
<td>0%</td>
</tr>
<tr>
<td>Employment status:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent and Full-time</td>
<td>60% (n=78)</td>
<td>79%</td>
</tr>
<tr>
<td>Fixed-term and/or Part-time</td>
<td>40% (n=54)</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Data collection and analysis**

The questionnaire remained live for four weeks, after which it was closed with a total of 148 responses. All data were exported from SurveyMonkey to Excel for checking and cleaning. Sixteen responses were mostly incomplete, leaving 132 completed surveys available for analysis.

As shown in Table 4.9, the proportion of female and male survey respondents was roughly equal, with slightly more female (52%) than male (48%) respondents. In terms of discipline group, there were somewhat more STEMM (49%) than ASSBL (42%) respondents. In addition, 9% of all survey respondents were not from a specific
Chapter 4. Research Design and Methodology

academic discipline (STEMM or ASSBL), but from units such as adult education, teaching centre, etc. Finally, with respect to employment status, 60% of all survey respondents were employed on permanent, full-time contracts, with 40% employed on fixed-term and/or part-time contracts. As shown in Table 4.2Table 4.2 (page 81), the number of permanent, full-time lecturing staff in 2015 at NUI Galway was 590. Thus, the response rate among permanent, full-time lecturing staff was 78/590 or 13%. The response rate among fixed-term and/or part-time lecturing staff was not possible to calculate accurately. As described earlier, the figure of 1832 teaching staff employed on a fixed-term and/or part-time basis (Table 4.2) includes too many employment categories to be useful; alternatively, the FTE number of 140.67 masks the actual number of individuals. The response rate for staff outside of the permanent, fixed-term category lies between 3% (54/1832) and 38% (54/140.67), thus highlighting the need for more specific and granular data regarding employment categorisations.

The data were cleaned, categorised, and a codebook was prepared before exporting to SPSS. Within SPSS the data were organised and coded, in preparation for analysis. Descriptive statistics were gathered to enable summaries and comparisons as to why and how academic staff used various online tools and spaces. These findings provided additional detail to supplement the findings and emergent grounded theory developed in Phase I, and are explored in detail in Chapters 5 and 6.

4.7.2 Follow-up interviews with academic staff

One of the objectives of the study was to explore the practices and values of open educators, i.e. academic staff who used OEP for teaching. During the research design stage, it was decided that two educators would be selected from the open educators identified in Phase I, in order to gather additional information on the themes and findings arising in Phase I. Questions to be explored would include: How exactly do you use OEP (in one particular module); How do students respond; and What have you learned from these experiences? Following this, students would be invited to describe how and why they participated in the open activities organised by their lecturers, or not. Figure 4.7 shows the follow-up interviews in relation to the full study.

![Figure 4.7 Follow-up Interviews with Academic Staff](image-url)
As detailed in Chapter 5, eight open educators were identified in Phase I (see Table 4.10). Of these eight, there were three female and five male, two in STEMM and six in ASSBL disciplines. In addition, four of the participants using OEP were employed on permanent, full-time contracts and four were employed on fixed-term contracts, either full or part-time. The four open educators employed on non-permanent contracts comprised all of the non-'permanent and full-time’ academic staff who participated in the study.

Table 4.10 Participants Using OEP - Identified in Phase I

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Discipline area</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice</td>
<td>Female</td>
<td>STEMM</td>
<td>Fixed-term, Full-time</td>
</tr>
<tr>
<td>Barbara</td>
<td>Female</td>
<td>ASSBL</td>
<td>Fixed-term, Part-time</td>
</tr>
<tr>
<td>Diane</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>George</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>Malcolm</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>Paul</td>
<td>Male</td>
<td>ASSBL</td>
<td>Fixed-term, Full-time</td>
</tr>
<tr>
<td>Thomas</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>Vincent</td>
<td>Male</td>
<td>ASSBL</td>
<td>Fixed-term, Part-time</td>
</tr>
</tbody>
</table>

As much as was possible, I tried to maximise diversity across gender, discipline area, and employment status when selecting the two educators to participate in follow-up interviews. Selection took place in June 2016 for interviews to take place in autumn 2016. Of the three open educators who were female, two were on fixed-term contracts and did not know if they would return to teaching at NUI Galway in academic year 2016-17. To avoid any risks in planning for and then losing a participant, I invited Diane, a permanent, full-time lecturer in a STEMM discipline. Of the remaining 5 male open educators, I sought to find someone who worked in a non-STEMM discipline and who was not employed on a permanent contract. Of the two fitting these criteria, one had left the university by June 2016. Thus, I invited Paul, who worked on a full-time, fixed-term contract, but believed he would return to teaching in 2016-17. Both Diane and Paul agreed to participate in follow-up interviews and to facilitate contact with their students so that they could be invited to participate as well. I interviewed Paul on October 28, and Diane on November 30, 2016. Both interviews followed a similar procedure to our interviews the previous autumn: conducted in their offices, audio recorded, and then transcribed by me. Paul’s interview took 45 minutes; Diane’s interview took 55 minutes. I returned the transcripts to each for review and editing, and both approved these without changes. In both interviews, I sought to follow-up on our earlier conversations; both participants appeared eager to do this. Analysis of these interviews helped to enrich the initial interviews with each of these participants, but
also the overall findings. These are explored further in Chapter 6 (Section 6.4.1, page 145).

4.7.3 Student survey

By this stage in the study, I had gained considerable understanding of the values, motives, and practices of different open educators, including how they designed learning to incorporate OEP. While academic staff had various motives for using OEP, the aim of this final step of data gathering was to understand how students respond to open educators’ invitations to engage in OEP (i.e. research question #4). The student survey was the final step of data gathering (see Figure 4.8).

![Figure 4.8 Student Survey](image)

The original research design included a student survey plus focus groups with two different student groups, i.e. students studying in modules in which their lecturers chose to use OEP. However, my access to students was mediated through the lecturers and this posed some challenges, as described below. I was able to gather data from students using a survey only. The data gathered were not as rich as I had anticipated. However, I have included student voices and perspectives, as far as was possible.

In preparing to design the student survey, I drew on findings from the study so far, as well as other research studies that explored students’ digital and open learning practices in higher education, e.g. use of digital devices (Czerniewicz & Brown, 2013); use of social media and social networking (Creighton, Foster, Klingsmith, & Withey, 2013; Özmen & Ateş, 2014); use of Twitter specifically (Evans, 2014; Ferrer & Marín, 2015; Junco, Elavsky, & Heiberger, 2013; Knight & Kaye, 2014); creation of Personal Learning Environments (Dabbagh & Kitsantas, 2012); and supporting students in sharing their work openly on the web (Dohn, 2009; Waycott et al., 2013). I designed a draft survey and conducted a pilot on March 10, 2016, visiting a small undergraduate class of students whose lecturer used Twitter for in-class discussions and sharing resources. I brought the pilot survey in paper form, introduced it briefly, and distributed it to students. Thirteen students completed the survey. My memo written after analysing
Social media use was heavy among the students in the pilot survey. While a variety of different applications was used to connect with friends and family, Facebook was the most popular tool for sharing resources and coordinating – particularly the Facebook Groups feature. Student responses revealed complexity, and an ambivalence about the use of social media. Students were clear about the benefits of connecting with others but also frank in describing the disadvantages, especially a tendency towards “addictive” behaviour and procrastination.

Though heavy social users of social media, few students in the pilot study displayed a sophisticated understanding of digital identity – for example, how different applications could be used for different purposes (e.g. social, academic, professional, civic) or how openness could be balanced with privacy through the use of different tools, accounts, and identities. There was no indication that students were proactively thinking about establishing a digital presence beyond their current social media practices and their use of university systems – e.g. no students used LinkedIn and only one student had a blog. There is scope for working with students to explore their existing usage of social media and to build and develop their digital literacies, particularly in relation to privacy, managing information flows and attention, digital well-being, and digital identity.

In Student Survey planned for autumn, these pilot results help in refining the wording and focus of some questions: clarify Q13 (re: digital identity) and move to end of survey; add another option to Q18 (re: use of Twitter in class): ‘I sometimes check the tweets’; change language of Q18 from conditional “would” to past tense “did”.

A final question on the survey asked students to respond Yes/No whether they would be willing to participate in a focus group discussion regarding the ideas explored in the survey. The final version of the student survey can be found in Appendix IX; an overview of the survey is shown in Table 4.11.

**Table 4.11 Student Survey**

<table>
<thead>
<tr>
<th>Question number</th>
<th>Topic area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>Demographics</td>
</tr>
<tr>
<td>3</td>
<td>Use of VLE</td>
</tr>
<tr>
<td>4-11</td>
<td>Use of social media in general</td>
</tr>
<tr>
<td>12-17</td>
<td>Awareness/use of social media in current module</td>
</tr>
<tr>
<td>18-19</td>
<td>Digital identity</td>
</tr>
</tbody>
</table>

Selection of student participants was done in collaboration with the two lecturers who had participated in follow-up interviews. Each lecturer taught multiple modules. I asked each to choose one undergraduate module in which they used OEP and would permit me to contact students to invite them to complete the survey. I was prepared to
deliver the questionnaire in class (on paper) or online (via SurveyMonkey), depending on the lecturer’s guidance re: the best way to encourage student engagement.

Paul chose a small cohort of students in an undergraduate Arts module (Group A). I prepared an introduction and invitation to students and Paul forwarded this to students via email. He invited me to distribute the survey in one of the final classes of the term (18 November 2016) when several students were giving presentations, hoping that this would boost attendance on that day. Only nine students attended class on that day, but all nine completed the survey. Only one of nine students replied that they would be willing to participate in a focus group discussion related to the findings of the questionnaire, thus the plan for conducting focus group discussions with students in Group A was cancelled.

Diane chose a large cohort of students in an undergraduate Science module (Group B). Diane suggested the best way to contact students would be to send a link to an online survey. I prepared an introduction and invitation to students, along with a link to the online survey. The survey was to take place at the end of semester one, but Diane’s heavy workload meant that this was unavoidably delayed. Diane forwarded the survey link to students via email on February 22nd. Over the course of the next five days, 53 students completed the questionnaire. The delay in distributing the questionnaire meant that focus groups could not be scheduled, due to the proximity to the examination period. A summary of student respondents is shown in Table 4.12.

<table>
<thead>
<tr>
<th>Table 4.12 Summary of Student Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discipline area:</strong></td>
</tr>
<tr>
<td>Module discipline:</td>
</tr>
<tr>
<td>Level:</td>
</tr>
<tr>
<td>3rd year undergraduate</td>
</tr>
<tr>
<td>2nd year undergraduate</td>
</tr>
<tr>
<td>No. responses:</td>
</tr>
<tr>
<td>Students enrolled:</td>
</tr>
<tr>
<td>Response rate:</td>
</tr>
<tr>
<td>Female:</td>
</tr>
<tr>
<td>Male:</td>
</tr>
<tr>
<td>Age: 18-23</td>
</tr>
<tr>
<td>Age: 24 or older</td>
</tr>
</tbody>
</table>

The number of student respondents in Group A is very small (n=9); thus, statistical analysis of data by group is of limited use. Analysis of student data is applied to the collective set of responses (groups A and B combined). Overall, the respondents were mostly female (62%) and predominantly under 24 (87%).

The manually recorded student survey data for Group A (n=9) were entered directly into SPSS. The online student survey data for Group B (n=53) were downloaded from
SurveyMonkey to Excel, cleaned, and then exported into SPSS. Following this, all data were categorised and a codebook was prepared. Analysis focused on three main areas: digital identity, social media practices (general and academic), and motives for social media engagement (or disengagement) in relation to the module in question. Findings in each of these areas are explored in detail in Chapter 6 (Section 6.4.2, page 148).

**Conclusion**

Working from interpretive and critical perspectives, constructivist grounded theory methodology was used to build an understanding of participants’ practices, decision-making, and meaning-making with respect to openness. The overall purpose of constructivist grounded theory is to try to identify participants’ main concerns and to develop a situated theory to explain these (Charmaz, 2014; Glaser & Strauss, 1967). The study was situated at one higher education institution and was divided into two separate phases. Phase I comprised interviews with 19 members of academic staff to explore whether, why, and how they used OEP. The results of Phase I were used to design a further phase of data gathering, including a survey of academic staff across the research site, follow-up interviews with two open educators, and a survey of their students. Analysis of all data facilitated the building of a cohesive theory of the use of OEP, relevant in this particular context.

In the remaining chapters, I present and discuss the findings of the study and the development of the theoretical conceptual models related to the theory. Chapter 5 describes the practices of the academic staff participants, as a grounding for exploring in Chapter 6 their motivation with respect to open educational practices, the dimensions shared by those who used OEP, and student perspectives on the use of OEP. Chapter 7 presents the overall grounded theory.
Chapter 5. Digital and Open Practices of Academic Staff

The emergent grounded theory for this study aims to address four research questions related to the use of OEP in one specific higher education context. The first of these questions (RQ 1) is addressed in this chapter, providing a foundation for Chapter 6 which addresses the remaining three questions:

RQ 1. In what ways do academic staff use open educational practices for teaching?

RQ 2. Why do/don’t individual members of academic staff use open educational practices for teaching?

RQ 3. What practices, values and/or motives are shared by academic staff who use open educational practices for teaching (i.e. ‘open educators’), if any?

RQ 4. How do students respond to open educators’ invitations to engage in open educational practices?

In this chapter, I explore participants’ digital practices in four categories emerging from the data: (i) digital identity, (ii) digital networking practices, (iii) use of digital tools for teaching, and (iv) use of open educational resources (OER). Each category is mapped across a continuum of openness (‘less’ to ‘more’ open), as shown in Figure 5.1. The four categories are shown in the central column; the endpoints or poles of each category are shown in the left and right columns. It should be stressed that this representation is not meant to signify a binary opposition, but rather the endpoints of a continuum of expressions of digital identity and digital practices by participants in this study.

Academic staff participants with the least open digital identities used their institutional identities, i.e. university email and/or university-based profiles, as their primary professional digital identities. In terms of digital practices, participants on the least open end of the continuum tended not to use social media, or to use it for personal use only. With respect to digital teaching tools and resources, participants with the least open digital practices considered the VLE and university email to be the only appropriate tools to use for teaching online and for interacting with students online, and did not intentionally use OER for teaching.
The most open participants had open, networked, ‘Resident’ digital identities (based on White and Le Cornu’s (2011, 2017) Visitor/Resident definition, described in Section 3.1, page 29). Academic staff with open, networked, Resident identities tended to have “a relational and highly-social approach” online, leaving “myriad traces of their social and scholarly engagement on the web” (Stewart, 2016b, p. 68). These staff used open and social media tools for personal use, research, and teaching. The most open practices with respect to OER included intentionally using OER for teaching.

The four categories in Figure 5.1 operate independently. Many participants were open in some ways but not others, e.g. having an open digital identity but not using open tools for teaching. All individuals whose practices were on the right side of the continuum of openness for all four categories or for the first three categories (i.e. all categories except using OER) were considered to be using OEP according to the expansive definition of OEP outlined in Chapter 3. Each of these four categories is explored in detail in this chapter. The chapter concludes with a more detailed look at participants who used OEP. Throughout this chapter, the following convention is used in describing the findings of the study:

- ‘Participants’ refers to academic staff interview participants (Phase I)
- ‘Respondents’ refers to academic staff survey respondents (Phase II)

### 5.1 Digital identity

A core digital practice for all networked individuals is the creation, enactment and negotiation of a digital identity (or identities). An individual’s digital identity comprises digital depictions of and by oneself, as well as information about oneself that is shared by others; it is also expressed through ongoing digital interactions with others (boyd, 2010; N. Ellison & boyd, 2013; Greenhow & Robelia, 2009; Hildebrandt & Couros, 2016; Vivienne, 2016). To begin exploring digital identity in this study,
academic staff participants were asked which representation of their digital identity they typically shared with other academics whom they meet, e.g. at conferences. This digital identity (singular or plural), used for sharing with others, is referred to in the analysis below as a digital hub. Following this, participants also were asked to describe their sense of their digital identity in a broader sense.

5.1.1 Digital hub

Choice of digital hub varied widely among academic staff. Eschewing an online presence of any sort, some participants simply used their university email address as a point of contact. Where participants described having a digital hub, these ranged from university-based profiles (e.g. personal page on university website or research group blog), to profile(s) created on social networking sites (professional, academic and/or general), to personal websites or blogs. Figure 5.2 shows the distribution of the two broadest categories of participants’ digital hub responses: institutional identity (i.e. university email and/or university-based profile) and open, networked identity (i.e. an openly networked social media profile and/or personal website/blog) – as well as the intersection of these two categories (i.e. use of both institutional and open identities as a digital hub).

![Choice of Digital Hub](image)

As described in Chapter 4, Phase I comprised interviews with 19 members of academic staff; Phase II included a broad survey of 132 academic staff at the research site. Survey responses indicated that most academic staff at the research site used their institutional identities as their main digital hub. Nearly all survey respondents (95%)...
specified that they used their institutional identity, i.e. university email and/or university-based profile. Most (84%) used an institutional identity only, while a small proportion (11%) used both institutional and open identities (for example, institutional email and web page, plus Twitter account). Very few survey respondents (5%) used an open digital hub only. In contrast, fewer Phase I participants used their institutional identities as all or part of their digital hub (69%). Nearly half (48%) used open, networked identities as their digital hub, either entirely or in addition to their institutional identities.

The differences across these Phase I and II findings illustrate the effect of theoretical sampling. The use of theoretical sampling in Phase I resulted in the inclusion of more participants using open practices so that a full range of open, networked identities and practices could be explored. While Phase I enabled a fuller rendering of the range of identities and practices, the survey results, if they are representative, indicate that the 9 of 19 academic staff participants using open, networked identities are in a small minority (16%) among academics at the research site overall.

Following this initial analysis, I sought to identify any differences in choice of digital hub across the three independent variables: gender, discipline area, and employment status. There were only slight differences between female and male survey respondents, with 83% of female and 82% of male respondents using an institutional digital hub, and 15% of female and 18% of male respondents using open, networked identities as their digital hub, either wholly or partly. However, there were apparent differences across both discipline area and employment status, with fewer respondents in STEMM (Science, Technology, Engineering, Mathematics and Medicine) disciplines and fewer respondents in permanent, full-time posts choosing to use open, networked identities as their digital hubs (see Figure 5.3). Only 9% of academic staff respondents in STEMM disciplines used an open, networked identity as their digital hub (either entirely or partly), compared with 20% in ASSBL (Arts, Social Science, Business/Public Policy and Law) disciplines. In addition, 13% of academic staff respondents employed on permanent contracts used open, networked hubs, as compared with 20% of academic staff employed on fixed-term contracts. Neither of these differences was statistically significant (p ≤ 0.05), however.  

34 The Chi-Square Goodness of Fit test was used to compare the observed data with expected values as a test of independence. The Chi-Square non-parametric test is appropriate when the sampling method is random and the variables are categorical, as in this case. For this application of 2x2 tables, the Pearson Chi-Square test with Yates’ Correction for Continuity was used (Agresti, 2007, section 2.4). For these two cases of discipline area and employment status, the differences found were not large enough to be considered statistically significant.
5.1.2 Perspectives on digital identity

Following the discussion of their digital hubs, academic staff participants were invited to reflect on their digital identities in general. Perspectives and attitudes varied considerably. Some participants expressed no interest in exploring their digital identities:

I’ve never even Googled myself, I’d be afraid to. I don’t know how many hits I get on Google or anything. I don’t want to know. [Carol, not using OEP]

Some participants were not aware of their online identities but expressed a desire to develop stronger or ‘better’ digital identities. Some felt unsure of how to do this, or how to do it well. Many said simply that they did not have enough time, with some associating this with feelings of guilt:

I don’t think I have a digital identity, per se. Which isn’t great in this day and age when you’re looking for research funding and all the rest of it. You know, it’s something that needs to be addressed. [pause] It’s the first port of call for everybody now. I should have much more, I should have my own web presence, a comprehensive presence. I just haven’t gotten around to it – like 101 other things on my list, you know? [Michelle, not using OEP]

At the other end of the openness continuum were participants who had created open, networked identities in addition to their institutional identities. The practices and reflections of these participants confirm much of the recent research regarding networked scholarly identities (Hildebrandt & Couros, 2016; Kimmons & Veletsianos,
Digital and Open Practices of Academic Staff

While an individual has a role within an institutional structure, in an increasingly open, networked culture an individual has an identity “which it is his/her job to differentiate” (Stewart, 2016a, p. 9). Educators’ use of open, networked identities illustrates that some, at least, are choosing to become defined “less… by the institution to which they belong and more by the network and online identity they establish” (Weller, 2011b, p. 4). Participants in this study who had established open, networked identities demonstrated and reflected on their awareness, and management, of their multifaceted identities:

When I Google myself it’s the Twitter account, the university web page, the Google Scholar account. I suppose they’re the three things that I see as my digital identity... I think if I want to find out about someone who works in the same area as me I want to know if they have a university account, that will describe their teaching and research. Have they got a Twitter account, which gives you a view of what’s interesting them, what they’re doing, what their ongoing academic life is. [George, using OEP]

What comes up is the book and a lot of the articles I’ve written, and the conferences I’ve organised, and the conference papers, and some of the paintings. Yeah, I’m aware of my digital identity… I kind of don’t like having all my content... I don’t like being too present online. [Alice, using OEP]

I have a digital identity that is public in name, photo, and the contents of the science side of my head and not the personal person. But I mean some of your personality comes into that, you know. [Diane, using OEP]

These responses echo findings by Kimmons and Veletsianos (2014) regarding “identity fragments”. Observing that social media platforms tend to privilege a unitary, so-called ‘authentic’, presentation of self, Kimmons and Veletsianos (2014) (2014) found in their study of academic use of social media that the reality is more complex:

Educator identity consists of a constellation of interconnected acceptable identity fragments, which are each intentional, authentic, transitional, necessarily incomplete, and socially-constructed and -responsive. (p. 292)

While the notion of digital identity is the subject of continuing debate (as explored in Section 3.2, page 31), the creation and enactment of open, networked identities on various platforms is considered a necessity by a small but increasing number of academics as higher education institutions and wider society “become enmeshed with digital practice and culture” (Hildebrandt & Couros, 2016, para. 5). Yet, as evidenced by participant narratives in this study, such enmeshing is not uncomplicated. Academics who choose to enact and share their open, networked identities do so with a diverse range of attitudes about privacy and openness, as will be explored further in Chapter 6.
5.2 Digital networking practices

In describing their digital networking practices, all participants spoke in detail about their use/non-use of social media, including social networking sites (SNS), and their reasons for these choices. Some participants elected not to use social media at all or to use it for personal use only. Others chose to use social media for both personal and professional use. Social media applications used by participants included professional SNS (e.g. LinkedIn), academic SNS (e.g. Academia.edu, ResearchGate), and general social media and SNS (e.g. Facebook, Twitter, blogs). The rates and types of usage of each of these are shown in Table 5.1. As was the case with digital identities, the use of social media was somewhat higher amongst Phase I interview participants than Phase II survey respondents. The survey results are likely to be more representative of academic staff use of social media at the research site. The interviews enabled in-depth study of a full range of digital networking practices.

Table 5.1 Overview of Academic Staff Reported Use of Social Media Platforms

<table>
<thead>
<tr>
<th>Platform</th>
<th>Phase II Respondents (n=132)</th>
<th>Phase I Participants (n=19)</th>
<th>Description of Participants’ Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>LinkedIn</td>
<td>66%</td>
<td>79%</td>
<td>Used for professional networking; some also used for community networking. Usage ranged from rarely to regularly.</td>
</tr>
<tr>
<td>Academia.edu</td>
<td>38%</td>
<td>48%</td>
<td>Used professionally for accessing and sharing research and networking with other academics.</td>
</tr>
<tr>
<td>ResearchGate</td>
<td>54%</td>
<td>53%</td>
<td>Used professionally for accessing and sharing research and networking with other academics.</td>
</tr>
<tr>
<td>Academia.edu and/or ResearchGate</td>
<td>66%</td>
<td>89%</td>
<td>Used professionally for accessing and sharing research and networking with other academics.</td>
</tr>
<tr>
<td>Facebook</td>
<td>65%</td>
<td>79%</td>
<td>Used mostly personally, although some combined personal and professional use. Usage ranged from rarely to daily.</td>
</tr>
<tr>
<td>Twitter</td>
<td>48%</td>
<td>68%</td>
<td>Used mostly for professional purposes (only one participant combined personal/professional use in one account). Usage ranged from rarely to daily.</td>
</tr>
<tr>
<td>Blog</td>
<td>13%</td>
<td>32%</td>
<td>Used professionally, mostly for writing about research. Participants contributed to group/project blogs and/or created/wrote in their own blogs.</td>
</tr>
</tbody>
</table>
Different social media platforms and SNS have different structures and affordances. Participants’ usage of various platforms reflected their understanding of these differences. For example, social connections on sites such as Academia.edu, ResearchGate and Twitter are non-reciprocal; one person can follow another without a requirement (or expectation) of following back. Facebook’s ‘friends’ model, on the other hand, requires reciprocal connection. Anonymity is another feature which varies across platforms. LinkedIn, Academia.edu, ResearchGate, and Facebook rely on a ‘real names’ model of connection, whereas Twitter allows creation of accounts in any name. Different platforms encourage different kinds of representation of self, disclosure, and sharing (Veletsianos & Stewart, 2016). Participants’ specific experiences of academic SNS and general social media and SNS are explored below.

5.2.1 Academic social networking sites

Academic SNS aim to bring the benefits of online networking to an explicitly academic audience; the two most popular sites are Academia.edu and ResearchGate (Jordan, 2016). Academia.edu and ResearchGate were the academic SNS mentioned most often by participants in this study. As shown in Table 5.1, 89% of interview participants used Academia.edu and/or ResearchGate, while the corresponding proportion of survey respondents was 66%. There was variability in usage across the two sites: 48% of interview participants and 38% of survey respondents used Academia.edu; while for ResearchGate the proportion of users was nearly identical across the two groups: 53% of interview participants and 54% of survey respondents.

Other studies have found disciplinary differences in usage of the two main academic social networking sites, with a predominance of humanities researchers and social scientists in Academia.edu and scientists and technologists in ResearchGate (Esposito, 2013; Jordan, 2016; Ortega, 2015). The same pattern was apparent in this study, as shown in Table 5.2. Based on survey responses of the 120 respondents within specific disciplines, there were significant differences (p=0.05) in the use of both Academia.edu and ResearchGate. Respondents in ASSBL disciplines were more likely to use Academia.edu\(^{35}\), and respondents in STEMM disciplines were more likely to use ResearchGate\(^{36}\). In addition, the saturation of ResearchGate within STEMM disciplines was evident in the fact that nearly 80% of STEMM respondents used ResearchGate, and all in STEMM who used an academic SNS used ResearchGate (with a quarter of STEMM respondents also using Academia.edu).

\[^{35} X^2 (1, n=120) = 8.92, p = .003, and \phi = .29\]

\[^{36} X^2 (1, n=120) = 23.66, p = .000, and \phi = .46\]
During interviews, I sought to understand the different ways in which participants characterised their use of academic SNS. Many, across a range of open practices (from ‘less’ to ‘more’ open), described the value of academic SNS in terms of connections and timesaving. This included participants who were active on many forms of social media:

*Academia[e]du has become quite dominant now in the last few years, that’s for sure. It’s a good way to link to other people and to follow research.* [Joe, not using OEP]

…and as well as those who were not otherwise active on social media:

*Considering that you only have a limited amount of time for these things and you can’t spend your life browsing. I think it [ResearchGate] works pretty well.* [Matthew, not using OEP]

Not all participants found the use of academic social networks for research to be beneficial, however – although their reasons varied. Some simply felt overwhelmed at the perceived need to network in many different places:

*I’ve deliberately not gone into Academia.edu because it’s another thing* [emphasis added by participant]. *I’m sure you might hear that all the time.* [Paul, using OEP]

Others who chose not to use academic social networks were critical of the data surveillance practices and the lack of openness of proprietary academic social networks. One participant chose instead to engage in networking using more open tools:

*The thing I don’t like about Academia.edu which I’ve noticed more recently is that it’s a closed platform. People who aren’t members, if they want to view my papers they can’t actually download them without logging in or creating a profile. That’s an impediment to some people accessing it because at least in some of the […] circles that I’m involved in, they’re opposed to all kinds of surveillance. They don’t like doing that.* [Joe, not using OEP]

Thus, usage of academic SNS differed by discipline but also by individual, illustrating the effect of both disciplinary culture and agency in choice of academic SNS.
5.2.2 General social media and social networking sites

Activity in academic SNS can be regarded as an expression of one’s formal academic identity, i.e. mostly defined by research interests and institutional connections (Esposito, 2013; Jordan, 2017a). Some academic staff, however, also choose to use more general social media and SNS, such as blogs, Twitter and Facebook, for keeping up to date with research, sharing their own research and teaching, and/or connecting with scholars, students and others. As shown in Table 5.1 (page 109), two-thirds of academic staff respondents (65%) used Facebook, almost one-half (48%) used Twitter, and 13% blogged, either in an individual or group blog. The proportions of interview participants who used these various social media was higher for each of these: 79%, 68%, and 32%, respectively. Amongst the various scholarly reasons for using general social media and SNS, keeping up to date with research was the benefit most widely cited by participants:

- Practically, for day-to-day stuff, I read a lot of blogs that I generally hear about through social media – people in the field who write blog posts. [Paul, using OEP]
- I think Twitter increasingly in the last couple of years – I’m using that to find out about new research. It’s often individuals identifying particular papers or Twitter accounts held by journals or publishers. So I think that’s probably the main way over the last year that I’m finding out about new articles, is through Twitter. [George, using OEP]

A few participants also described using Twitter simply as a means of curating the web, i.e. following others and reading tweets but not contributing or ‘tweeting’ themselves. This use of Twitter is similar to more traditional research and information-gathering activities:

- I will try to go onto Twitter. Every time I do, I find useful things. There are some good tweeters in my area – they are worth it. But I’m not in the habit of doing it. [Mary, not using OEP]
- Twitter, I do it for professional – and really I’m a stalker [laughs]. I follow a lot of professional societies, so I get a lot of updates. If there’s a new report released in the UK, I have it. I have it there and I have the PDF. I just find this fabulous. [Michelle, not using OEP]

By referring to herself as a “stalker” here, even as an aside, Michelle revealed her perception that this type of Twitter use is somehow deviant, i.e. not the ‘correct’ way to use Twitter. Engagement through listening is a valid form of networked participation, acknowledged as ‘legitimate peripheral participation’ by Lave and Wenger (1991) and highlighted specifically as participatory practice by Jenkins, et al. (2015). However, encouragement to post (and thus to share data) is built into all commercial social media platforms and communicated through those platforms explicitly and implicitly (Srnicek, 2016; Tufekci, 2014). Academic staff who deliberately choose to use social media tools in alternative ways, such as to curate the web rather than to share updates, are aware that they are swimming against that tide.
Beyond keeping up to date with research and curating the web, a few participants described how they used social media and SNS more fully, to build networks that encompassed their professional and personal interests, thus making connections within and beyond their existing professional relationships. Although only one participants made specific reference to her PLN (Personal Learning Network), such descriptions closely match the definition of PLNs, i.e. building and employing a knowledge network (e.g. peers, experts, and others) to suit personal learning and professional development needs (Couros, 2010; Rajagopal, Brinke, Bruggen, & Sloep, 2011):

I love the PLN side of it. It’s just fantastic. I find so many interesting articles and links and how other people are using things. So I’m making a conscious effort, last year and this year, to get more of that information out to the students. [Barbara, using OEP]

[On Twitter] I’m connected with friends and family, obviously. Certainly, people that I’ve come across in discussion about mathematics and teaching… People that I’ve met through the university as well, not necessarily in [discipline]. Who else? A few people who share my radical views on certain things. [Ruth, not using OEP]

Participants who used social media and SNS typically shared relevant resources gleaned from these sites with students, either directly (using social media for teaching) or indirectly (using social media to curate the web and then sharing resources with students). Examples of the direct use of social media for teaching are explored further in Section 5.5.

5.3 Digital tools for teaching

All academic staff participants used the university VLE, albeit to varying degrees. The VLE was used mostly to post lecture notes, assignments and grades, and to email students. Many participants welcomed the ease with which the VLE facilitated communication and administrative tasks:

I mainly use [VLE] as a communication tool – to communicate with students, to check up who’s there, to send them messages. [Chris, not using OEP]

[VLE] email function – nearly always, that’s the only way I communicate with them [students]. I just know it’s got the full, up-to-date list with university addresses. [George, using OEP]

The email tool on [VLE] is brilliant. It’s fantastic how we’ve gotten used to all this. I can select out, because sometimes what you’re going to say only applies to certain students. It’s really useful. Announcements is another thing. I encourage them to look at [VLE] every day, or every other day. [Carol, not using OEP]

Many characterised their use of the VLE as limited, explaining that they know there are newer and more interactive features but that they used only the standard features. Limited use of VLE functionality was attributed variously to time constraints, lack of confidence, and being “traditional” or conservative about using online systems:
The main way that I use [VLE] is probably what you’d call traditional. I post lecture notes there. [Ruth, not using OEP]

I would say, maybe reflecting on it, it has been more about broadcasting, making it available to them. I maybe stalled a little bit in adopting things. I haven’t gone on and used all the various things that are there – wikis, blogs, and so on – despite what I was doing at an early stage. I sometimes think I’m missing out there but part of me is quite traditionalist too. [Al, not using OEP]

Several participants tried to encourage more interaction among students by using collaborative features of the VLE, including online discussion boards, wikis, and blogs. Two participants found these to be useful:

We start off by sending them out around the campus and get them to identify [items], photograph them, then they upload them to [VLE] – and then we talk about them in class. [Michelle, not using OEP]

We used [VLE] to disseminate the students’ work prior to critique sessions in the classroom. You’d log on – these are the stories that people submitted this week. You’ll download them, you’ll read them, you’ll make notes on them, and then we’ll discuss them in class. That was a system that I just adopted this year. In previous years they emailed me the stories and I emailed them out to a list. We did it by [VLE] this year, just as an experiment. I was happy enough with that. [Vincent, using OEP]

Others, however, described their frustration in trying to foster student interaction within the VLE:

And then I have in some courses suggested that if people have questions about the homework they can post something there and somebody might respond, not necessarily me… I won’t say that it’s made a huge impact. I don’t think it has. But a few people have used it effectively. I think that has potential. I mean we all have the same problem, I guess – getting the students to talk to us. It’s not easy. So I’ve tried it. I wouldn’t say that it’s failed, but I’d say that it hasn’t been widely used either. [Ruth, not using OEP]

I’ve tried. With the large module, there’s too much inhibition to put up comments on the discussion board. With 160 in the class, I might have got 30 of them to do something there. So the discussion board didn’t work out so well. [Diane, using OEP]

Such frustrations in attempting to use the institutional VLE as a collaborative space have been noted in other studies (S. Brown, 2010; Henderson, Selwyn, & Aston, 2015; Martindale & Dowdy, 2016; Steel, 2009; Williams, 2013). VLEs offer control and management by the instructor and the institution, yet tend to be implemented in ways which focus on “managing rights and permissions in terms of access… restricting the learner’s experience” (Martindale & Dowdy, 2016, p. 131). Despite their recognised utility in many respects, VLEs can shape pedagogical practices in ways that emphasise control, exclusivity, and hierarchy rather than flexibility and collaboration. A few participants in this study reflected on these barriers:

I think a lot of the online discussion happens outside of [VLE]. It’s on maybe Facebook pages, in particular. We have a course Facebook page that some students
seem to use; we have a final-year [discipline] student page. I think that environment just seems more acceptable to students than VLE… VLE feels, maybe, a little bit more formal. I’m not sure if students feel as free to express themselves in that environment. There’s this feeling that everything there is assessed, I think… I don’t know. I do think it doesn’t feel like a space where students will interact in a way that’s useful for the teaching and learning. [George, using OEP]

Apart from the VLE, a few participants also used social media tools for teaching, namely Twitter, Facebook, and blogs. This is explored further in Section 5.5.

### 5.4 Using OER

While academic staff described using a variety of freely available digital resources in their teaching (e.g. course materials and resources from other universities, books, chapters, articles, PowerPoint presentations, YouTube videos, TED videos), none of the participants spontaneously mentioned open licensing, Creative Commons, or OER. Where sharing of resources arose, I asked participants about their use of open resources. Discussion of copyright, licensing, and OER then ensued. Overall, there was relatively little awareness amongst participants of Creative Commons licensing, and no apparent awareness of the term ‘OER’. In addition, there was little concern about the distinction between ‘free’ and ‘openly licensed’. This was the case for participants right across the continuum of practices, from least to most open:

Q: Do you use any open online resources?
A: I start with Wikipedia, first of all, no matter what I do. Like the students do, you know, and I suppose I would go on from there. I mean I use the Web, which I suppose is open material there. Of course I do, yeah. That’s the first step for us. [Chris, not using OEP]

Q: Are you aware of Creative Commons licenses?
A: I’ve come across it, but I’m not quite sure what it means. [David, not using OEP]

Q: Are you aware of Creative Commons licenses?
A: Yes.
Q: How would that affect what you do, either what you use or what you create?
A: It doesn’t, because I actually don’t even think about it. If I get a new course, the first place I generally tend to go is SlideShare to have a look at what’s up there… And because that’s freely available, I don’t even have to think about Creative Commons. But other than that, it’s all my own stuff. [Alice, using OEP]

In terms of open licensing practices, some participants were aware that their articles had been released with open licenses. However, none had added a Creative Commons license to their own teaching materials:

I’ve never put a Creative Commons license on something I’ve produced, other than the open access journal articles – PLOS One and British Medical Journal Open. So I assume there are Creative Commons licenses on them. Other than that I’ve never created content and assigned a Creative Commons license. [George, using OEP]
Q: Does your blog, the course website, have a Creative Commons license?  
A: It does not. [Paul, using OEP]

In general, the tendency was to rely on the ‘educational use’ or ‘fair dealing’ provisions of Irish copyright law (Copyright Association of Ireland, n.d.), or simply to use materials regardless of copyright status:

For something like articles or chapters in books, I have paid less attention to Creative Commons and openness than I should have. And I have probably broken copyright on a number of occasions. [Paul, using OEP]

I don’t bother with copyright or licenses or anything like that. That’s bad, I know it’s bad. [Vincent, using OEP]

This low level of awareness and practice with respect to open licensing and OER was also evident in the academic staff survey. Only 38% of respondents replied that they were aware or very aware of Creative Commons licensing. And although half (50%) of respondents said they “make a specific effort to find and share free online resources with students”, just 22% did the same for Creative Commons licensed resources. In addition, only 16% of survey respondents teach students about copyright and/or Creative Commons licensing. There were no significant differences in these results across gender, discipline area, or employment status.

The results of this study align closely with those of a recent national study of how OER are used and shared by academic staff in Irish higher education institutions (National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a):

The majority of participants had low levels of awareness of OER and poor understanding of the associated issues… The understanding of the concept of ‘openness’ is very limited with a majority of respondents equating ‘sharing’ of resources, with, for example, what happens between teachers and their students and between teachers and their colleagues in closed spaces. (p. 104)

Low awareness and low take-up of OER has been a consistent finding in many other studies also. Similar results have been found in OER studies in the UK (Arcos, Farrow, Perryman, Pitt, & Weller, 2014; Farrow et al., 2015; Masterman & Chan, 2015; McGill et al., 2013; Rolfe, 2012), the USA (Allen & Seaman, 2014, 2016; Kortemeyer, 2013), Australia (Bossu et al., 2012), and numerous studies in the Global South (Hodgkinson-Williams, 2014; Karunanayaka et al., 2015; Walji & Hodgkinson-Williams, 2015). In summary, all participants shared online resources and interacted with students online using the VLE and email. However, participants who used OEP also shared online resources and interacted with students beyond the VLE and email. This did not

37 “Fair dealing” in Irish and UK copyright law is analogous to but more limited than “fair use” doctrine within US copyright law (Copyright Review Committee for the Department of Jobs, Enterprise and Innovation, 2013).
necessarily include intentionally using OER. These practices are explored in more detail in the following section.

5.5 Open educators: Using OEP

All participants whose practices were on the right-hand side of the continuum of openness for at least the first three categories were considered to be open educators in this study, i.e. using OEP. As illustrated in Figure 5.4, the use of open, networked identities and open networking practices are the foundational practices of open educators; use of open tools and resources are the observable aspects of using OEP. Values and motives with respect to using OEP will be explored in Chapter 6.

![Figure 5.4 Using OEP: Digital Identities and Practices](image)

According to this definition, 8 of 19 educators participating in Phase I used OEP and thus were considered to be open educators (see Table 5.3).

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Discipline area</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice</td>
<td>Female</td>
<td>STEMM</td>
<td>Fixed-term, Full-time</td>
</tr>
<tr>
<td>Barbara</td>
<td>Female</td>
<td>ASSBL</td>
<td>Fixed-term, Part-time</td>
</tr>
<tr>
<td>Diane</td>
<td>Female</td>
<td>STEMM</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>George</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>Malcolm</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>Paul</td>
<td>Male</td>
<td>ASSBL</td>
<td>Fixed-term, Full-time</td>
</tr>
<tr>
<td>Thomas</td>
<td>Male</td>
<td>ASSBL</td>
<td>Permanent, Full-time</td>
</tr>
<tr>
<td>Vincent</td>
<td>Male</td>
<td>ASSBL</td>
<td>Fixed-term, Part-time</td>
</tr>
</tbody>
</table>

The eight open educators comprised: three female and five male; two in STEMM disciplines and six in ASSBL disciplines; four employed on permanent, full-time
contracts and four employed on fixed-term contracts, either full- or part-time. Overall, participants who used OEP tended to use open, networked, ‘Resident’ identities and practices, mostly demonstrating a level of comfort with their personal and professional interactions using social media and SNS. These practical skills, the personal networks that developed, the recognition of the value of developing wider PLNs, and a desire to share these benefits with students, all contributed to open educators’ decisions to use OEP. This confirms research findings by Veletsianos and Kimmons (2012b) that educators’ open, networked, and participatory practices are a precondition for teaching and designing learning activities using open practices. White and Le Cornu (2017) also found that “teaching staff who take an Open Educational Practice (OEP) approach” will use their Resident practices to encourage students also to develop open and Resident practices.

Two forms of OEP

Based on the detailed descriptions of the participants, two distinct forms of ‘Using OEP’ were discerned: (i) being open and (ii) explicitly teaching openly (see Table 5.4). All eight open educators in the study demonstrated the former; three also demonstrated the latter. All participants using OEP described being open with students, i.e. being visible online, interacting with students, and openly sharing resources. Each of these participants had an open digital identity and shared at least one of their profiles with students as a way of exchanging information and/or engaging in conversation. This was often but not always accompanied by the use of module hashtags to curate and share module-related resources and conversations. Most open educators who used this ‘light touch’ approach to sharing with students in open online spaces acknowledged that the response from students was minimal:

I have a hashtag for the various module codes. What I do is… if I come across a blog or a paper I’ll just share it with the hashtag and sometimes they pick it up. With [module] there’s a stream that relates to the psychology of well-being. Historically it’s quite good as well; they can go back and look through it if they want to. But they’re shy, I think, to engage in it publicly. Some have and I’ve had some engagement but really they’re the minority. So I haven’t really pushed it. I’m conscious that they’d be shy to do it and I also think that – well maybe I haven’t been very creative about it. [Malcolm, using OEP]

I encourage them to use Twitter. So I use the module code as the hashtag and I encourage them to do that. Again there’s some uptake, limited uptake. I’ve tried to encourage it more this year. A new idea was to give them a hint before the test, and there was a bit of interaction on it. But they probably felt that was unfair. So they should know their module code. And I’ve told them they don’t need an account, they just search the hashtag and have a look, and they don’t even need to follow anybody or anything like that. I don’t know how many of them would have seen that hint. [Diane, using OEP]
Table 5.4 Open Educators: Use of OEP

<table>
<thead>
<tr>
<th>'Being open'</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbara</td>
<td>Uses personal Twitter account to share module-related resources with students. Does not invite student engagement on Twitter, but replies to students.</td>
</tr>
<tr>
<td>Diane</td>
<td>Uses personal Twitter account to share module and exam-related resources with students, using module hashtag. Invites students to engage on Twitter; replies to students’ comments and questions. Trying to build a sense of community and a historical Twitter record based on the module hashtag.</td>
</tr>
<tr>
<td>Malcolm</td>
<td>Uses personal Twitter account to share module-related resources with students, using module hashtag. Does not invite student engagement on Twitter, but replies to students. Trying to build a historical Twitter record based on the module hashtag.</td>
</tr>
<tr>
<td>Thomas</td>
<td>Once used personal Twitter account to invite students to summarise a play in a tweet, using module hashtag. Does not use Twitter any longer, citing lack of time. Now uses discipline Twitter account (with colleagues) to share relevant resources.</td>
</tr>
<tr>
<td>Vincent</td>
<td>Did not plan to use personal Twitter account for teaching, but once students followed and engaged with him on Twitter, he followed back. Currently engages in module-related and general discussion with students on Twitter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'Teaching openly'</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice</td>
<td>As part of a teaching team, created a public Facebook page for one module. Invited students to openly share their digital media projects and to engage with comments from the public.</td>
</tr>
<tr>
<td>Paul</td>
<td>Created module websites using WordPress, opting to host modules openly rather than in the VLE; students co-created a glossary of module-related terms on a page of the course website. Uses personal Twitter account to share module-related resources with students, using module hashtag. Requests that students use a Twitter account for the module; specifically asks students to tweet comments on their weekly readings, using the module hashtag. Has facilitated Twitter chats with authors whose work is being studied in the module.</td>
</tr>
<tr>
<td>George</td>
<td>Uses personal Twitter account and a module Twitter account. Each student is assigned to host the module Twitter account for one week to share links to relevant stories and then to discuss in class and write a reflection.</td>
</tr>
</tbody>
</table>

These responses echo some of the frustrations expressed by academic staff with respect to the lack of student interaction within the VLE. Invitations to students to engage in scholarly discussion in digital spaces (as in physical spaces) require not just amenable environments but also effective pedagogical strategies.

In efforts to engage students to a greater degree, and to embed open practices more thoroughly, three participants chose not only to be open with their students but also to teach openly, i.e. to create specific learning activities in open online spaces beyond the
VLE. Teaching openly took different forms (see Table 5.4). Alice created public Facebook page for one module, enabling students and lecturers to share their work and interact with others; Paul created open websites (using WordPress) for two modules and engaged with students on Twitter; and George used Twitter so that students could share and engage in discussion on module-related topics:

And any of the assignments that the students would have done, say videos, we’d put up on Facebook [open Facebook page]. So we’d get people to have a look and comment on that. Because the students knew that it was going to a global audience, they were a lot more particular about what they were doing. And then they got interested as well in the people who were commenting on their work. So we found that Facebook was a brilliant way of disseminating content and reaching a wider audience and that it could be used within the classroom. [Alice, using OEP]

I have a website for [module]. I also have one for another course... they’re WordPress. The reason I established them was, I found them often easier to use than [VLE], greater flexibility in presenting the material. In seminar evaluation forms, students tended to say that they preferred using them to using [VLE]... They say that all the material that they need is there... From my own perspective, it’s just greater freedom in how you design the information, how you organise it, and navigate through it. [Paul, using OEP]

A single course [Twitter] account that people [students] host for a week… I think students find it useful. They do feel the module’s very up-to-date. I suppose we might spend a large part of some part of the teaching sessions talking about pieces of [discipline] science that didn’t exist when the course started. So they like that feeling that it’s really responsive to what’s happening, really encouraging them to think critically about news stories... It seems to have worked well. [George, using OEP]

In this group of participants there was no evidence of use of OER, nor of open tools or practices such as web annotation, editing Wikipedia, Domain of One’s Own, etc.

Benefits of using OEP

Benefits of using OEP, cited by the eight open educators, included improved learning design (specifically related to using WordPress blogs for module websites); connecting with current events and issues; expanding the scope of learning beyond the classroom/university to wider networks, including future professional communities and the public; and overall enhancement of students’ learning.

Paul found that having Twitter chats with authors whose work was being studied in the module prompted rich discussion with students about the nature of authorship and engagement with readers in networked publics:

In our course last year, we had a live Twitter chat with an author that we were studying… It was very interesting for me, and the class too, about how an author thinks about Twitter, and how they communicate… It was exciting as well, because this is a barrier that’s not broached very often by students. You don’t get to talk to the author that you’re studying… This was something I wanted to get across to the students as well; a lot of contemporary authors are on Twitter. You can see mundane things that they write about. Does this change the way that we conceive of authors? Are they less
George believes that students’ use of Twitter to share relevant news stories enhanced the relevance and criticality of class discussions:

I want students to make the connection between the theory and the other content in our module and what’s happening in [discipline] on a day-by-day basis... So when someone hosts it for a week, the following week they come in and say here’s what I tweeted about. They explain why these stories got their attention and how they are related to the course... I want them to see what the difference is between the actual piece of science underpinning the story and what’s reported in the media... I think there’s a lot of interesting things around food companies and the alcohol industry and how they influence narratives around research. I want them to have that critical perspective too. Twitter just makes it feel like it’s all very current. [George, using OEP]

The benefits of OEP recounted by participants reflect many of those reported in other studies on open education, OER and OEP, i.e. improving access, enhancing learning, and empowering learners (Andrade et al., 2011; Beetham et al., 2012; Cannell, Page, & Macintyre, 2016; Couros & Hildebrandt, 2016; DeRosa & Robison, 2015; Devine, 2013; Iiyoshi & Kumar, 2010; Inamorato dos Santos et al., 2016; Veletsianos, 2015b).

**Conclusion**

This chapter explored the digital and open practices of academic staff in four broad categories: digital identity, digital networking, use of digital tools for teaching, and use of open educational resources (OER). Rarely was it possible to identify an individual’s practices as simply ‘open’ or ‘closed’. Thus, practices were explored along a continuum, from *less* to *more* open. Participants’ practices often move along the continuum, depending on context. Many participants used open digital identities and networking tools for research; far fewer used OEP for teaching.

Open digital identities and networking were foundational practices of academic staff participants who used OEP for teaching; these were practices on which open pedagogies, open sharing, and all other forms of OEP were built. Participants who used OEP for teaching aimed to use open tools to expand learning spaces beyond the classroom and VLE. However, there was little intentional use of OER or open licensing.

The reasons for participants’ choices with respect to using OEP are explored in more detail in the following chapter. Chapter 6 moves the focus from ‘what’ to ‘why’, exploring the values and motives of academic staff as they make choices about openness, and also the responses of students in relation to those choices.
Chapter 6. Using Open Educational Practices

Following the description of academic staff practices in Chapter 5, this chapter focuses on academic staff motivation with respect to open educational practices (RQ 2), the dimensions shared by participants who used OEP (RQ 3), and student perspectives on the use of OEP (RQ 4):

RQ 1. In what ways do academic staff use open educational practices for teaching?

RQ 2. Why do/don’t individual members of academic staff use open educational practices for teaching?

RQ 3. What practices, values and/or motives are shared by academic staff who use open educational practices for teaching (i.e. ‘open educators’), if any?

RQ 4. How do students respond to open educators’ invitations to engage in open educational practices?

It is worth reiterating here that an important aspect of the research design was to include a diversity of perspectives of academic staff. In addition to ensuring diversity across gender, discipline area, and employment status, the study intentionally included academic staff who did not use open practices, as well as those who did. The aim was to study educators across a continuum of ‘less’ to ‘more’ open practices in order to gain an understanding of the factors that both fostered and hindered the use of OEP – as well as to illuminate dimensions shared by open educators.

Section 6.1 begins with an exploration of educators’ reasons for using or not using OEP for teaching, clustered into four categories: privacy, digital literacies, philosophy of teaching and learning, and conception of self as teacher (see Figure 6.1). Again, this representation is not meant to signify a binary opposition, but rather the endpoints of a continuum of values and practices expressed by participants. Section 6.2 further explores the tensions described by participants in relation to openness and using OEP. Section 6.3 describes the four dimensions (values and motives) shared by open educators. The chapter concludes by considering the perspectives of students with respect to openness and OEP.
Chapter 6. Using Open Educational Practices

6.1 Categories related to using OEP

Based on analysis of academic staff interviews (see Table 4.7, page 92), five categories emerged to describe the central concerns of participants with respect to using OEP: (i) privacy, (ii) digital literacies, (iii) philosophy of teaching and learning, (iv) conception of self as teacher, and (v) tensions with respect to OEP. The first four are values and motives; these are explored in this section. The fifth category represents an overarching concern, and is explored in Section 6.2.

6.1.1 Privacy

Overall, privacy was highly valued by academic staff. Almost all respondents (95%) in the academic staff survey agreed or strongly agreed with the statement: “Protecting my online privacy is very important to me.” Interview participants spoke about privacy and openness – their interpretations of these and the relationship between them – more than any other aspect of their digital, networked practice. None said they did not value privacy, although they defined privacy in various ways. Across all academic staff interview participants, both using and not using OEP, there was recognition that finding a balance between privacy and openness is an individual decision and an ongoing challenge, both as networked individuals and as educators. In the words of one participant: “You’re negotiating all the time.”

Strong attachment to privacy

Five participants had a strong, even fierce, attachment to privacy, describing their non-use of social media as a way of preserving their personal privacy:

I think online privacy is fundamentally important. People don’t really appreciate digital privacy. It’s a bit like the right to vote, you know. Once you have it, you give it away, but you fought 400 years to get it in the first place. And the same thing, I think
people don’t have an awareness about digital privacy, their rights, and the way other people or institutions misuse, or use their power. Personally, I feel very strongly about it and this might be one of the reasons that I don’t use Facebook also – because it would compromise my online privacy. I value my privacy big-time. I don’t want anybody to know what I had for breakfast or where I spent the weekend, no thanks. [Matthew, not using OEP]

It’s not just a question of privacy. It’s a question of having a bit of time or space for myself. I need a tremendous amount of solitude... I need an awful lot of time to think. [Carol, not using OEP]

This strong attachment to privacy was expressed by some as a direct outcome of negative experiences online, and therefore as a matter of personal safety. Three participants recounted incidences of bullying and/or stalking experienced by members of their families or those close to them. Each cited these experiences as reasons for their strong attachment to personal privacy and their limited use or non-use of social media:

I don’t use Facebook. Some people I know have engaged with and been bullied through Facebook. You know, nieces and nephews and family friends that overcommitted and overexposed themselves and didn’t realise the boundaries of it. So in that sense, I don’t use it. [Hannah, not using OEP]

But I also am careful about keeping a boundary with the students – and I will go so far with them and I’ll be friendly and all that kind of thing, but I try to keep my personal life and my work life separate in that way. And, yeah, and I suppose I am sensitive about that... but that’s due to other things as well, experiences of other people in my family. [Chris, not using OEP]

For individual academics with a strong attachment to privacy, the nuances of balancing privacy and openness are immaterial. In their estimation, protection of personal privacy outweighs any potential benefits of using OEP. Most participants (14/19), however, described striving for a balance between preserving their privacy and engaging in open practice, at least to some degree. This was typically accomplished through boundary-keeping and intentional use of digital spaces and digital tools, and tended to be expressed in terms of maintaining personal-professional and/or staff-student boundaries.

**Personal-professional boundary**

Interaction in open online spaces tends to blur the boundaries between different identities and roles – personal and professional, formal and informal (Miller, 2013; Stewart, 2015a). Despite this blurring, most participants expressed a preference for maintaining some semblance of a boundary between their personal and professional online identities and activities. Participants described this boundary-keeping in terms of a desire to avoid mixing streams of conversations about work with other conversations about family life, social activities, sports, religion, politics, etc. Related to Nissenbaum’s (2004) notion of contextual integrity, this mixing of life streams, has
been defined as *context collapse* by Marwick and boyd (2010): “the flattening out of multiple distinct audiences in one’s social network such that people from different contexts become part of a singular group of message recipients” (Vitak, 2012, p. 451). While some participants accepted a degree of context collapse or porosity across the personal-professional boundary, e.g. “former students become friends; colleagues become friends,” online as well as offline, others were more circumspect about boundary-crossing, ranging from mildly cautious to adamantly against mixing the personal and professional. Participants across the continuum of open practices, however, described personal-professional boundary-keeping as requiring considerable thought and maintenance work:

> In Facebook, I definitely don’t accept friend requests from people I don’t know... I definitely would assess to what extent I know them or know people who know them very well. The difficulty there is that Facebook does have personal information, family photographs, things like that, and you just don’t want to share with the world. [George, using OEP]

> I tend to not post anything personal on Twitter about my personal life, family life, anything like that... In fact, I’ve annoyed friends by not following them on Twitter. They followed me and have gotten irate when I don’t follow them back. [Paul, using OEP]

One challenge, described vividly by some, was managing interactions along the boundary, i.e. the continuously evolving liminal space between the personal and the professional. Participants described managing interactions across this boundary as an ongoing dilemma:

> I just kind of made the decision [to use Facebook personally]. Obviously, that crosses over sometimes because you’ll have colleagues who are friends. That kind of muddies that a little bit. But that [Facebook] is predominantly just for personal use. I suppose for myself I have very personal interest in sport. So sharing that professionally with colleagues, they mightn’t necessarily be that interested in it. (laughs) [Thomas, using OEP]

> Occasionally I will use Twitter for searching purposes, to follow news on my favourite football team. I’ll search their page, but I won’t follow them. So that would be slippage as well. When that kind of creep happens and I find myself using the particular tool for the ‘wrong’ (in inverted commas) reason, I find myself feeling guilty occasionally. This is not what this is for! [Paul, using OEP]

Academic staff manage personal-professional boundaries with a keen awareness of their potential audiences, e.g. colleagues, students, family, friends, the wider public (Sugimoto, Hank, Bowman, & Pomerantz, 2015; Veletsianos, 2016; Veletsianos & Shaw, 2017; Veletsianos & Stewart, 2016). Personal-professional boundary-keeping practices by participants in this study included the use of privacy settings, maintaining two different Facebook profiles (one personal and one professional), and/or using different tools for different purposes: typically, Facebook for private/personal, Twitter
for public/professional networking. In general, participants described this work as a process of creating and negotiating a personal set of norms or “rules”.

Although only a few participants used social media in ways that traversed personal-professional boundaries, their motives and practices show that the value of social media use cannot be limited simply to increasing the impact of, or access to, research or scholarship. Several recent empirical studies of academics’ social media practices also have found that scholars use social media for both personal and professional reasons (Bowman, 2015; Quan-Haase, Martin, & McCay-Peet, 2015; Stewart, 2015a, 2015b; Veletsianos & Stewart, 2016). Such findings “reinforce the notion that scholars’ personal lives are often an integral part of online participation and as such mediate emergent forms of scholarship” (Veletsianos & Stewart, 2016, p. 8). However, according to participants in this study, including those using OEP, personal-professional boundary-keeping is continual and challenging work.

**Staff-student boundary**

While all interview participants spoke of the importance of communicating with and supporting students, most also described wanting to maintain a professional distance in the form of a staff-student boundary, online as well as offline. This was expressed most often as keeping a “professional distance” or, in the words of one participant, avoiding being too “pal-sy”. Many of the same practices used to maintain a personal-professional boundary also were used to maintain a staff-student boundary.

Phase II survey respondents provided an insight into the diversity of academic staff views with respect to the benefits, disadvantages, and appropriateness of interacting with students in open online spaces beyond the VLE. The most common responses to the statement “Overall, I believe that academic staff connecting with students online, outside of [VLE] and email...” were negative responses (see Figure 6.2), i.e. that this entails risks for staff (50%) and risks for students (39%). In addition, nearly a quarter of respondents (24%) believed that interacting with students in open online spaces “is not appropriate”. However, many respondents held positive views about connecting with students in open online spaces. One-third of respondents (34%) believed that it improves sharing of resources and networks, 30% believed that it enhances staff-student relationships and communication, and 17% believed that it helps students to develop digital literacies.
During Phase I interviews, participants described their own “personal rules” for making decisions about where and how to engage with students. Some participants echoed the risk-focused views of respondents: they only interact with students on approved university systems, i.e. the VLE and email.

I don’t want to be linked in with students on any form of social media, really – except for the approved ones like [VLE]. [Carol, not using OEP]

Other participants noted the potential for context collapse, both for themselves and for students. Firstly, many saw complexities and risks in revealing aspects of their personal lives to students (i.e. risks for staff):

But literally my Facebook is my friends and family and it’s a pretty small network. So if a student – now actually I do have some of my PhD students as friends on Facebook, but I know them for years now, you know? That’s different. I don’t mind them seeing pictures of my family and my kids and that sort of thing. [Malcolm, using OEP]

Sometimes you follow someone, Atheist on Twitter, which means sometimes students are going to discover a few things and stop blessing you when you sneeze. I mean there’s bizarre little things that you’re just not going to avoid. And you don’t mind them seeing it, but the world is so large and diverse and there’s a large number of people who aren’t open to diversity. So I suppose that’s a little inhibiting. [Diane, using OEP]

Secondly, participants described wanting to respect student privacy and not to see more information than students might intend them to see in open online spaces (i.e. risks for students):

Every year they have a Facebook page. And I made the mistake of being on that one year and seeing things about me. They weren’t bad, but just complaining about the [module] and things like that. I felt like “oh, I should not be here”… So, I’d rather not know that stuff. It’s like overhearing them in the pub or something, giving out about your class. [Barbara, using OEP]

This guy followed me. I couldn’t resist looking at his Twitter feed. This was about the time of the exams. His tweet was – he was clearly studying my course – “fucking
Other participants simply thought it prudent to protect their time and/or their feelings by not interacting in open online spaces in which students might be talking openly:

You want to support your students, but really, you can’t be a parent to them. You can’t be a mother to all of them… You still have to protect yourself, I think. [Michelle, not using OEP]

I’d be devastated if I saw adverse comments about myself online. They probably are out there. I just don’t know about them. I’d resign. I’d go and live under a rock or something. Yeah, it’s all about privacy actually, an awful lot of it is. [Carol, not using OEP]

There was an overwhelming tendency not to connect with students in personal online spaces, such as Facebook. All participants who were Facebook users said they have a personal policy of not ‘friending’ undergraduate students:

I follow former students of mine. I just don’t – I like to maintain some kind of professional distance. I don’t – I just don’t like being too kind of ‘pal-sy’ with undergraduate students in particular. I think it’s better to maintain distance. I had students try to friend me on Facebook and I’ve always rejected those requests. [Joe, not using OEP]

I regard Facebook as being relatively private, insofar as it can ever be private. That’s for my friends. That’s for my family. Subsequently, I have accepted Friend requests from past students. But they would be people who I would have subsequently been friends with – ‘Oh, I still see you around, and we still talk, and we have coffee’ and I would treat them differently – but never current students. [Vincent, using OEP]

I think for Facebook, I’m pretty clear. It’s mostly a personal thing and it probably crosses the line of creating a non-professional relationship with someone. [George, using OEP]

I have a Facebook group for the [discipline] seminars. I think of Facebook as my personal thing. I don’t use my personal profile for professional means in Facebook. But I do use Facebook groups. [Paul, using OEP]

While there was little to no anxiety expressed about boundary-keeping decisions with respect to undergraduates, there was some tension at the border area, e.g. with PhD students. Some said they would friend their PhD students; others that they would only friend PhD students whom they were not supervising:

I don’t friend students. Once they’ve got their PhD, then I do. (laughs) No, I don’t want to go there. I think I have friended other PhD students, not mine. In general, I ignore all the ones from the Masters students or PhD students until they’re out the other end. And then I accept the friend request. [Mary, not using OEP]

Like I supervise two PhD students at the minute and, it’s funny, you know the way Facebook suggests potential friends? They appear quite regularly because we have a
lot of shared friends. But I don’t think that’d be appropriate to have them as friends… There’s no hard and fast rules. To some extent, you do look at what other people are doing. There would be other staff members with Facebook accounts and you’re sometimes checking to see “have they got their PhD students?” because you don’t want to be this overly formal, officious type person who’s so concerned about being professional – whatever that means. So, you’re negotiating all the time. [George, using OEP]

Of participants who opted to engage with students beyond the VLE and university email, Twitter was generally preferred to Facebook. Twitter was seen as open, public, and a more suitable tool for staff-student interaction:

Twitter is a different beast. Or at least I regard it as a different beast compared to Facebook. It’s more public. Literally, it’s just out there all the time. So I don’t have that sort of privacy issue there at all. I would interact with a lot of students that way. [Vincent, using OEP]

I did use it in my teaching and it was brilliant. We were doing Macbeth, so I used my own account… I got the students to summarise the play in a tweet. It was fantastic! And they still use that, because the New Yorker has done novels in tweets and things like that. Again, the beauty of Twitter – what I like about it is the restriction on the number of characters. It’s almost like writing a poem. [Thomas, using OEP]

Overall, connecting with students in open online spaces, such as on social media and SNS, was seen as an individual decision. In the words of one participant: “There’s no hard and fast rules.” Boundary-keeping and boundary-crossing, both personal-professional and staff-student, are personal, contextual, and require continual negotiation and decision-making. Interestingly, this was the case for educators across the openness continuum, whether novice or experienced users of open practices. Open practice may offer benefits, but it does not inoculate open practitioners from the ongoing work of negotiating boundaries and balancing privacy and openness.

6.1.2 Digital literacies

Digital literacies form the substructure of all digital practices – and constitute the second category related to Using OEP (see Figure 6.3). Descriptions of and assumptions regarding digital literacies were interwoven throughout interviews with participants. In Chapter 5 (Section 5.4, page 115), I described the low level of OER awareness/use and relatively low level of awareness of copyright and open licensing amongst participants in this study – all important aspects of digital literacy. Here I consider two further aspects of digital literacy which arose: persistence of a ‘digital natives’ discourse and awareness of surveillance practices by multinational technology corporations. I also describe how participants described supporting students in developing their digital literacies.
Despite empirical and theoretical critiques of the ‘digital natives’ trope (summarised in Section 3.1, page 29), digital natives discourse has proved remarkably persistent in the broader culture and within higher education. In a recent NMC Horizon global survey of digital literacy in higher education, Johan Bergström acknowledged: “While the discussion of ‘digital natives’ versus ‘digital immigrants’ may be somewhat outdated, the idea that there is a digital divide between faculty and learners still affects the mindset of educators in the higher education sector” (Alexander et al., 2017, p. 23).

Sharon Flynn (2016) made a similar finding based on her work supporting academic staff at NUI Galway:

The metaphor of the Digital Native is still very much used in academic circles – perhaps because it is easy to understand. Many academic staff feel comfortable to describe themselves as digital dinosaurs (or immigrants), separated from their students’ apparent ease with technology by a gulf so fundamental that it cannot be bridged. When pushed, they do accept that students are ill-prepared to use tech in their educational lives: unable to navigate the VLE, not aware of file types, completely fazed when faced with a zip file. But still, the Digital Natives narrative persists and is accepted as a truth, an excuse. (para. 1)

Perhaps unsurprisingly then, a digital natives discourse emerged during interviews with several members of academic staff in this study. Only one participant explicitly mentioned the term ‘digital natives’:

Because I appreciate that students are the digital natives, I try to use different types of technologies in order to deliver content, being always aware that it doesn’t matter what you use, the content has to be relevant. I don’t want the technology to detract from the content. [Alice, using OEP]
However, several used a digital natives discourse in describing their feelings and observations about the digital capabilities of their peers, their students, and/or themselves. None of these participants used OEP:

> A lot of these are mature students, even people similar to my own age, in their forties or whatever. They aren’t going to have a Twitter account… often. [Mary, not using OEP]

> I can see using Twitter, down the road. I wouldn’t know how. I’d be relying on somebody – I mean I have younger colleagues who know quite well how it works. [Ed, not using OEP]

> I know my daughter now, in third year, going into fourth year; she shares things on social media. They have a completely different way of apprehending the world. They’re far more media savvy than we ever were. So I don’t have any great fears about their use of what they find and how to interpret it, but they do need a bit of guidance. [Carol, not using OEP]

One form of digital natives discourse focused on a perception of younger people’s over-use of social media:

**Q:** Do you know how your students use social media?  
**A:** Not really, no. One assumes that they’re at it all the time, to put it mildly. [Al, not using OEP]

**Q:** Do you know how your students use social media?  
**A:** Yes, they use it quite a lot. One thing I don’t like – I’ve seen a study at Harvard, and my daughter who’s in third year told me – students who use laptops in class, they’re very often checking Facebook during lectures. Or they’re doing other things like that. [Carol, not using OEP]

Because digital natives assumptions emerged during Phase I interviews, a related question was included in the academic staff survey in order to learn more about the prevalence of such assumptions within the larger population of academic staff. Nearly three-quarters (74%) of respondents agreed or strongly agreed with the statement: “As ‘digital natives’, younger people tend to be more skilled at using digital and social media.”

Thus, while digital natives discourse has been widely discredited as “misplaced technological and biological determinism” (Selwyn, 2009, p. 364), it persists among many academics. Digital natives discourse was particularly prevalent in this study amongst academic staff who did not use OEP, arising in interviews with 5 of 11 educators who did not use OEP, as well as 1 of 8 open educators. Based on the narratives and contexts described by participants during their interviews, reliance on a digital natives discourse appears to be based on selected personal experiences that reinforced uncritical assumptions about a generational divide in digital skills and learning preferences. Similar findings arise in other studies of academic staff perceptions and practices (Flynn, 2016; Lanclos, 2016). These studies also note that digital natives discourse is amenable to change through reflective practice and
professional development initiatives such as Visitor/Resident mapping (Cronin, 2015b; Flynn, 2016; Lanclos, 2016; White & Le Cornu, 2011, 2017).

**Awareness of corporate surveillance practices**

Academic staff are well aware of and concerned about corporate surveillance practices, including the monetisation of data, a phenomenon described earlier as *surveillance capitalism* (Zuboff, 2015). Fully 87% of academic staff survey respondents agreed or strongly agreed with the following statement: “I am concerned about the privacy practices of corporations that track my online data and interactions.” Many interview participants spoke in detail about this:

I haven’t created a Google profile, although I have Gmail and I find Google search very handy. I’m suspicious of Google, of any search engine, of any data that I don’t have control over. Because people are making decisions about using my data without me knowing. [David, not using OEP]

For instance, [tech company] has all these kiddies’ names and dates of birth and it was hacked recently and there I was trusting. They didn’t have the credit card but they now have the full name, gender, and dates of birth of… my kids. Friggin’ disaster. They should be shut down. And apparently, it was a nice easy hack too. So, I find it difficult to trust companies because the regulation standards aren’t up to speed with the hacking technology. I think it’s, unfortunately, a really dangerous world right now. [Diane, using OEP]

There was another journalist last year who did a study trying to hide her pregnancy from various companies and social media sites and how this ended up with her being suspected of being a criminal. That phenomenon… should be more of a concern to people and sometimes I feel like the debate about privacy is kind of obscuring that larger issue. [Joe, not using OEP]

In some cases, participants described their digital practices in relation to an ethical stance taken in the face of the rise of surveillance capitalism and broader corporate surveillance practices:

As a citizen, I have the same kinds of concerns that I think a lot of people have. I think the more I’ve used Facebook, I’ve found myself sharing less, or posting less, just as the years have gone by. I suppose I’ve been on there for 7 or 8 years. I think part of that is a general cautiousness of what these private companies are doing with information. I guess we know more about what’s happening in the last few years. That has, probably more unconsciously than consciously, made me share less personal information on the web. [Paul, using OEP]

Because I do research, of course, we’re so well taught about the importance of data protection, and being very clear with research participants: this is what it’s for, this is what I’m doing with it, this is how it’s being looked after. Whereas Google, Facebook, we have no idea what they’re going to do with this. And of course, they’re private companies. So you expect – this is not hidden – their idea is to make money… To make money with our data, that we give them for free. Now, there’s an exchange! I will go to find people’s work on Google, or whatever. But I’m conscious of it and I do what I can consciously to minimise exposure of my information to other places. [David, not using OEP]
Many participants, across the continuum of open practices, were aware of and concerned about corporate surveillance practices in relation to what/how/where they share, click, and view online. For a few participants, this awareness acted as a deterrent to using OEP, either entirely or specifically in relation to teaching. However, several were moved by their awareness of these risks to work with students to help them to further develop their digital literacies.

Teaching digital literacies

About half (9/19) of academic staff participants embedded digital literacies in their teaching. Most of this work was in the “information, media, and data literacy” strand of digital literacies, e.g. the nature of networked publics, evolving understandings of privacy, digital identities, filter bubbles, and social media risks and benefits for particular professions:

- There’s not a lot of stuff out there at the moment about [discipline] and social media. But there was some good stuff. And that session got really positive feedback, really good feedback. There’s space, I think, to expand that more, and to look at the implications of social media, but also in terms of your own professional career. [David, not using OEP]

- And that discussion can be an important one to have with students. What identity do you share, what identity do you adopt? And then, how many identities do you want to maintain, constantly updating? Or are you happy with some identities to die some kind of death by being inactive? [Ed, not using OEP]

- I guess another thing to mention about privacy is that we talk about privacy in the course, and what digital culture has done to our notions of privacy. [Paul, using OEP]

- One of our EU projects is in the area of trying to get discussion online over open data. You know, we’re acutely aware of the challenge of getting quality exchanges in these platforms. And also the problem of actual competency in relation to the data they’re looking at, competency in relation to the issues and arguments they’re discussing. So, it’s really quite challenging. You have to facilitate that knowledge growth... I think it’s been a revelation to a lot of them actually... most of them are somewhat surprised and somewhat ignorant of the effect of the social media on others. So it’s not a dialogue that’s actually been cracked open and revealed to them, I get the sense, prior to our focus. [Malcolm, using OEP]

In practice, this ranged from teaching about digital literacies, without interacting with students in open online spaces, to teaching and modelling digital and network literacies through the use of OEP. This is complex work, as acknowledged by Maha Bali in the NMC Horizon global survey of digital literacies (Alexander et al., 2017):

The role of higher education, and educators, is to work on nurturing digital literacies across the curriculum, taking into account the inequalities of access to opportunities to develop digital literacies before and outside of higher education, and keeping in mind the intersectionality of incoming students and how their priorities within digital literacies will differ. (p. 21)
There was a focus, in many cases, on the development not only of digital literacies but *critical data literacies*, i.e. related to the “development, effects and social relations bound in technology” (Hinrichsen & Coombs, 2013, para. 8) (see also: Pangrazio, 2016; Pangrazio & Selwyn, 2017). Though none of the participants specifically mentioned inequality or surveillance capitalism in describing how they developed their own or their students’ digital literacies, their stance echoed Zuboff’s (2015) call to action:

…most important for all scholars and citizens is the fact that we are at the very beginning of the narrative that will carry us toward new answers. The trajectory of this narrative depends in no small measure on the scholars drawn to this frontier project and the citizens who act in the knowledge that deception-induced ignorance is no social contract, and freedom from uncertainty is no freedom. (p 86)

Overall, many participants sought to develop their own digital literacies, and about half sought to develop students’ digital literacies, including all who used OEP. As noted by Beetham, et al (2012): “Digital literacies, capability, and confidence are critical to open practices of all kinds” (Beetham, Falconer, McGill, & Littlejohn, 2012, 'Why engage in OEP', para. 4).

### 6.1.3 Philosophy of teaching and learning

After *privacy* and *digital literacies*, the third category differentiating participants’ use of OEP was *philosophy of teaching and learning* (see Figure 6.4). While a plethora of theories and philosophies of learning exist (see Section 2.4, page 22), two broad branches are cognitive/behaviourist and sociocultural/social constructivist theories (Conole & Oliver, 2006; Greenhow & Lewin, 2016; Panke & Seufert, 2013; Rowe et al., 2013). In the former, learning is seen as a process of *knowledge acquisition*, while in the latter, learning is seen as a process of *knowledge construction* and the focus is on social learning. Most participants in this study (13 of 18) valued social learning, including all eight participants who used OEP. Examples of teaching and learning approaches which were coded as “valuing social learning” included: class dialogue and discussion; students working in pairs or groups; peer learning and peer feedback; student-led sessions; and specific techniques described by participants as problem-based learning, cooperative learning, and collaborative inquiry.
During interviews, educators who valued social learning described their efforts to “move beyond” a didactic lecturing style and to encourage more student activity, interaction, and discussion:

- For me, best possible outcomes involve things like people working well, cooperating well together, to solve societal problems, amongst other things, which involves getting the relational dynamics between people working well: knowledge exchange, appropriate input of data… introducing students to the greater possibility of achieving collective intelligence and applications that are beneficial in terms of solving complex problems and working together. [Malcolm, using OEP]

- Well, I wouldn’t necessarily have the vocabulary that would be used in educational theory to describe this but obviously, the traditional lecture can be quite a passive process. I disagree with the whole notion that the goal of teaching is just to supply content to students... I try to make it more like that the key to learning is to acquire certain kinds of skills or habits of thinking. [Joe, not using OEP]

One open educator spoke specifically about the importance of creating a learning community:

- I do think in order for me to create the conditions that people can learn in, I have to create a community of people here. I have to make sure people are comfortable interacting with each other. I have to make sure they’re comfortable interacting with me. So that idea of a community of learning would underpin my philosophy of teaching. [George, using OEP]

A few participants noted the role of professional development activities in transforming their conceptions of teaching and learning toward more collaborative and social learning. Seven participants specifically attributed this shift to their participation in professional development programmes offered by the university’s Centre for Excellence in Learning and Teaching:

- After my first year here, I heard about a course in CELT, the PG Cert in Teaching and Learning. I did that and I learned a lot through that. So what I would have picked up
from that would have been stuff like... a lot more interaction, I do a lot more of that since then. [David, not using OEP]

I’m doing more of the interactive, student-focused teaching in the last couple of years… [after] completing the CELT Diploma in Academic Practice. I completed that this year, I started it 3 years ago. And I think that had a profound impact on how I went about teaching… I think the community of learning thing has come from the CELT course. And maybe in future years, I might explain that to students – what we’re trying to do here is create a community of learners. [George, using OEP]

Several studies have shown that different approaches to teaching tend to map to disciplinary differences, with ‘hard’ disciplines focusing more on information transfer while ‘soft’ disciplines favour a conceptual change approach (Bates, 2015c; Becher, 1994; Biglan, 1973; Lindblom-Ylänne et al., 2006; Lueddeke, 2003; Neumann et al., 2002; Ylijoki, 2000). Disciplinary differences in teaching approaches are not “isomorphic” (Bates, 2015c, Outcomes, para. 4), however, nor are they absolute (Gibbs, 2000; Lueddeke, 2003). The important point is that educators’ approaches to teaching are related to their conceptions and philosophies of teaching, and these are often influenced by the dominant epistemologies, values, and norms of disciplinary cultures. There were no dramatic disciplinary differences in this study. A majority of participants across both discipline areas valued social learning: 4 of 7 in STEMM disciplines; 9 of 12 in ASSBL disciplines (‘hard’ and ‘soft’ disciplines, respectively, in the Becher-Biglan framework described in Section 4.7.1).

Cognitive/behaviourist approaches remain the traditional approach to learning and tend to dominate within higher education due to the emphasis on external standards and measurable outcomes (C. Brown, Czerniewicz, & Noakes, 2016; Rowe et al., 2013). This applies also to the use of digital technologies in higher education, where technology typically reinforces traditional approaches and didactic teaching methods and is at odds with the creative practices in participatory digital cultures (Greenhow & Lewin, 2016; Henderson et al., 2015; Rowe et al., 2013).

All open educators in this study described valuing social learning. Participants who valued social learning but did not use OEP described how they sought to create social learning activities in their classrooms and/or within the VLE. Open educators sought to create social learning activities in their classrooms but also used social media, SNS and/or other open tools to foster social learning. Greenhow and Lewin (2016) note that social media practices can align well with social constructivist approaches to learning, building on the concepts of participation and decentralised, co-constructed knowledge.

6.1.4 Conception of self as a teacher

The final category that differentiated participants’ use of OEP was conception of self as teacher, ranging from ‘accepting’ to ‘challenging’ traditional teaching role expectations (see Figure 6.5). This was the most difficult of the four categories to
discern. Unlike privacy and digital literacies, and to a lesser extent philosophy of teaching and learning, participants did not speak explicitly about their conceptions of themselves as teachers. However, this emerged in various ways during Phase I interviews, notably in references and allusions made by participants to the extent to which they accepted or challenged traditional teaching role expectations. All participants who used OEP in this study challenged traditional teaching role expectations in some way.

Teaching role expectations vary by context, of course (e.g. discipline, institution, regional/national context). However, conventional teaching role expectations prevail in educational cultures with ‘teacher as expert’ and ‘student as novice’ belief systems, where teaching is generally focused on what the teacher knows and on unilateral transmission (Weimar, 2013, p. 65). Most educational institutions are built on such cultures, often evident in hierarchical policies, procedures, teaching approaches, and even architectures (both physical and virtual). Educators who seek to shift the balance of power between teachers and students can be said to be challenging traditional teaching role expectations.

Participants who used OEP described various ways that they challenged traditional teaching role expectations, moving away from Freire’s ‘banking approach’ to education. One open educator spoke of using OEP, specifically communication via Twitter, as a way of breaking down the traditional lecturer-student barrier and expressing care for students:

I think for the few who like it, it’s improved it for them, and they feel more connected despite the big room. It’s not so bad in the small classes, maybe 26 or 60, even that’s not so bad. But this big room of new young people that you only see for 12 weeks and a lot of them are very inhibited. I think it means that they can listen, and maybe they feel like they’re in touch with you outside the classroom. So instead of really only knowing you for 45 minutes twice a week for 12 weeks… at least they think, ‘oh, maybe she actually cares’, or ‘oh, I could actually ask a question if I needed to’. Whereas email, it takes a lot of nerve for a first-year to write an email and send it to
what they call a professor. They just feel inhibited no matter how nice you are. I think it may allow them to feel like you’re more approachable. And if nothing else, that would be good. So it’s probably positive even just for that. [Diane, using OEP]

Others spoke in terms of having a broader identity, seeing themselves as learners as well as teachers, and creating a community of learning. In this way, challenging traditional teaching role expectations is a corollary to valuing social learning. However, this is not always the case. Challenging traditional teaching role expectations also may result from attempts to work around structural barriers. A vivid example of this was described by one participant, Vincent, who had been employed by the university on a succession of short-term (i.e. three-month), part-time contracts:

I don't let students know I'm on Twitter, they seem to figure it out. It depends on what email account I reply to them with. Depending on the teaching or contractual situation in any given year, sometimes the [university] email account just evaporates and I have to fall back and use my own email account. My personal email signature has my Twitter name, my blog; the [university] account just has the department name.

[Vincent, using OEP]

Vincent did not begin using OEP for teaching by seeking to challenge traditional teaching role expectations. Instead, without access to his university email account, he was compelled to use his personal email account to communicate with students. Subsequently, students engaged with him via Twitter and Vincent responded. His use of OEP grew from this:

I would get a lot of current students following me on Twitter. And I would have discussions with them on Twitter over things. And more often than not I would probably follow them back… students who I would have had interactions with on Twitter, I would probably have more familiarity with them and their projects. That’s the only way social media has changed that. You have a better idea of their worldview, I suppose… it helps you understand what they’re trying to accomplish with their work.

[Vincent, using OEP]

Challenging traditional teaching role expectations may well result from pedagogical motivations and a commitment to democratic practices. However, this cannot be assumed. As in Vincent’s case, challenging traditional teaching role expectations can result from challenging structural constraints within the university, such as those experienced by adjunct staff without access to institutional systems.

Finally, traditional teaching role expectations can be said to be in a state of flux in digital, networked culture. Open networks tend to flatten hierarchies and create multiple tributaries to complement the traditional rivers of scholarly communication and information flow. As Stewart has observed, “...‘open’ signals a broad, decentralized constellation of practices that skirt the institutional structures and roles by which formal learning has been organized for generations” (Stewart, 2015b, p. 287). Individual members of academic staff decide on the appropriateness of open practices on a day-to-day basis (e.g. establishing open digital identities, communicating with
students via social media, teaching in open online spaces) according to their own conception of their role as educators. For example, some participants in this study saw the merits of having an open digital identity and sharing this with students—considering this to be part of their teaching role:

I don’t mind having all these profiles or students being able to look me up or know something about me. I think that’s probably positive… It’s part and parcel of being an academic. I know colleagues who don’t put their photo up, they choose not to, and I don’t think they should be forced to. But I think it’s just part of the job now at this point. [Diane, using OEP]

Others such as Joe, an avid blogger with a well-developed open, networked identity, did not view this as integral to his role as an educator:

I don’t mind if students follow me and if they find stuff that I’ve written online. But I just don’t encourage it as part of the teaching, or their relationship with me as their teacher. [Joe, not using OEP]

In the absence of university guidelines or guidance, educators make decisions about the appropriateness of open practice on their own. The implications of this will be explored further in Chapter 7.

6.2 Tensions related to openness and using OEP

Participants across the continuum of ‘closed’ to open practices acknowledged a variety of tensions associated with using OEP, and even with considering the use of open practices. These tensions included feeling overwhelmed, under pressure to make decisions regarding openness, fearful about the consequences of openness, and experiencing value conflicts in relation to openness.

Feeling overwhelmed: “It’s another thing”

About half of academic staff participants (9/19) acknowledged feeling overwhelmed in one way or another. Some described feeling overwhelmed by the myriad of possible platforms, profiles, and practices available to them. With respect to digital identity management and digital networking, participants across the continuum cited lack of time as a limiting factor in developing their digital identities and keeping profiles updated on different platforms. In opting out of using an academic SNS platform, one open educator explained that he viewed it as simply “another thing” to do.

Higher education is increasingly characterised by heavy workloads, individual performance management, target setting, competitive promotion criteria, and ‘standardisation’ of curricula (MacLaren, 2012). Many participants described feeling
overwhelmed with work, with an unending stream of information, and with multiple demands on their time:

I don’t have time… from the point of view of Twitter, no time. Blogging, no time. Wikis, no time. Facebook, just pop in and out. I just don’t have any free time. I’m putting it into the teaching and the research and managing the projects. And once I’m out of the office I want to be doing other things. I don’t want to be tied to technology that much, not that much. [Alice, using OEP]

[Google Scholar] I was very active. I haven’t, it’s been a time thing this year. It’s something I need to update. [LinkedIn] I think I have a profile, but I don’t really – I just, I’m so busy! [Twitter] I deleted it. I was just so busy. But I found it fantastic. I kind of miss it. [Thomas, using OEP]

I should have much more, I should have my own web presence, a comprehensive presence. I just haven’t gotten around to it – like 101 other things on my list, you know… See, to me that’s a big task. To actually sit down and to get this stuff organised. There aren’t enough hours in the day. So it’s something that just... slides. [Michelle, not using OEP]

Feeling overwhelmed did not delimit the use of OEP. Participants who spoke in terms of feeling overwhelmed included those who used OEP and those who did not. However, those who did not use OEP tended to cite time constraints or being overwhelmed as a factor in their decisions not to use OEP, not to use OEP for teaching, or not to use OEP to the extent that they wished.

Feeling pressure: “Negotiating all the time”

Personal-professional and staff-student boundary-keeping involve considerable thought and maintenance work, particularly when managing interactions along these boundaries. Participants described establishing boundaries and managing interactions across them as an ongoing dilemma, speaking in terms of “slippage” and “creep” when their boundary-keeping efforts were unsuccessful. Questions arise regularly. Will I ‘friend’ my colleague/line manager/PhD student? Will I tweet professionally/personally/both? Will I openly share my research/teaching materials/ideas? Boundary-keeping was described by participants as a personal process requiring continual negotiation:

I have colleagues who use it [Twitter] extremely well and it’s a great way of networking… but it was something that I was worried: was I doing it enough; was I doing it right; was I tweeting enough? Leaving it fallow for awhile and then coming back to it, and then just being so busy, you kind of decide to leave it. [Thomas, using OEP]

I’ve used privacy settings to block certain things that I post from professional colleagues on Facebook. But I still accept their invitations because I think it would be rude not to, or I would consider it rude not to. [Paul, using OEP]

The rapidly evolving norms of open practice, including open scholarly practice, are diametrically opposed to the widely-understood norms of many established academic
practices, e.g. academic publishing. As a result, academic staff often experience tensions not only in finding time to engage in OEP but also in navigating this new terrain, including continually negotiating their own rules, boundaries, and networked identities:

New forms of scholarly communication and networking, manifested as digital tools, practices, and places such as blogs and Twitter, create a tension between the struggle to establish one’s bona-fides in traditional ways, and taking advantages of the benefits of new modes of credibility, many of which are expressed via the Web. (Lanclos & White, 2015, para. 5)

Some persist with using OEP despite these challenges, but others who experience such tensions opt out of using OEP.

**Feeling worried or fearful: “Maybe I’ll be careful”**

Another tension experienced by some academic staff in relation to OEP, including participants in this study, was feeling worried or fearful about the consequences of open sharing. Academic staff may be afraid of openly publishing content that is wrong, for example:

Sometimes, what prevents me from really making the material open is a fear about the material being inaccurate. So if I make my course notes, some of the content, available to the world, and then someone clearly identifies something incorrect – well then the fallout of that is much greater than just a group of students or colleagues in the university finding that out. And occasionally that kind of thing does happen, like in a textbook someone will find out that a particular formula or claim is incorrect. It just seems the stakes are higher when you’ve completely opened the material... Maybe that’s just something, later in my academic career, I might feel – you can be wrong, so what? Just put the hands up and say ‘I was incorrect about that’. [George, using OEP]

Another fear, related more to open conversations than open content, is that of being misunderstood by unanticipated audiences:

I would be a bit cautious about ‘not representing the university’ [emphasis added by participant]. I guess it can happen that you could end up in a situation where you’re [seen] as a member of some institution, and all the other stuff is tagging with that – I don’t know. I guess I’m just a bit cautious about it. Not that I’m proposing anything so controversial or anything... It’s not that I think people in the quad are watching our every move or anything like that. But occasionally you do think – maybe I’ll be careful. [Ruth, not using OEP]

As explored earlier, concern about context collapse in networked publics is rife. Stewart (2016b) describes the inherent tensions:

Context collapse minimizes the individual’s capacity to segment audiences from diverse locales, identity positions, and life roles as s/he builds an identity on a participatory network. The risk of communications being seen by unintended audiences can create challenges and tensions. (p. 77)
Such anxieties may be exacerbated where individuals are unsure of their institution’s position regarding the use of social media or OEP in general. In institutions without social media policies or open education policies, academic staff may feel they are operating without a safety net. This is explored further in Chapter 7.

Experiencing value conflicts: “Severely compromised”

In addition to feeling overwhelmed, negotiating boundaries, and worrying about what they share openly, some participants also experienced value conflicts that affected their decisions about whether to use OEP. Several participants related their experiences of value conflicts specifically in relation to using social and dialogic forms of teaching.

Many described the burden of teaching increasingly large numbers of students. This phenomenon is associated with all mass systems of higher education but has been experienced acutely in Ireland due to a combination of reductions in staff numbers and state funding, and steadily increasing student numbers, particularly since 2008 (as described earlier in Section 4.4). Five participants described experiencing conflicts between their teaching values and their current teaching style which they attributed directly to teaching large classes. Participants who felt that their values as educators were being compromised described this as a conflict, e.g. being “forced into” lecturing and “tearing myself apart”. I include longer quotes here as they convey the depth of feeling on the part of participants:

OK, the methods that I currently use I believe will compromise my overall teaching philosophy in quite a large way. And it’s mainly due to class size and to other pressures of work… whenever you’re dealing with a class of over 100, you’re very limited in what you can do… I would rather engage the students an awful lot more. I’d rather get them to, you know, to go and read things and then come in and discuss them. And I’ve tried that, and I’ve done that in classes in the past. But I feel that if you’ve got any more than, sort of, 20, 30 in the class, then it’s not practical. I would love to do more, I suppose if that first-year class, I only had 20 in that? Oh wow, that’d be great. I would know all their names.

Q: How do you try to address or resolve that?
A: Em, shrug my shoulders and get on with it. I try to bring as much variation as I can into the lecture scenario. But I am forced into this kind of lecture scenario. [Chris, not using OEP]

Big numbers create big challenges, you know?… I have 180 second-year students. In [module name] there would be around 210 or so. So we pretty much pack out the rooms with the second-years as well. Third year then… thank God, is my one small group. And I love small groups, of course, because you can really get to know them and you can really do interesting things and naturalise the conversations you’re having with them and get the dialogue going. Which for me, actually, is really, really important – always has been. But the big groups do make that very, very challenging. [Malcolm, using OEP]

We’re teaching to the rim here. We have the second highest student-staff ratio in [discipline]. There really just isn’t capacity there… Take the discussion board on [VLE], if my class comprises 8 to 20 students I can set aside time during the week,
even each day, for engagement. But with 150, if I did that, and I conscientiously worked to encourage them – if 150 contributed, it doesn’t work. I can’t see myself, without really tearing myself apart, engaging with that. So there is that gap, where between my desires to be a fully-functioning teacher in that online capacity and the realities of the day… There’s only a handful, let’s say two handfuls, that become people, that become students in the true sense of the word, that you get to know them sufficiently enough to actually engage with their desires, with their dreams, with their capacities in a sufficient way to award them a grade that is warranted. The others, you process. You say: alright, they’ve done this and this and this. Tick, tick, tick… It’s bridging that, or managing–managing is a better word–managing that mass that is the real challenge… I tell them from the word ‘go’, this course is about you. It’s about giving you the tools, the skills, and the stories to engage with the real world, however that real world looks where you are. It’s just that my ability to do justice to that is severely compromised by numbers. That’s all that I would want to say about that. [Ed, not using OEP]

These value conflicts described by Chris, Malcolm, and Ed convey significant personal and professional discomfort. Each feels that they are not being true to their values as educators. As Skelton (2012) notes in his own study of value conflicts in higher education teaching, such conflicts are “uniquely personal but speak to shared issues and concerns within higher education” (Skelton, 2012, p. 265). The intensity and personal meaning of value conflicts may vary, and so will individual responses. However, finding “space to manoeuvre” (MacLaren, 2012, p. 163) in order to strike a strategic compromise is increasingly difficult. Four of the five participants who described value conflicts associated with large class sizes did not use OEP; one open educator, Malcolm, used Twitter to share module resources with students (i.e. using OEP as “being open” rather than “teaching openly”).

### 6.3 Dimensions shared by open educators

Four dimensions (comprising values and motives) were found to be shared by all participants who used OEP (see Figure 6.6). Each was shared by many participants: those using OEP and those not using OEP. However, all four were evident in each of the participants who used OEP.

![Figure 6.6 Values and Motives Shared by Open Educators](image)

| Strong attachment to privacy, focusing on risks | PRIVACY | Balancing privacy and openness, valuing both |
| Using ‘digital natives’ discourse | DIGITAL LITERACIES | Developing digital literacies (own and students) |
| Valuing knowledge/information transfer | PHILOSOPHY OF TEACHING & LEARNING | Valuing social learning |
| Accepting traditional teaching role expectations | CONCEPTION OF SELF AS TEACHER | Challenging traditional teaching role expectations |
**Balancing privacy and openness**: Those who used OEP described a variety of strategies for balancing privacy and openness, both as networked individuals and as educators. Participants who used OEP described striking a balance between protecting their privacy, to the level they wished, and trying to gain the benefits of openness for themselves and their students.

**Developing digital literacies**: Participants who were open educators had open, networked, Resident identities and tended to be proficient and critical users of social media and other digital and open tools. As with each of the four dimensions identified in the model, developing digital literacies was a necessary but not sufficient condition of using OEP (i.e. some participants had excellent digital literacies but chose not to use OEP). However, all who used OEP had a commitment to developing and enhancing their own and their students’ digital literacies.

**Valuing social learning**: All open educators in this study described valuing social learning as a rationale for their use of OEP. Participants who valued social learning but did not use OEP described how they sought to create social learning activities in their classrooms and/or within the VLE. Open educators sought to create social learning activities in their classrooms, but also used social media, SNS and/or other open tools to foster social learning.

**Challenging traditional teaching role expectations**: All participants who used OEP challenged traditional teaching role expectations in some way. In some cases, open educators were motivated by trying to encourage learner-centred teaching and change the traditional balance of power between teacher and student. This conception of teaching role aligns with a social constructivist learning philosophy. At least one open educator challenged traditional teaching role expectations by working around structural constraints experienced as a non-permanent member of academic staff.

Of the eight open educators, four were permanent members of academic staff and four were not. More significant, however, is the fact that *all* of the participants in this study who were non-permanent members of staff also used OEP. Each of these individuals was employed on fixed-term contracts ranging in length from three months to three years, some part-time and some full-time. This finding will be explored further in Chapter 7.

### 6.4 Student perspectives and evolving staff practices

After the detailed study of academic staff practices, values and motivations regarding openness and OEP, the study sought to include the perspectives of students – specifically students who had been invited by their lecturers to engage in open online spaces beyond the VLE. This required identifying two open educators from Phase I
who would be willing to participate, and then inviting them and their students to share their perspectives on openness, including how students assessed and responded to invitations to engage in open practices.

As described in Section 4.6.1 (page 78), I sought to maximise diversity across gender, discipline area, and employment status in selecting the two educators. I invited Diane, a permanent, full-time lecturer in a STEMM discipline, and Paul, who worked on a fixed-term, full-time contract in an ASSBL discipline. Both Diane and Paul agreed to participate in follow-up interviews with me and also to facilitate contact with their students. In summer 2016, Paul and Diane each selected one module in which they planned to use OEP in semester one (2016-17). For the purposes of this study, these two groups of students are identified as Group A and Group B, respectively (see Table 6.1). Group A comprised third-year undergraduate students in a humanities module taught by Paul; Group B comprised second-year undergraduate students in a science module taught by Diane.

### Table 6.1 Overview of Two Student Groups

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer:</td>
<td>Paul</td>
<td>Diane</td>
</tr>
<tr>
<td>Discipline area:</td>
<td>ASSBL</td>
<td>STEMM</td>
</tr>
<tr>
<td>Module discipline:</td>
<td>Humanities</td>
<td>Science</td>
</tr>
<tr>
<td>Level:</td>
<td>3rd year undergraduate</td>
<td>2nd year undergraduate</td>
</tr>
</tbody>
</table>

### 6.4.1 Evolving practices of open educators

There were two forms of ‘Using OEP’ among the eight open educators in this study (outlined in Section 5.5, page 118). Diane demonstrated the first of these: ‘being open’. Diane used Twitter to share module-related information using a module hashtag. Paul embedded open practices more thoroughly in his teaching, demonstrating both ‘being open’ and ‘teaching openly’, i.e. creating learning activities in open online spaces beyond the VLE. For both Diane and Paul, there was evidence of evolving open practice during the year between the first interviews for Phase I and the follow-up interviews in Phase II. In Diane’s case, a dramatically increased workload meant that her plans for enhanced use of OEP did not materialise. In Paul’s case, a change in his employment status led to changes in his relationship to OEP.

**Diane: Increased workload**

During our Phase I interview, Diane described how she used Twitter in undergraduate modules to try to “open up” communication within and beyond the modules. She
tweeted from her own personal account and used a module code as a hashtag for all module-related tweets. She acknowledged that student interaction with these tweets was low, but she still felt that it was useful to share information with students and let them know about relevant, useful sources of information via Twitter:

It opens the students to all these other responses and all these other things that I can retweet from other teachers and other places. It’s fabulous. It’s got its finger on the pulse more than any of the other social media. You get what people are currently talking about in your field. [Diane, Phase I]

Diane also highlighted challenges she had faced with using her own personal Twitter account for teaching:

I’m already following more than a thousand people which is hard to keep up with. And if Nature is tweeting, I don’t want to miss that. So I don’t follow back much… I don’t want to not accept the undergrads, I’m trying to encourage them to interact with it, but I’d rather use the hashtag with the students… So that’s putting me off interacting more with them in it. So maybe a separate account would be the best solution. [Diane, Phase I]

Twelve months later I met Diane for our follow-up interview. She explained that her plans for the module, in terms of using Twitter, had not materialised:

It's a little bit ironic. After our conversation, I thought: I need to open a different [Twitter] account for this. That was something that solidified for me. And then it was an extremely busy term. I didn't open the other account. Then I began to use it a little and got very little interaction. Then I dropped the idea of pushing them to interact with it and thought: I'll make an account and go with this again another time. So I was posting materials. There wasn't much coming back from them. But I don't think I gave it a concerted effort this year as I did the previous year. [Diane, Phase II]

Diane explained that her workload had increased considerably (“a lot more lectures and my workload was ridiculous”), so despite her eagerness to expand her open practice she found she wasn’t able to do this. Despite this, Diane still plans to use Twitter in her efforts to engage students:

The previous year I worked on getting them [students] into it and they did use it. You could see if you search the hashtag for the module, you can see students asking questions and answers coming back… Twitter above all other media is the ‘finger on the pulse’. That's how I describe it to them. If they want to know what current experts who speak out know about something, this is where they should be. [Diane, Phase II]

Overall, Diane remains committed to using Twitter to widen conversations within and beyond the module. She is not averse to using other forms of OEP. For example, she has reviewed open textbooks in her field but has not yet found one that is suitable. About teaching with Twitter, she was clear: “I do feel it impacts learning.” Diane plans to continue using Twitter as a form of OEP:

So I think my next model will be to push it again, like I did the year before this year, but to make it a separate account. And possibly see if I could get the other lecturers interested in using the same course account where it was any general [science]
Chapter 6. Using Open Educational Practices

discussion or questions – because there would be other people here with an interest in open learning mechanisms as well. [Diane, Phase II]

**Paul: Change in employment status**

During our Phase I interview, Paul described the variety of ways he used OEP. Firstly, he explained his decision to host his modules on WordPress blogs rather than the VLE:

The reason I established them was, I found them often easier to use than [VLE], greater flexibility in presenting the material. In seminar evaluation forms, students tended to say that they preferred using them to using [VLE]… They say that all the material that they need is there. And generally, for the courses that I have those websites, I do get fewer queries, fewer practical questions about ‘when is this due?’, ‘where is this article?’… That’s quite a common piece of feedback that I get. [Paul, Phase I]

Paul also used Twitter for teaching in several ways, beginning by asking students to use a Twitter account for the module. He shared resources via Twitter using a module hashtag, conducted occasional class Twitter chats with authors whose work they were studying, and asked students to tweet their notes on module readings. Paul found that student activity on Twitter tended to be low, and also that there were some challenges related to context collapse:

Some of them have gotten... let’s say... embarrassed by using their personal existing Twitter accounts for scholarly activities. I’ve seen, you know, their friends mocking them for this. I’ve seen, on one or two occasions, friends of students in my class using the class hashtag for undesirable purposes, shall we say. I’ve had to block people. But it hasn’t happened a lot. [Paul, Phase I]

Fourteen months elapsed between our Phase I and Phase II interviews. Paul described using module WordPress blogs in the same way, but slightly changing the use of Twitter to try to enhance student learning:

I'm using this in a similar way to what I described in our last conversation, but it has changed as well. The primary idea is to have students live-tweet about their advanced reading… I used to leave it quite generally up to the students themselves to post a tweet or two about their reading. What I've done now is I've created a class Twitter account and a student curates it for the week. I encourage them to actually live-tweet while they're completing their reading rather than just read and post one or two observations. This has seen a lot more activity from the students. I think they have a greater sense of what's expected of them. [Paul, Phase II]

Taking on board the previous issues related to context collapse, Paul now recommends that students create a separate account for the module: “a shell account, separate from their own Twitter identity.” He invites students to get started using Twitter at the start of the module:

At the very beginning I asked them to start the account, follow me, follow their classmates, and follow at least 10 [module-related] scholars – simply to illustrate to them that there is a wealth of information out there, circulating in the Twittersphere, that will be of interest to them. Everything is not located in scholarly journals or in the
books. So, follow [module-related] scholars and you will see your feed start revealing these interesting things to you. [Paul, Phase II]

When asked what he hoped students would learn by using a tool like Twitter, Paul was clear:

New ways or new environments in which information circulates that are relevant to them. New ways of communicating with each other or just of articulating their ideas, and I guess the confidence to do that as well. [Paul, Phase II]

A few months before our second interview, there was also a dramatic change in Paul’s employment status: he obtained a permanent employment contract after having worked for several years (in the same department) on fixed-term contracts. He spoke of his delight about this, not just for the career security but in relation to his open practice:

I'm now tenured, I have a permanent contract here. I think I've become a little more relaxed about my Twitter use since then, and how it relates to my professional identity and perceptions of it. I think I would have been more hyper-conscious of that when I was an adjunct. I'm a bit less so now... I have academic colleagues with whom I am friends as well, who are on Twitter. So I have had the occasional non-professional conversation, not un-professional conversation. I guess in previous times I would have been less inclined to do that but I guess I've loosened up a bit more about that. [Paul, Phase II]

Both of these examples of evolving practice, on the part of Diane and Paul, highlight the personal, contextual, and dynamic nature of open educational practice, particularly the impact of structural factors as well as individual agency in academics’ decisions related to the use of OEP.

### 6.4.2 Student perspectives on openness and OEP

Academic staff who choose to use OEP do so in different ways and for a variety of reasons. But how do students respond to academics’ invitations to engage in open practices? Research question #4 focused on the student perspective, i.e. How do students respond to open educators’ invitations to engage in open educational practices? Based on Phase I results and follow-up interviews with two lecturers, I designed a student survey to gather information from students in three areas: digital identity, digital practices (social and academic), and responding to lecturers’ invitations to use Twitter (module-related Twitter activity was the ‘use of OEP’ common across both groups of students). The student survey can be found in Appendix IX; an overview of the survey is shown in Table 4.11 (page 100).

A summary of student responses with respect to openness and OEP is shown in Table 6.2 and described below. Except to make a few tentative observations, responses for the two student groups are considered together, due to the low number of students participating in Group A.
Table 6.2 Summary of Student Responses

<table>
<thead>
<tr>
<th>Digital identity</th>
<th>All Respondents (n=62)</th>
<th>Group A (n=9)</th>
<th>Group B (n=53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes use different identities</td>
<td>24%</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>Don’t use different identities</td>
<td>76%</td>
<td>75%</td>
<td>76%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most used social media apps</th>
<th>Facebook</th>
<th>Snapchat</th>
<th>WhatsApp</th>
<th>Instagram</th>
<th>Twitter</th>
<th>LinkedIn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95%</td>
<td>87%</td>
<td>69%</td>
<td>69%</td>
<td>40%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>89%</td>
<td>78%</td>
<td>78%</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>94%</td>
<td>87%</td>
<td>68%</td>
<td>68%</td>
<td>36%</td>
<td>24%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If invited to use Twitter by lecturer (n=8)</th>
<th>I don’t participate</th>
<th>I check once or twice</th>
<th>I check sometimes</th>
<th>I engage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>43%</td>
<td>34%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>50%</td>
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<td>25%</td>
</tr>
<tr>
<td></td>
<td>46%</td>
<td>31%</td>
<td>18%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Digital identity**

Responses to the open question “How would you describe your digital identity?” were diverse. Coding the 26 written responses resulted in three broad categories: *active*, *average*, and *quiet*. The least common self-characterisation (5 of 26) was active, i.e. “active”, “sporty”, “strong”, “popular”, and “confident”. Slightly more responses (7 of 26) were coded in the *average* category, i.e. “average” (5 responses), “normal”, and “honest”. The most common self-characterisation (14 of 26), however, was *quiet*, with individual students describing their digital identities as “private” (3 responses), “quiet” (2 responses), “sparse” (2 responses), “anonymous”, “under the radar”, “not well-established”, “not very ‘out there’”, “in the background”, “non-existent”, and “I don’t have one”.

- I don’t really have a digital identity. I only use social media to keep in contact with family and friends from home. I don’t use it to build up an identity or following.

- Under the radar, I just look, rarely share information, mainly use it to look at dog/pet videos on Facebook timeline.

- I have a relatively strong digital presence, but prefer to keep a lot of things private.

Overall, students’ own characterisations of their digital identities paint a somewhat different portrayal to that assumed by some academic staff, including some participants...
in this study who perceived high levels of student activity and openness on social media:

Q: Do you know how your students use social media?

A: I think students use social media a lot, but not always for teaching or any academic-related activity. I think they’re very comfortable with social media generally. [George]

A: They’re surprisingly open, I find. I suppose I have looked at student profiles on Twitter if they’ve followed me. [Joe]

A: One assumes that they’re at it all the time, to put it mildly. [AI]

A further question about digital identity focused on anonymity: “Do you ever use different identities (e.g. usernames, avatars) on different social networks? Why or why not?” About a quarter of respondents (24%, see Table 6.2) replied that they sometimes used different digital identities. A few mentioned using anonymity strategically in order to protect their privacy in general, or specifically to protect their privacy with respect to potential/future employers. Others described using different names on different platforms as a means of maintaining privacy and avoiding context collapse:

I use a different name on Instagram… in an attempt to keep it more private. When dealing with accounts that I don’t want all of my connections/friends knowing that I have… to keep it to my close friends.

A username is used on Tumblr to protect my identity, as it is a public profile that strangers would be following.

Most student respondents (76%), however, replied that they did not use different digital identities on different social networks. In describing their reasons, students revealed that they saw the use of different identities on different social networks as somehow inauthentic: “I am proud of who I am”, “I am who I am”, “why lie?”, “I find that strange”, “I think it is creepy to do so”, “no, not a catfish.”

Anonymity is conceptualised as “constellations of partial unknowability, invisibility and untrackability”, and in the context of surveillance and platform capitalism, can be seen as fostering freedom from the commodification of the social (Bachmann, Knecht, & Wittel, 2017, p. 243). Yet student respondents were overwhelmingly averse to embracing anonymity in the contexts of their own social networks. This will be explored further in Chapter 7.

Digital practices: social and academic

The six social media applications used most often by student respondents were Facebook, Snapchat, WhatsApp, Instagram, Twitter and LinkedIn; the first four were the most popular. The primary use of social media by student respondents was to communicate with family, friends, and fellow students. Very few respondents said they
used social media for academic purposes. Many acknowledged the ease of getting distracted by social interactions when using social media for academic purposes:

| I find the social aspect distracting while sourcing academic information. |
| Sometimes there is an overlap if I’m on my phone sending some info in a group chat on Facebook and I get a text or snapchat, I will check my other accounts and get side-tracked. |

The propensity to be distracted due to mobile devices and the ‘always on’ nature of the internet has arisen in other recent studies of third-level students, albeit in ways that are context-specific. In Selwyn’s (2016) study of 1658 students at two Australian universities, 25% of students reported finding technology to be a distraction and source of procrastination – particularly smartphones, social media, and the use of digital devices by other students in lectures (Selwyn, 2016). In Newman and Beetham’s (2017) analysis of data from Jisc’s Student Digital Experience Tracker (a survey of over 22,000 students at 74 UK universities), 24% of students reported being easily distracted when “digital technology is used on my course” (Newman & Beetham, 2017, p. 21). Yet in a South African study where mobile phone ownership was ubiquitous among students but few had exposure to computers prior to coming to university, many students were found to use their phones strategically for academic purposes (Czerniewicz & Brown, 2013). In analysing students’ digital mediated practices in context, Czerniewicz and Brown (2013) concluded that institutions could engage in mobile learning opportunities to a greater extent, particularly within “educational contexts faced with social and digital inequalities” (p. 52).

In another aspect of students’ digital practice in this study, aligning with the concerns of academic staff, many students mentioned privacy as an important consideration with respect to their social media engagement. This included a desire to avoid context collapse:

| I only use Twitter for viewing tweets of friends and peers, and didn’t want to use it for work. |
| You’re too Google-able these days, for future prospects I keep professional and social very separate. |

Students employed various strategies for dealing with this tension. These included using social media for social use only, and not academic work; using different tools for different purposes (e.g. “email for serious communication and Facebook for casual communication”); and using different devices for different purposes (e.g. phone for social, laptop for academic work).
Responding to lecturers’ invitations to engage openly online

In terms of responding to lecturers’ invitations to use Twitter, student engagement was very low. Fewer than one in ten students chose the “I engage” response (see Table 6.2). Close to half (43%) did not engage on Twitter at all, 34% engaged once or twice, and 15% engaged sometimes. The level of engagement appears somewhat higher among Group A respondents, but with only 8 students responding, this cannot be used as a reliable differentiator between student groups.

Responses to an open question: “What are your reasons for participating, or not participating, in module Twitter activity?” were fairly consistent. The small number of affirmative responses (3 of 25) cited “interest” and “keeping up to date”. However, most of those who answered this question (15 of 25) said they didn’t use Twitter and/or didn’t want to use Twitter in relation to formal academic work. Further explanations of these responses included lack of time, worries about context collapse, and concerns about digital identity and voice: “Maybe I haven’t so as not to seem like ‘instructing’ peers on what’s important.” These results suggest that balancing privacy and openness (see Section 6.1.1, page 123) are issues of concern for students as well as academic staff.

Other research studies also have found mixed results with respect to students’ learning and their use of social and participatory media and other open educational practices, citing “theoretical tensions and practical challenges” (Dohn, 2009, p. 343) in trying to utilise open practices for educational purposes. Undergraduate students tend not to use social media in the context of formal education (Kuhn, 2017; Tess, 2013), with many reluctant to engage with web-based tools to mediate formal learning, citing worries about grades and perceptions of the internet as “too open and loose, generating anxiety and uncertainty” (Kuhn, 2017, para. 1). In the face of such challenges, however, Facer and Selwyn (2010) claimed that “learners need to practice and experiment with different ways of enacting their identities, and adopt subject positions through different social technologies and media” (p. 166). Overall, previous research in the area of open practices highlights two key findings: the importance of context, and the necessity of acknowledging and building on students’ existing concerns and practices, or “technological habitus” (Czerniewicz & Brown, 2013). This understanding provides a foundation for educators to support students’ capacities to make use of their own tools and technologies, as well as those they will encounter at university. The overall goal, as summarised by Selwyn (2017), is for “university authorities and academics to more readily recognize and work with the realities of digital technology use and the student experience” (p. 1021).
Conclusion

This chapter began by exploring the reasons for academic staff participants’ choices with respect to using OEP. Overall, four categories accounted for participants’ decisions of whether (and to what extent) to use OEP for teaching: privacy, digital literacies, philosophy of teaching and learning, and conception of self as teacher. The issue of most concern amongst participants, all across the continuum of ‘less’ to ‘more’ open practices, was negotiating privacy.

Four dimensions (i.e. values and motives) were shared by all academic staff participants who used OEP for teaching. The first was balancing privacy and openness. Open educators described striking a balance between protecting their privacy and gaining the benefits of openness for themselves and their students. The second dimension shared by open educators was developing digital literacies. Open educators sought to develop and enhance their own and their students’ digital literacies. The third and fourth dimensions shared by open educators in this study were valuing social learning and challenging traditional teaching role expectations.

Student concerns about digital and open practices mirrored many of the concerns of academic staff, e.g. managing privacy and digital identity, digital distraction, and context collapse. The decision to use OEP is influenced by educators’ values and motives. Findings related to students’ responses (albeit limited) indicate that the use of OEP for teaching is likely to be most effective if based on an understanding of students’ technological habitus, including their existing digital identities and practices, and their concerns regarding networked practice. The following chapter synthesises all of the findings presented in Chapters 5 and 6, including further interpretation of the findings and how they have been, and could be, applied.
Chapter 7. Discussion

The grounded theory model, ‘Using OEP for teaching’, is discussed in detail in this chapter. Section 7.1 discusses the development of the grounded theory, aggregating the findings presented in the previous two chapters and highlighting how each of the research questions is addressed in the theory. Section 7.2 discusses the overarching finding of the study, i.e. that the use of OEP is personal, complex, contextual, and continually negotiated.

7.1 Developing the grounded theory

The grounded theory emerging from this study reflects the concerns and conceptions of openness expressed by the academic staff participants. Although familiar with the scholarly literature in the areas of open education, digital literacies, and digital identity, I did not structure the study or begin the analysis with these concepts as a framework. During Phase I interviews, I asked academic staff to describe the online tools and spaces they used for research, learning and teaching, and then invited them to elaborate on their responses. Analysis of the data facilitated a deep understanding of the complexities of participants’ digital, pedagogical, and open practices, as well as their digital identities, role identities, philosophies of teaching and learning, assumptions, and values.

Data was gathered and comparisons were made among participants who used open practices in a variety of ways, but also between those who used open practices and those who did not. Studying educators across a continuum of ‘less’ to ‘more’ open practices helped to clarify the factors that both encourage and inhibit the use of OEP, as well as to identify and illuminate the dimensions shared by open educators. Findings in relation to research question #2 (Why do/don’t individual members of academic staff use OEP for teaching?) and #3 (What dimensions are shared by academic staff who use OEP for teaching, if any?), for example, would not have been possible without this approach.

Figure 7.1, on the following page, shows the full grounded theory model, the development of which I will now discuss.
Figure 7.1 Grounded Theory: Using OEP for Teaching
Chapter 7. Discussion

Digital practices

The first set of findings related to participants’ digital practices (top half of Figure 7.1). Academic staff used a wide variety of digital practices and assessing the ‘openness’ of practices was not straightforward. It was apparent early in the analysis that there was no single profile of an ‘open educator’. Many participants described using open tools and practices with some groups but not others, for some purposes but not others, and in some contexts but not others. Thus, the importance of context had to be captured in the grounded theory model. In terms of digital networking, for example, most participants used social media tools – but this ranged from personal use only, to personal and professional use (but only for research activities), to personal and professional use including teaching. All who used open, networked, Resident identities and practices were identified as using foundational open practices (yellow shading in Figure 7.1). However, those using OEP for teaching also used open tools and/or social media to engage with students (green shading in Figure 7.1). The grounded theory model provides a way of accounting for such differences through the use of different categories of digital practices.

Participants’ minimal use of OER also posed challenges during analysis. Although many participants shared free online resources with students, there was relatively little awareness of open licensing or of the term ‘OER’. The institution does not have an OER policy and thus there were no formal guidelines or encouragement to use, create, adapt, or share OER. Professional development modules offered by CELT (specifically a Learning Technologies module) introduce academic staff participants to these concepts. However, these modules are entirely optional and are completed by a relatively small number of academic staff each year. All definitions of OEP include the use of OER. However, given the evidence of open, learner-centred pedagogical strategies, along with minimal use of OER, it was unreasonable to use a specifically OER-focused definition of OEP for this study. An expansive conceptualisation of OEP was used, guided by participants’ descriptions of their own practices.

Values and motives

Delving beneath practices, the next set of findings related to the reasons for participants’ choices with respect to openness and OEP, i.e. the values and motives underlying those choices (lower half of Figure 7.1). Values and motives in four areas were found to be significant factors in determining whether educators chose to use OEP. These areas are: privacy, digital literacies, philosophy of teaching and learning, and conception of self as teacher. The process of identifying these areas was gradual (shown in the evolution of codes and themes in Tables 4.5, 4.6 and 4.7, starting on page 88), based on analysis of participants’ narratives describing how and why they used specific practices.
The four dimensions shared by all academic staff participants who used OEP for teaching were: (i) balancing privacy and openness, (ii) developing digital literacies, (iii) valuing social learning, and (iv) challenging traditional teaching role expectations (lower-right, blue shading in Figure 7.1). Analysing these dimensions further, relationships between dimensions could be discerned. These are illustrated in Figure 7.2.

Firstly, interrelationships were evident within each pair of dimensions. The inner pair of dimensions is *Balancing privacy and openness* and *Developing digital literacies*. Open educators used open, networked, Resident identities and practices, and also demonstrated a commitment to developing and enhancing digital literacies, both their own and those of their students. These individuals described striking a balance between protecting their privacy, to the level they wished, and trying to gain the benefits of openness for themselves and their students. The ability to balance privacy and openness depends, in large part, on awareness of and ability to manage privacy, identities, and activities across various tools and spaces, i.e. digital literacies. Thus, there is a strong relationship between these two dimensions.

An interdependency also was evident between the outer pair of dimensions: *Valuing social learning* and *Challenging traditional teaching role expectations*, at least for some participants who used OEP. The dominant teaching style in higher education still tends towards behaviourist approaches (C. Brown, Czerniewicz, & Noakes, 2016; Rowe et al., 2013). As highlighted by several participants in the study, structural factors such as heavy teaching loads and large classes can reinforce this tendency. Many participants expressed a preference for social forms of learning, describing ways in
which they sought to move beyond lecturing and encourage student activity in the learning process. Some participants married these social constructivist approaches with open pedagogies, encouraging students to engage in open online spaces beyond the VLE. In these cases, open educators’ social constructivist teaching philosophies provided at least some of the motivation for challenging conventions with respect to teaching methods and tools.

In addition to interrelationships within each pair, another property of the four dimensions is that they operate at multiple levels. The outer dimensions operate at one level: clearly related to academics’ roles as educators. The inner dimensions, however, operate at two levels: values and motives as educators as well as networked individuals. Apart from the few participants who opted out of most networked participation due to their strong attachment to privacy, most participants sought to balance privacy and openness. However, participants who were open educators balanced privacy and openness in ways that enabled them to engage openly not just with peers, but also with students. Through their use of OEP, open educators worked to support the development of students’ digital literacies as well as their own.

Overall, the grounded theory model enables analysis of a wide range of individual practices, across a continuum of ‘less’ to ‘more’ open, and can help to identify specific ways to support staff, students, and learning (explored further in Chapter 8).

7.2 Use of OEP is complex, personal, contextual, and continually negotiated

The grounded theory helps to identify the ways that individual values and motives, mediated within various structural and cultural contexts, both enable and constrain the use of open educational practices by academic staff. The overarching finding is that the use of OEP is complex, personal, contextual, and continually negotiated. These aspects are summarised below, beginning with the personal.

Personal

Use of OEP is always personal, as open educational practices not only build on a digital identity, but rely on personal values related to privacy, individual philosophy of teaching and learning, and conception of self as a teacher. Traditional forms of academic identity are institutional, disciplinary, and role-based, communicated by identity markers such as academic titles (e.g. Dr., Prof.), role titles (e.g. lecturer, head of department), and designations of department/school and institution. Engaging in open online spaces requires the creation and enactment of open, networked identities, apart from institutional identities and much of the social capital accruing with those identities. Networked publics and networked practices “demand the construction,
performance, and creation of intelligible public identities as a price of admission” (Stewart, 2013b, p. 6). Educators build such identities through spending time on social media platforms, sharing the “signals and artefacts of academic identity” and thereby experiencing “a sense of social presence” (White & Le Cornu, 2011, section III.1, para. 2). Open, networked identities and practices are foundational practices of open educators, i.e. practices on which open pedagogies, open sharing of teaching practices, and all other forms of OEP are built.

Open educators may experience tensions between enactment of their open identities/OEP and traditional scholarly practices (Dron & Anderson, 2014; Stewart, 2015b; Weller, 2014; Zourou, 2017). From this perspective, “engagement in OEP communities is far from being a natural act” (Zourou, 2017, para. 35). This tension is not experienced equally by all academics. The eight open educators in this study included all four participants who were not permanent, full-time members of staff. Academic staff who are employed on fixed-term contracts, for example, rely on renewal of their contracts and thus may feel it necessary to pay more attention to performativity in networked publics. This emerged during interviews with two of the participants in this study who were employed on fixed-term contracts:

> Because when you’re on part-time contracts and you’re not sure if you’re going to be teaching next semester you need to be developing other avenues. [Vincent, using OEP]

> I’m quite conscious of that horrible word ‘optics’, of sharing the research that I’m doing and getting it out there and having people see what I’m doing. I think it’s important. It’s increasingly necessary professionally, as far as I can see. [Paul, using OEP]

Open practices and networks can be ways for those who work in the margins of institutions to increase their status and their reach, beyond the bounds of their current institutional positions. Use of OEP may provide valuable opportunities for connection, recognition, and development, as described by Stewart (2016) in relation to academics’ use of Twitter:

> Particularly for (English-speaking, neurotypical) scholars who are isolated, disillusioned, marginalized, or junior in their institutional scholarship, Twitter participation and NPS [Networked Participatory Scholarship] more broadly can be paths to connection, mentorship, care, and even status and offline opportunity as they develop resident identity and visibility practices on the platform. (p. 82)

In some contexts, academic staff who feel marginalised may simply feel that the investment and risks of open practice are too great (Stewart, 2016) – although this did not emerge in this study.

**Contextual**

While all in higher education operate within the broader culture, i.e. increasingly open, networked and participatory culture, and the rise of surveillance and platform
capitalism, consideration of specific context is important. Contexts at various levels include the institutional, disciplinary, departmental, and an individual’s specific position (as noted in the previous section). Institutional context includes institutional culture, policies, structures, and forms of support, including professional development. Obstacles to open education may be greater at research-intensive universities, or in particular contexts where there are tensions between research and teaching, with a privileging of the former over the latter (Masterman, 2016). In terms of openness, the research setting for this study was a research-intensive university without strategies or policies regarding open practices or OER. Thus, the overall low awareness and practice with respect to open licensing and OER is unsurprising. Several studies have suggested that institutional policy (Corrall & Pinfield, 2014; Lesko, 2013; Reed, 2013) and institutional culture (Cox & Trotter, 2016) are important supporting factors for academics to share teaching materials as OER.

Academics also work within specific disciplinary contexts (with their own unique cultures, structures, and forms of support) which play a role in educators’ choices regarding OEP. Participants in this study from Social Work and Medicine, for example, specifically highlighted the need to support their students in learning how to judiciously navigate networked publics in ways particular to those professions. Participants in English and Psychology did not describe such constraints. This highlights disciplinary differences between “applied” vs. “pure” disciplines, as described by Biglan (1973).

Disciplinary contexts influence academics in other ways also. Academics make decisions regarding openness in specific disciplinary/departmental contexts and are likely to be influenced by others’ expectations. This was the case for some participants in this study. Paul, for example, chose to accept Facebook friend requests from disciplinary colleagues because he thought “it would be rude not to, or I would consider it rude not to”. And George made decisions about whether to ‘friend’ his PhD students by checking to see what his immediate colleagues did: “You’re sometimes checking to see ‘have they got their PhD students?’ because you don’t want to be this overly formal, officious type person.”

Archer’s (2003) social realist theory is a useful framework within which to consider the various ways that context operates in individual academics’ choices regarding openness. Archer identifies three interdependent strata of reality: structure (e.g. institutional systems, policies), culture (e.g. norms, ideas, beliefs), and agency (individual freedom to act). According to Archer’s (2003) “morphogenetic cycle”, the interrelations between structure, culture and agency occur over time. The powers of structure and culture exist, but are only activated when human agents seek to act. Human reflexivity is the mechanism that mediates between structure and agency, moving from confronting constraints to elaborating a course of action (Archer, 2003, 2007a). Archer (2003) notes that structural/cultural properties have generative powers
of both enablement and constraint. Open education researchers who have used Archer’s framework to analyse academics’ use of OER have found that the absence of open education policy can act as a constraint to OER awareness and use (Cox, 2016; Cox & Trotter, 2016; Hodgkinson-Williams, 2010). Based on the findings of this study, a similar constraint effect appears to apply with respect to OEP. Archer’s (2007b) notion of an ‘active agent’ offers insight into why academics may decide to use OEP, or not:

Being an ‘active agent’ hinges on the fact that individuals develop and define their ultimate concerns, those internal goods that they care about most and ... [seek] to develop a course(s) of action to realise that concern by elaborating a project.... If such courses of action are successful, which can never be taken for granted, [these are] translated into a set of established practices. ... In shorthand, these components can be summarized in the formula: Concerns => Projects => Practices. (p. 42)

The challenge is to understand the extent to which academics have an ‘ultimate concern’ (Archer, 2003) about openness and using OEP, and how this can be realised in an enabling environment that encourages and supports rather than constrains and inhibits the use of OEP, whilst also respecting the individual choices of academics regarding openness. The identification of four dimensions shared by open educators, shown in the grounded theory for this study, helps to illuminate these concerns.

Continually negotiated

Openness is not binary and it is not a one-time decision. The use of open educational practices is continually negotiated by individuals within their various contexts. In analysing how participants sought to balance privacy and openness, particularly with respect to interacting with students in open online spaces, I identified four distinct levels of negotiation: macro (global level), meso (community/network level), micro (individual level), and nano (interaction level). Differentiating between these levels proved helpful in understanding academic staff negotiation and decision-making with respect to open practices (see Figure 7.3).

Individuals enact a balance between privacy and openness on an ongoing basis and in a multitude of ways. Such complexity makes questions such as ‘do you use Twitter?’ or ‘do you have a blog?’ of little use in understanding why and how educators use OEP. To enable a deeper analysis of participant meaning-making and decision-making regarding privacy and openness, I identified different levels of analysis in participants’ descriptions of their decisions regarding whether and how to use open practices. These can be mapped to generic analytical levels used in social science, as identified by Blalock (1972). Blalock described three levels of analysis: micro-level, meso-level and macro-level. Micro-level analysis corresponds to the individual in their social setting; meso-level analysis relates to a community or organisation; and macro-level analyses trace the outcomes of interactions over a large population, e.g. national or global. These levels of analysis are not necessarily mutually exclusive, but they are useful in
highlighting the location or scale of a research attribute. For interaction-level considerations which were present in the data, I added a fourth level: nano-level.

![Figure 7.3 Negotiating openness at 4 levels](image)

In this study, at the **macro** level, individuals make decisions about whether to engage in open sharing and networking, e.g. using SNS. Individuals with a strong attachment to privacy may elect not to use any SNS, for example, while those who wish to share may choose to use one or more tools. At the macro level in this study, participants who did not use open practices at all, or who elected not to use OEP for teaching, expressed various reasons for choosing not to share openly. Some described wanting simply to avoid the noise of open streams, others had a strong attachment to their personal privacy, thus opting out at this level. As one participant, Carol, explained: “It’s not just a question of privacy. It’s a question of having a bit of time or space for myself. I need a tremendous amount of solitude.” All who consider engaging in open practices, however, must think through questions at three further levels.

At the **meso** level, individuals consider whom they would like to share with (e.g. family, friends, professional colleagues, students, various interest groups, the wider public) as well as those with whom they do not want to share. At the meso level in this study, participants described a complex and ongoing process of personal rule-making about whom to friend/connect/communicate with. In some cases, decision-making was clear-cut: “I definitely don’t accept friend requests from people I don’t know”, while in other cases participants described more nuanced and context-specific decisions, influenced by the social norms in their discipline.

At the **micro** level, individuals make decisions about who they will share as. Micro decisions regarding openness relate specifically to an individual’s sense of their digital identity and their sense of agency in managing that identity. At the micro level in this study, about half of the participants saw the merits of having an open digital identity and sharing this with students. For some, like Diane, the feeling is that this is “part and
parcel of being an academic”. However, others did not view their open digital identities as integral to their roles as educators, such as John, who doesn’t mind if students follow him on social media, or “find stuff” that he has written online, but does not encourage this “as part of the teaching, or their relationship with me as their teacher”. Digital identity issues raised in this study concur with findings from previous studies by Veletsianos (2013) and others, i.e. “an increasing tension between personal and professional identity, the spectrum of sharing that lies between the two, and the perception of what a scholar is and what she/he does” (p. 96).

Finally, at the nano level, individuals make decisions about individual open transactions, e.g. will I share this? Individuals decide whether to interact or share something particular, e.g. to post, to tweet or retweet, to use a specific tag or hashtag, to like, to follow or to friend:

It’s not that I think people in the quad are watching our every move or anything like that. But occasionally you do think, maybe I’ll be careful. [Ruth, not using OEP]

For most participants in this study, regardless of their level of openness, open practice was experienced as a process of continual reflection, negotiation, and occasionally anxiety. A significant finding of this study was that continual negotiation was a factor for open educators as well as by those not using OEP. Continual negotiation occurred at every point on the open practices continuum.

Considering these four levels – macro, meso, micro and nano – helps to illuminate the personal and complex negotiations described by academic staff regarding whether and how to use open and participatory tools, and whether and how to use OEP. Formal and informal professional development initiatives may focus at the top or macro level, e.g. describing the benefits of sharing, and supporting staff in learning how to use various social media tools. But the complex and ongoing work of open educational practice happens beneath, at the meso, micro and nano levels, where issues around context collapse and digital identity are negotiated. Professional development initiatives that support academics in reflecting on and managing key issues related to digital identity, privacy, and context collapse, for example, are likely to be most useful.

While the ‘negotiating openness’ model was developed to describe how academic staff seek to balance privacy and openness, responses from students in Phase II (albeit limited) suggest that these issues also are relevant for students. In the context of learning design, for example, making macro decisions about using a particular social media tool (such as Twitter) is not sufficient. A considered approach would also consider meso issues such as the potential for context collapse for students and micro issues such as digital identity and student voice. Student responses with respect to digital identity and anonymity indicated a limited engagement with the productive possibilities of multiple identities and anonymity. In an age of increasing surveillance
(Srnicek, 2016; Tufekci, 2014; Vaidhyanathan, 2011; Zuboff, 2015), anonymity can be considered socially productive and an aspect of critical digital literacy (Bachmann et al., 2017; Nissenbaum, 1999, 2010). At a minimum, findings with respect to students in this study confirm this as a fruitful area for further research.

Complex

Finally, the dualism ‘closed’ vs. ‘open’ is not used in this study as it fails to adequately portray the range and complexity of the digital, scholarly, and pedagogical practices of academic staff. Even the terms ‘less’ and ‘more’ open, as aggregate descriptors, mask some variation and complexity. One example is academic staff who used open tools, without making themselves visible, to curate resources for themselves and their students and to develop their own and their students’ digital literacies, particularly critical digital literacies. Such individuals would be classified as ‘Visitors’ in the Visitor/Resident continuum, i.e. engaging on the Web without leaving a social trace (White & Le Cornu, 2011, 2017). By not using OER, or any other forms of OEP, they would not be considered ‘open educators’. And yet, academic staff making these strategic choices are educating themselves and their students about relevant digital resources for their disciplines and drawing on their experiences to educate students about issues such as digital identity, surveillance, and privacy. Such strategies align with Mejias’s critique of networks. Mejias (2011) contends that we do not have to be visible in networks in order to develop critical awareness about the application of digital networks in the learning process. This strand of critical practice, while not an example of using OEP, shares at least some of the aims of OEP and openness, i.e. to enhance learning and to empower learners. This also represents a fruitful area for future research.

To conclude this chapter, Table 7.1 summarises the findings for each of the four research questions and identifies where each of the research questions is addressed in the overall grounded theory model.
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Figure 7.4 Overview of Research Questions and Grounded Theory Model

<table>
<thead>
<tr>
<th>Research question</th>
<th>Applicable section of the model (see Fig. 7.1)</th>
<th>Summary of findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ 1. In what ways do academic staff use OEP for teaching?</td>
<td></td>
<td>Academic staff used a wide variety of digital practices. Assessing the ‘openness’ of practices is complex; openness is not binary. Academic staff practices were mapped across a continuum of ‘less’ to ‘more’ open. Many academic staff used open digital identities and open networking tools for research; far fewer used open educational practices for teaching. There was little intentional use of OER or open licensing amongst participants. Open digital identities and networking were foundational practices of academic staff who used OEP for teaching, i.e. practices on which open pedagogies, open sharing, and all other forms of OEP were built. [see Chapter 5]</td>
</tr>
<tr>
<td>RQ 2. Why do/don’t individual members of academic staff use OEP for teaching?</td>
<td></td>
<td>Overall, four categories were associated with educators’ decisions of whether (and how) to use OEP for teaching:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• PRIVACY: The issue of most concern was privacy, particularly how to balance privacy and openness.</td>
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<td></td>
<td></td>
<td>• DIGITAL LITERACIES: Digital natives discourse emerged, particularly amongst those not using OEP. About half of participants embedded digital literacies in their teaching.</td>
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<td>• PHILOSOPHY OF TEACHING AND LEARNING: Many participants, across the continuum of ‘less’ to ‘more’ open practices, valued social learning (a foundation of OEP).</td>
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<td>• CONCEPTION OF SELF AS TEACHER: Participants who used OEP challenged traditional teaching role expectations in various ways. [see Section 6.1]</td>
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</table>
RQ3. What practices, values and/or motives are shared by academic staff who use OEP for teaching (i.e., ‘open educators’), if any?

Four dimensions (values and motives) were shared by all academic staff participants who used OEP for teaching:

- **Balancing Privacy & Openness**: Open educators described striking a balance between protecting their privacy and gaining the benefits of openness for themselves and their students.

- **Developing Digital Literacies**: Open educators had a commitment to developing and enhancing their own and their students’ digital literacies.

- **Valuing Social Learning**: Open educators described valuing social learning as part of their rationale for using OEP.

- **Challenging Traditional Teaching Role Expectations**: All open educators challenged traditional teaching role expectations, but for a variety of reasons.  
  [see Section 6.4]

RQ4. How do students respond to open educators’ invitations to engage in OEP?

Student concerns about digital and open practices mirrored many of the concerns of academic staff, e.g., managing privacy and digital identity, digital distraction, and context collapse.

The decision to use OEP is influenced by educators’ values and motives. Findings related to students’ responses indicate that the use of OEP for teaching is likely to be most effective if based on an understanding of students’ technological habits, including their existing digital identities and practices, and their concerns regarding networked practice.

[see Section 6.5]
Chapter 8. Conclusions

In this final chapter, I briefly review the research study, paying particular attention to its contributions to knowledge, practice, and policy. I consider the quality and limitations of the study as well as recommending areas for future research, before concluding with my final reflections.

8.1 Summary of the research study

I began this research study with a question: In academic settings in which the use of open educational practices is not required, requested, expected, or specifically supported, why do some educators, and not others, choose to use OEP? I believe the answers to this question can help us to better understand the forces and factors that enable and constrain open education within higher education, and thus identify areas for policy and practice. The aim of the study was to understand whether, why, how, and to what extent academic staff used open educational practices, specifically with respect to teaching, and also to identify any shared characteristics among those who used OEP (i.e. ‘open educators’). The study is positioned at the nexus of three broad areas – increasingly networked, open, and participatory culture, the changing landscape of higher education, and open education.

Chapters 2 and 3 provided the historical and theoretical background to the study. The widely-used concepts of the network society (Castells, 2010), networked individualism (Rainie & Wellman, 2012; Wellman, 2002), and participatory culture (Jenkins et al., 2009, 2015) describe the rapidly changing sociotechnical context within which higher education operates. In recent years, a growing number of critical theorists have added nuance to these analytical frameworks by also exploring how power and privilege operate in networks and the implications for individuals, institutions, and society (Emejulu & McGregor, 2016; Jenkins et al., 2015; Marwick, 2013; Mejias, 2011; Pangrazio & Selwyn, 2017; Selwyn & Facer, 2013, Wood, 2014; Zuboff, 2015). Without doubt, however, networked and open forms of information access and social learning have challenged and continue to challenge the role of higher education institutions as traditional providers of knowledge (Siemens, 2012; Stewart, 2013a; UNESCO, 2014). Multiple other challenges facing higher education include reductions in public funding, rising costs, increasing numbers of students, a new competitive landscape, and the imposition of market mechanisms and managerial control. Within this increasingly complex and difficult environment, higher education policy makers,
managers, educators, and students seek to fulfil their, sometimes-contradictory, goals with respect to teaching and learning.

Open education initiatives – including OA, MOOCs, OER, and OEP – aim to utilise the affordances of digital, networked technologies to improve educational access, effectiveness, and equality (Blessinger & Bliss, 2016a; Lane, 2009, 2016; Open Education Consortium, n.d.). Moves towards open education within higher education are often met with resistance or apathy, however, due to lack of awareness or understanding, lack of the requisite skills and tools, lack of time, lack of trust, and/or incompatibility between existing institutional cultures and the philosophy of open education (Andrade et al. 2011; Jenkins et al. 2015; Stewart, 2015a; Weller, 2014; Wiley & Hilton III, 2009).

Chapter 4 described the research design and methodology. The research site was the National University of Ireland, Galway (NUIG), a medium-sized, research-focused, campus-based university. At the time of the study, the university did not have specific open education policies, thus enabling a situated study of open educational practices in an institution that does not actively advocate for openness (see also Veletsianos, 2015a). The empirical study was qualitative, interpretive, and critical. Data was gathered from academic staff across a broad range of discipline areas. Constructivist grounded theory was used as the research methodology in order to focus on participants’ meaning-making and decision-making with respect to openness. A complex picture emerged of a broad range of educators: some open (in one or more ways), some not; some moving towards openness (in one or more ways), some not; but all thinking deeply about their digital and pedagogical decisions and practices.

Chapters 5 and 6 presented the research findings, which were further discussed in Chapter 7. Academic staff used a wide variety of digital practices and tools; these were mapped across a continuum of ‘less open’ to ‘more open’. Using constructivist grounded theory, a model of the concept ‘Using OEP for teaching’ was constructed (see Figure 7.1, page 155) showing the foundational digital practices of open educators; open educators’ use of digital tools and open content; and the values and motives associated with decisions about whether to use OEP. The foundational digital practices of open educators included having open, networked, ‘Resident’ identities and practices (White & Le Cornu, 2011, 2017; Lanclos & White, 2015), i.e. sharing and networking openly, leaving “myriad traces of their social and scholarly engagement on the web” (Stewart, 2016b, p. 68). In terms of use of digital tools and open content, there was

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38 The National University of Ireland, Galway had no policies or guidelines related to open education at the time at which Phase I interviews with academic staff were conducted. The university has since implemented an Open Access policy (November 2015). There is, at the time of writing, no policy regarding OER or OEP (November 2017).
little intentional use of OER among academic staff participants and relatively low use of OEP for teaching. Many more academic staff used open digital identities and open tools for research than for teaching. Among the participants who used OEP for teaching, two different forms of OEP emerged: ‘being open’ (i.e. being visible online, interacting with students, and openly sharing resources) and ‘teaching openly’ (i.e. creating specific learning activities in open online spaces beyond the VLE). All eight participants using OEP described being open with students; three of these also taught openly. Teaching openly took the form of creating and using open module websites, creating and interacting in public Facebook pages where students shared their work with the public, and using Twitter to engage with students and others on module-related topics. The relatively ‘light touch’ of simply ‘being open’ resulted in minimal engagement from students, while teaching openly, i.e. using open teaching or open pedagogy, engaged students to a greater degree.

Based on detailed, narrative interviews with academic staff participants, four different values and motives appeared to be shared by open educators: (i) balancing privacy and openness, (ii) developing digital literacies, (iii) valuing social learning, and (iv) challenging traditional teaching role expectations. This is a key finding of the study, and one which has already been explored further by other researchers (e.g. Pitt et al., 2017; Walji & Hodgkinson-Williams, 2017). In addition to values and motives shared by open educators, I found that educators across the openness continuum also experienced a number of tensions with respect to openness. These included feeling overwhelmed (by heavy workloads, multiple demands on their attention, and myriad choices of digital tools); experiencing value conflicts (where personal teaching philosophy conflicted with current teaching style); continually negotiating boundaries with peers and students with respect to open practices; and feeling worried about how to use OEP (including worries about doing things ‘wrong’).

The findings are specific to the research site. However, I interpreted the findings of the study in relation to a wide range of research in the fields of open education and higher education. The forms of OEP that emerged in this study are in line with expansive conceptualisations of OEP rather than OER-focused definitions, i.e. they are highly context-dependent and all forms of OEP do not appear together (Beetham et al., 2012; Czerniewicz, Deacon, Glover, et al., 2017; Hodgkinson-Williams, 2014). In this study, use of OER was very low, yet OEP were clearly in evidence. Overall, the use of OEP for teaching in this study was found to be complex, personal, contextual, and continually negotiated.
8.2 Quality and limitations of the study

Quality and trustworthiness of research are often assessed by measures such as reliability, validity, and objectivity. For grounded theory research, however, the overall assessment is the extent to which the theory ‘fits’ the data and the substantive area of research (Glaser, 1998). As explored in Section 4.5 (page 74), relevant criteria for evaluating grounded theory research include credibility, originality, resonance, and usefulness (Charmaz, 2014). Charmaz (2014) notes: “A strong combination of originality and credibility increases resonance, usefulness, and the subsequent value of the contribution” (p. 338).

In terms of credibility, I firstly achieved an “intimate familiarity” (Charmaz, 2014, p. 337) with the research context, the topic, and the data. Based on the range and depth of the data, I believe that they are sufficient to merit the claims I have made. There are strong logical links between the data and my argument and analysis, as evidenced in the use of participant quotes and survey responses in the presentation of findings (Chapters 5 and 6). As for originality of the research, the categories in the grounded theory model offer new insights into the interrelationships between individuals’ use of open practices and their personal and professional values and motives. The grounded theory extends current ideas in the area of OEP and represents a contribution to the field.

Evidence for the resonance of the research is represented in the responses from participants. Over the course of 28 months since I began working with participants, I have shared transcripts, initial findings, and emergent models, inviting comments, feedback, and engagement. Based on a range of communications with participants, the research findings appear to be authentic and credible to them, and also to offer deeper insights into their practice and to broader trends in higher and open education. Finally, with respect to usefulness, I must assess the extent to which my interpretations can be used by others. Based on the use of my models by other researchers, and my own experience using the models in workshops with academic staff and students, I believe the work has already been useful, and hopefully will continue to be so. The research contributes to knowledge and practice (see Section 8.3), but also, hopefully, will spark further research and contribute to policy (see Section 8.4). In summary, I believe the grounded theory fits the data and the substantive area of research.

Limitations

The research findings also have several limitations. Firstly, the grounded theory was developed based on interviews with 19 members of academic staff, supplemented by a survey of 132 members of staff, at one university in Ireland, i.e. in a specific institutional, national, and temporal context. While this approach has enabled deep
contextual exploration and analysis, the applicability of these results beyond the immediate context is not known. The findings may be relevant to other Irish universities, as there are broad similarities across the sector, and perhaps to universities in other locations – but this can only be determined by situated research studies in those specific contexts.

Secondly, the nature of my student data does not allow me to draw strong conclusions regarding student perspectives on OEP. The original research design included gathering qualitative data from students enrolled in modules in which they were invited to engage in OEP by their lecturers. This meant, however, that I was dependent on academic staff to act as intermediaries. Unfortunately, I was not able to conduct focus group sessions as originally planned, thus the student findings in the study rely on survey responses only. These responses, while not as rich as they could be, indicate gaps between students’ actual practices, motives, and concerns, and academic staff assumptions concerning these – assumptions upon which at least some pedagogical choices regarding OEP are based. These findings are included in the study for several reasons: to respect the time and participation of students who engaged with study, to strengthen the case for including student voices in OEP practices and policies, and to reinforce this as an area for further research.

Finally, the nature of qualitative research means that varied, complex and sometimes contradictory data is analysed and interpreted through the lenses of both the participants and the researcher. Indeed, in constructivist grounded theory, data and analysis are seen as social constructions (Charmaz, 2014; Hallberg, 2006). Participants in this study rarely described their practices and decisions in binary terms as either open or closed. Rather, rich descriptions of a range of practices, values, motives, reflections, and assumptions were shared. I analysed these in order to identify processes, actions, meanings, and themes, and shared my emerging findings with participants to include them in this process of interpretation. Thus, the categories in the grounded theory ‘Using OEP for Teaching’ (Figure 7.1, page 155) should be understood to have blurry rather than rigid boundaries. The grounded theory model represents a deeply considered, if necessarily incomplete, description of academic staff meaning-making and decision-making regarding openness, with an invitation for others to use, adapt, and/or reinterpret the theory.

8.3 Research contribution

My work fits into open education scholarship by adding to a small but growing body of empirical research findings showing that the use of OEP is situated and contextual, and that OER are not necessarily the precursor to other forms of OEP, but may follow them (Beetham et al., 2012; Czerniewicz, Deacon, Glover, et al., 2017; Hodgkinson-
Williams, 2014) – what I have called *expansive* conceptualisations of OEP. My work also adds to critical open education scholarship in its use of interpretivist methods to explore participant meanings and concerns with respect to openness, its intentional inclusion of all categories of staff (and inclusion of students), and its rejection of the assumption that ‘open’ is necessarily good for all. This section describes the specific contributions of the study in terms of knowledge, practice, and policy.

**Contribution to knowledge**

A peer-reviewed journal article has been published on the basis of research findings from the first phase of the study (see Appendix I):


Since its publication, this paper has been cited in four conference papers (Arinto, Hodgkinson-Williams, King, & Cartmill, 2017; Havemann, 2017; MacNeill, 2017; Witthaus, 2017), three peer-reviewed journal papers (Kukharenko, 2017; Olsson, 2017), and three book chapters (Czerniewicz, Deacon, Walji, & Glover, 2017; Hodgkinson-Williams & Arinto, 2017; Walji & Hodgkinson-Williams, 2017). It was listed as one of five influential publications in the area of open practices in a report from the Global OER Graduate Network (Jordan & Weller, 2017, p. 20). I also have shared emerging findings of the research study at several conferences39 (see Appendix X).

The research presented in this thesis has made an original contribution to knowledge in several ways. Firstly, the *four dimensions shared by open educators* (Figure 7.2, page 157) is a key finding of the research study. This was published in the IRRODL paper (Cronin, 2017a) and, as noted above, has been cited in work by other open education researchers. Of particular note, researchers for the Opening Educational Practices in Scotland (OEPS) project (Pitt et al., 2017) used the ‘four dimensions’ model as an analytical framework in their analysis of empirical data gathered from multiple OEPS projects (see Figure 8.1).

39 All conference presentations: https://www.slideshare.net/ccronin/presentations (CC BY-SA)
Secondly, my summary of historical and theoretical conceptualisations of OEP (Section 3.5, page 43) also has been published in a peer-reviewed publication (see Appendix II):


This work provides an overview and critical analysis of previously published work in the area of open educational practices. I have presented, blogged (Cronin, 2017b), and engaged broadly in discussion of this work.

Thirdly, the negotiating openness model (Macro-Meso-Micro-Nano, Figure 7.3, page 162) was developed in the course of analysing how academic staff decide whether, how, and to what extent to engage in open educational practices. I have shared this model widely and it was published in the IRRODL paper (Cronin, 2017a).

Finally, the constructivist grounded theory model ‘Using OEP for Teaching’ (Figure 7.1, page 155) is a synthesis of all findings of the research study, including the models noted above. It is published here in the thesis for the first time, and hopefully will provide a tool for other researchers exploring the use of OER and OEP.

**Contribution to practice**

As shown in Figure 1.1 (page 6), this research study was embedded in my ongoing practice as an open educator and researcher. The nature of open practice is to share (and openly publish) emerging ideas, findings, models, and conclusions as they develop. I engaged in discussion of my work with fellow open education researchers and critical friends within my Personal Learning Network, mainly via Twitter (http://twitter.com/catherinecronin) and my blog (http://catherinecronin.net).
Global OER Graduate Network of open education researchers (GO-GN\textsuperscript{40}), organised by the OER Hub at The Open University, has been a vital and valuable part of this network. Thus, while I can identify formal conference presentations and two peer-reviewed journal articles in which I have shared my research, many conversations occurred and much valuable feedback was obtained through blog comments, Twitter conversations, and other online discussions. For example, in an April 2016 blog post titled ‘Initial thoughts... Exploring OEP in higher education’\textsuperscript{41}, I shared an early version of my finding of four dimensions shared by open educators. Among several blog comments, one fellow open education researcher, Louise Drumm, noted similarities with her research findings, prompting further reflection and analysis regarding the digital natives discourse emerging in my data:

The ‘digital natives’ discourse is prevalent in my data too and I find it fascinating. Somehow the concept has really taken root with some lecturers and they are seeing ‘evidence’ for it in the classroom and in student feedback. I suspect the concepts of digital literacies and digital comfort (e.g. frequent communications via smartphone apps, etc.) are being conflated. (L. Drumm, blog comment\textsuperscript{42}, April 15, 2016)

I also developed an early version of the framework for my OEP literature review in a post written after the Open Education Global Conference in March 2017, ‘OEP and open pedagogy’ (Cronin, 2017b). In that post, I combined my learning from the conference, previously published literature, and my own research data. After publishing this post, I engaged in conversations with and received feedback from many other researchers in the areas of OER, OEP, and open pedagogy – including several people cited in the post (David Wiley, Laura Czerniewicz, Cheryl Hodgkinson-Williams, and more).

Apart from sharing and discussing my research through writing, presenting, and blogging, I have used emerging findings from the research study (particularly the ‘negotiating openness’ model) in my work supporting students and academic staff. At NUI Galway, this has included Digital Champions\textsuperscript{43} and other workshops for students, as well as contributions to a professional development module\textsuperscript{44} for academic staff exploring areas such as open education and digital identity. Beyond NUI Galway, I have been invited to contribute to professional development webinars internationally (see Appendix X).

\textsuperscript{40} GO-GN: http://go-gn.net/
\textsuperscript{41} http://catherinecronin.net/reflecting/2821/
\textsuperscript{42} http://catherinecronin.net/reflecting/2821/#comment-457
\textsuperscript{43} Social media, digital identity and me. Workshop, Digital Champions, National University of Ireland, Galway (February 18, 2016). https://www.slideshare.net/cicronin/social-media-digital-identity-me
\textsuperscript{44} CEL263 Learning Technologies (professional development module, NUI Galway) https://www.nuigalway.ie/media/celt/files/courses/PgDip---CEL263---LearningTechnologies.pdf
Finally, I note that interviews with academic staff in this study constituted their own contribution to practice. In several cases, topics that arose during interviews were followed up in email conversations with participants. I shared information regarding specific digital tools (e.g. SlideShare and Twitter) as well as links to academic papers and blog posts on topics we had discussed, e.g. open education, the flipped classroom, the use of social media with students, and connection/disconnection. In the two follow-up interviews I conducted in Phase II, it was evident that the earlier interviews had prompted reflection and changes in practices, e.g. use of a module Twitter account and discussions with students regarding digital identity.

**Contribution to policy**

While I have suggested clear contributions of the study to knowledge and practice, and provided evidence to support this, the contribution to policy is yet to be determined. One of the aims of the study was for the findings to contribute to open education policy-making. Specific recommendations with respect to policy and future research follow.

### 8.4 Recommendations

The potential benefits of open education are numerous and multi-layered. For individual academics, potential benefits include opportunities to share and showcase their work, new forms of dialogue and global collaboration, and support in the form of Personal Learning Networks. For students, potential benefits include greater access to educational resources, increased flexibility, development of digital literacies and skills, new forms of dialogue and collaboration, and engagement with academic, professional, and wider communities. And for educational institutions themselves, the potential benefits of open education include public outreach and engagement, promotion to prospective students, extending the reach of the institution, greater opportunities for collaboration, and increased ability to respond to new demands and opportunities. Cognisant of both the potential benefits and the risks of openness, as explored throughout this thesis, I put forward the following recommendations for research and policy.

**Further research**

As a situated study in one higher education institution, I would be interested to learn whether and to what extent the findings of this study are relevant in other contexts. Research by Pitt et al. (2017), noted previously, appears to show that the ‘four dimensions shared by open educators’ may be applicable in other contexts, specifically in terms of analysing engagement with OEP. I look forward to further explorations of the model in other contexts.
During interviews in this study, open educators referred to the flexible and dynamic nature of their use of OEP. The two follow-up interviews in Phase II bore this out; both open educators described considerable changes in their use of OEP over the course of one year, due to structural factors and to reflection on their previous experiences and student feedback. It would be useful to return to the original participants in this study for further interviews, in order to study their use of OEP, how these continue to change over time, and how their use of open educational practices could be supported more effectively. In addition, the staff survey could be revised, based on the overall findings, and extended to gather a larger set of data on OEP and related attitudes and conditions. The survey could be conducted within one institution, but also shared with others – as an OER itself – and perhaps used also to gather baseline data across the higher education sector.

In preparing the student survey and analysing these results, I relied mostly on studies from other countries (Australia, Canada, South Africa, UK, US) regarding students’ use of digital devices, social and participatory media, and PLEs. In Ireland, national longitudinal student data exists regarding VLE use (Risquez et al., 2013). Within the past year, researchers connected with the All Aboard project conducted a survey of students’ digital practices at NUI Galway. It would be useful to conduct a national survey of third-level students in Ireland to gather broader data on digital practices and engagement which could be used to inform research and practice.

Finally, the growing body of literature on critical approaches to openness suggests multiple avenues for further research in specific institutional contexts. For example: To what extent, by whom, and in what ways do specific open education initiatives such as OA, OER, OEP, and MOOCs increase access, enable inclusivity, enable engagement with learning in multiple ways, enhance learning, develop digital capacity, and empower local communities? These and other questions are vitally important as we move further down the road of open education. We can only choose certain paths – it is important that we make wise and informed choices.

Policy recommendations

The European report *Opening up Education: A Support Framework for Higher Education Institutions* (Inamorato dos Santos et al., 2016) makes a strong case for the strategic “opening up of education by higher education institutions” (p. 6) in order to address issues of vital local, national, and international importance such as enhanced workforce skills, access to job opportunities, community engagement, and personal

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45 See fuller description of the *Opening up Education* report in Section 3.2.2 and Figure 3.2 (page 36).
growth of citizens. Open education is not only a tool for social change, however, but also of transforming higher education itself (van der Vaart, 2013):

Open Education... nourishes a participatory culture of learning, creating, sharing and cooperation and it is therefore a vital and natural training ground for current and future researchers and educators, turning them into confident users and designers of open approaches in research and higher education. (p. 52)

The challenge for institutions is to engage with open education strategically, while also catering for an already broad range of institutional needs. Culture change is required. While higher education policy makers cannot effect such change, they can support, facilitate, and incentivise actions that encourage change in academic practices and culture (Corrall & Pinfield, 2014). Evidence indicates that institutional open education policies can act as enablers for OER creation and use (Corrall & Pinfield, 2014; Cox & Trotter, 2016; Lesko, 2013; Udas, Partridge, & Stagg, 2016). With these considerations in mind, my recommendations regarding institutional open education policy include:

- **Build on existing policy** with a view to developing an integrated open education policy that encompasses open access, open educational resources, and open educational practices. In the case of NUI Galway, for example, the Open Access Policy has been in place for two years (National University of Ireland, Galway, 2015b). This policy could be extended to include OER and OEP.
- **Expand open repositories** to accommodate both research and teaching materials.
- **Raise awareness** for all staff regarding open education goals, policies, and resources available, e.g. use, adaptation, creation, and sharing of OER, use, adaptation, creation, and sharing of open textbooks.
- **Provide training** for staff who wish to engage in open practices, e.g. OER and open textbook workshops, including legal support regarding copyright and open licensing – ideally coordinating resources and activities across disciplines/departments, libraries, and centres for learning and teaching.
- **Encourage and reward** open academic practice. At a minimum, engagement in open access publishing, open research, OER and/or OEP should be included in criteria for staff evaluations and assessments, and count towards promotion (see Anderson, 2009; Andrade et al., 2011; Corrall & Pinfield, 2014; Geser, 2007; Udas, Partridge, & Stagg, 2016; van der Vaart, 2013; Weller, 2014).
- **Draw on European and Irish open education policy frameworks** (identified in Section 3.2.2) and **benchmark** against exemplar open education policies at other higher education institutions, e.g. Open Educational Resources Policy (University of Edinburgh, 2016), Open Access Policy (University of Cape Town, 2014), Intellectual Property Policy (University of Cape Town, 2011).
These points constitute a baseline for open education policymaking for higher education institutions. A similar list of recommendations could likely have been compiled early in the course of this research project, based on extant open education research dating back over the past decade (e.g. Andrade et al., 2011; Geser, 2007b; Inamorato dos Santos et al., 2016; National Forum for the Enhancement of Teaching & Learning in Higher Education, 2015a; van der Vaart, 2013). Additional recommendations, listed below, arise specifically from the findings of this study. While openness is a strategic objective at the institutional level, it cannot be mandated at the individual level. Individual members of staff and individual students must be supported and enabled to engage in open practice, but more importantly, supported in making their own decisions about whether and how to engage in open practice. Some students, based on personal experiences or circumstances, or their marginalised position within society, their community, or even their class, may not be willing to engage in OEP. Some members of staff, based on their personal experiences or circumstances, or their personal or professional values, may not be willing to engage in OEP. The benefits and risks of open practices are continually evolving and are always mediated by individuals in specific contexts. Ideally, higher education institutions will engage in positive but sensitive approaches to all open practices. Based on these considerations, I add the following recommendations with respect to open education policy:

- **Provide ongoing support to all academic staff** in (a) developing their digital literacies and digital identities, and (b) reflecting on their personal and professional values with respect to privacy, openness, learning, and teaching in an increasingly open, networked, and participatory culture. Many openly available tools and resources exist to support this work, including Visitor/Resident mapping (Flynn, 2016; White, Connaway, Lanclos, Hood, & Vass, 2014; White & Le Cornu, 2017), digital literacies resources (Alexander et al., 2017; C. Brown, Czerniewicz, Huang, et al., 2016; Jisc, 2014, 2016), digital citizenship resources (Caines, 2017; Emejulu & McGregor, 2016), and the ‘negotiating openness’ model developed in the course of this research study.

- **Open educational practices can be powerful means of enhancing learning and empowering students.** While not all academic staff must be open, all should be equipped to advise and support students in developing critical networked literacies and practices (relevant to their discipline/profession) in the context of their own teaching and/or with the support of other experts across the institution, e.g. librarians, education developers, and learning technologists. The goal is to support students in becoming reflective disciplinary and digital practitioners.

- **Promote a learning design approach.** Academic staff in this study described the module and course design process as a largely individual activity. Academic
staff described their efforts, for example, to ‘customise’ traditional teaching and assessment models. This approach is in contrast to a systematic, learning design approach, informed by research in teaching and learning, which focuses on student development rather than ‘covering the content’ (this varies, of course, across disciplines). There seems to be considerable scope for promoting a learning design approach within which OEP could be considered and embedded.

- Engage in collaborative policymaking regarding open education. Open education policies should be flexible and democratically formulated, with the input of academic, administrative, and technical staff, and students. In addition, those engaged in policymaking should consider how open practices could be used and modelled during all stages of considering, evaluating, and formulating open education policy.

8.5 Final reflections

The title of this thesis is ‘Openness and praxis’, based on Freire’s (1996) conception of praxis as “reflection and action directed at the structures to be transformed” (p. 126). This thesis is based on my consideration and analysis of rich descriptions of reflective practice shared by a diverse range of academic staff. The thesis was enriched by the inclusion of students’ voices also, limited in number but nonetheless important. One of my own reflections, recorded over two years ago, has continued to resonate as data gathering, analysis, and my writing have continued, and even as this project draws to a close:

What is overwhelming in my research so far is the diversity of choices driven by similar motivation. Nearly every [academic staff] participant describes being motivated by trying to be the best teacher they can be, e.g. helping students with learning, navigating sources, reading critically, critical thinking, expressing themselves – in speaking and in writing. Yet, each participant makes different choices re: their use of open practices. (Memo, 20 August 2015)

Open educators’ use of OEP is complex, personal, contextual, and continually negotiated – but so also is the consideration of open practices by all academic staff. The suggestions I have offered in this chapter indicate possible ways that this research could be used, alongside other initiatives, to contribute to efforts within higher education to support students, staff, our wider communities, and learning in a time of rapid change on many fronts.

I began this research in September 2013; I write these final reflections in December 2017. The landscapes of open education, higher education, and our broader culture have changed considerably during this period. We live in a post-Brexit, post-Trump world. The benign promises of social media to “connect the world” (Hempel, 2016)
may have been cracking in 2013-2014, but seem increasingly under threat in 2017 (Tufekci, 2017). It is abundantly clear that in our increasingly open, networked, participatory culture of surveillance, distraction, and ‘fake news’, all citizens require critical digital literacies, network literacies, and data literacies. Equally clear, if we are engaged in education, is that education institutions cannot shirk their responsibilities to undertake this work, and to engage in and support open, networked education. Democratic, flexible, strategic, and critical approaches to open education are required.
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APPENDICES
APPENDIX I.
Publication (based on PhD research study, Phase I)

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Openness and Praxis: Exploring the Use of Open Educational Practices in Higher Education

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Abstract

Open educational practices (OEP) is a broad descriptor of practices that include the creation, use, and reuse of open educational resources (OER) as well as open pedagogies and open sharing of teaching practices. As compared with OER, there has been little empirical research on individual educators' use of OEP for teaching in higher education. This research study addresses that gap, exploring the digital and pedagogical strategies of a diverse group of university educators, focusing on whether, why, and how they use OEP for teaching. The study was conducted at one Irish university; semi-structured interviews were carried out with educators across multiple disciplines. Only a minority of educators used OEP. Using constructedivist grounded theory, a model of the concept "Using OEP for teaching" was constructed showing four dimensions shared by open educators: balancing privacy and openness, developing digital literacies, valuing social learning, and challenging traditional teaching role expectations. The use of OEP by educators is complex, personal, and contextual; it is also continually negotiated. These findings suggest that research-informed policies and collaborative and critical approaches to openness are required to support staff, students, and learning in an increasingly complex higher education environment.

Keywords: open educational practices, open educational resources, open education, higher education, OEP

Introduction

Openness in education attracts considerable attention and debate. Much recent research has focused on MOOCs, open educational resources (OER), social media in education, and concomitant issues related to data, privacy, ethics, and equity (Moe, 2013; National Forum, 2015; Stewart, 2015; Weller, 2014; Wiley, Biwer, & McEwen, 2014). The potential benefits and limits of open education are widely reported in the literature and explored briefly in this paper. However, there is a lack of empirical data about the use of open educational practices (OEP), particularly in institutions without open education policies. OEP is a broad descriptor that includes the creation, use and reuse of OER, open pedagogies, and open sharing of teaching practices. Veletsianos (2010) notes that educators can shape and be shaped by openness. It is this individual making and praxis that I explore in this study.

The qualitative, empirical study explores meaning-making and decision-making by university educators regarding whether, why and how they use open educational practices. It is a study not only of open educators, but also of a broad cross-section of academic staff at one university. The purpose is to understand how university educators conceive of, make sense of, and make use of OEP in their teaching, and to try to learn more about, and from, the practices and values of educators from across a broad continuum of "closed" to open practices.

The paper begins with a review of the literature, exploring interpretations of openness in education. I pay particular attention to the various definitions of open educational practices (OEP) and provide a theoretical framework for exploration of them. Following this, I describe the results of an empirical study of a diverse cross-section of academic staff across multiple disciplines, focusing on whether, why and how they use OEP. The paper ends with general conclusions of the study as well as implications for higher education practitioners, researchers, managers and policy makers.

Openness in Education

Education is about sharing knowledge; thus, openness is inherent in education. But what exactly is "open education?" According to the Open Education Consortium (n.d.), "open education encompasses resources, tools and practices that employ a framework of open sharing to improve educational access..."
Interpretations of Openness in Education

Four broad interpretations of openness within the context of higher education can be identified across the literature. Following is a brief summary of these four interpretations: open admission, open as free, open educational resources (OER), and open educational practices (OEP). This is followed by a deeper exploration of OEP, the focus of this study.

Open admission. One interpretation of openness is open admission to formal education. The qualifier “open” refers to open-door academic policies, that is, elimination of entry requirements for institutional-based learning, as in “open university.” No prior educational attainment is required for entry to open universities, although course fees generally apply. Open universities often make educational resources available to the public for free (an example of the second interpretation of open education, described below), historically via television, radio, and more recently the internet.

Open as free. A second interpretation of openness describes educational resources that are available for free, i.e., at no cost to the user. This love of openness is an extension of the idea of public libraries and the internet as a free and open resource for all. Under this interpretation a vast array of online resources and courses would be considered open, for example, YouTube videos, TED Talks, Khan Academy screencasts, MOOCs, etc. (Woo, 2013). These educational resources are freely available online to anyone interested in and, not insignificantly, able to access them. In many cases (e.g., most MOOC providers) users are required to register, providing personal information such as a name and email address. In such cases, while resources are technically free, they have an opportunity cost to the user in the form of personal data and usage data (Hodgkinson-Williams & Grey, 2009). In addition, the use of free online resources is subject to copyright restrictions unless the creators provide explicit permission. One of the original works. Many open education advocates and researchers have started to consider “open as free” to be a limited interpretation of openness (Wiley, 2000; Winn, 2012), leading to a third interpretation: open educational resources or OER.

Open educational resources (OER). According to the Open Education Consortium (n.d.), open educational resources “do not imply a matter of access but ‘the ability to modify and use’ (para. 6).” This change in the conception of openness is often described as the difference between open as gratis (free of cost) and open as libre (enabling legal reuse) (Winn, 2012). The term “open educational resources” or OER, first coined in 2002, defines resources that expressly enable reuse through the use of open licensing or release into the public domain (Wiley et al., 2014). Open learning, typically via a Creative Commons license, means that resources can be altered, reused and/or repurposed to suit requirements within specific contexts, depending on the exact terms of the license. These usage rights are defined as the “4 Rs of Openness.” Retain, Reuse, Revise, Remix, and Redistribute (Wiley et al., 2014). Thus, while openness in OER is focused on freedom, the degrees of freedom available within a particular license can vary (Lane, 2009). Multiple studies have shown a low but increasing level of awareness and acceptance of OER among academic staff in higher education (Allen & Seaman, 2016; National Forum, 2015; Reed, 2013; Rolfe, 2012). Overall, the focus of OER is on educational content, leading to a fourth interpretation of openness: open educational practices or OEP.

Open educational practices (OEP). Open education practitioners and researchers describe OEP as moving beyond a content-centric approach, shifting the focus from resources to practices, with learners and teachers sharing the processes of knowledge creation (Beetham, Hacker, & Cronin, 2012; Dismann & Sloep, 2013; Ebers, 2011; Geor, 2007; Lana & McAndrew, 2010). A widely used definition of OEP, arising from the ONAW project (2011), is provided by Elhers (2012): “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 paths (p. 4).” Research studies deal with this broad definition of OEP in various ways. Some focus primarily on the OER aspects of OEP (Armelin & Nis, 2013; Arias, Herrington, & Kinshuk, 2014; Hogan, Carlson, & Kirk, 2015; Karunaratne, Naidu, Rajendra, & Ratnayake, 2015; Murphy, 2013; Schreurs et al., 2014); others explore broader aspects of OEP such as open pedagogies and learning in open networks (Casey & Svatko, 2011; Nasimbeni & Burgos, 2016; Veletsianos & Kimmons, 2011; Wraycott, Smith, Thompson, & Ceregho, 2013) and power relations and inequality (Czerniewicz, Deacon, Glover, & Walf, 2017; Rowe, Bolch, & Pransky, 2013; Stryn, Bonsu, & Slagg, 2013). The scope of OEP continues to evolve rapidly. Education researchers across many domains have described and theorized some or all of the practices defined as open educational practices using a variety of definitions and theoretical frameworks. These include open scholarship (Veletsianos & Kimmons, 2012b); open learning (Weller, 2011, networked participatory scholarship (Veletsianos & Kimmons, 2012a); open teaching (Cousin & Midlbrandt, 2016); open pedagogy (Dalekosa & Robson, 2012); open pedagogy (Kimmons & Sinemose, 2015); open education (Weller, 2011); and, critical digital pedagogy (Stommel, 2014). All are emergent scholarly practices that expand a combination of open resources, open teaching, sharing, and networking participation. I have drawn from research in all these areas to inform my work. I use the following definition of OEP in this study: collaborative practices that include the creation, use, and reuse of OER, as well as pedagogical practices employing participatory technologies and social networks for interaction, peer-learning, knowledge creation, and empowerment of learners.

Theoretical Framework
Appendix I.

This study draws on both sociocultural and social realist theories. From a sociocultural perspective, human activities are viewed as social practices situated within particular social, cultural, and historical settings (Lewis, Enrico & Maje, 2007). Openness is a sociocultural phenomenon, as higher education institutions are situated in and reflect their specific contexts and cultures (Siemens & Matheos, 2010). A sociocultural framework is used by Veletsianos (2010, 2015) and Veletsianos and Kimmons (2012a, 2012b) to explore agency and context in their work on the practices and complexities of open, networked, participatory scholarship. In this study, I explore individual agency as well as the relationship between agency and structure. Building on the work of other open education researchers (see Cox, 2014; Cox & Trotter, 2014; Hodgkinson-Williams & Gray, 2009), I have found Archer’s (2003) social realist theory to be a useful framework. Archer’s work identifies three interdependent strata of reality: structure (e.g., institutional systems, policies), culture (e.g., norms, ideas, beliefs), and agency (individual freedom to act). According to Archer’s (2003) “marxist-henrician cycle,” the interrelations between structure, culture, and agency occur over time. The powers of structure and culture exist but are only activated when human agents seek to act. Human reflexivity is the mechanism that mediates between structure and agency, moving from confronting constraints to elaborating a course of action (Archer, 2003).

Study and Method

The goal of this study is to understand why, how, and to what extent academic staff use, or do not use, open educational practices. The scope of the study is the use of OEP for teaching: it does not include other aspects of OEP such as open research or open publishing. The study posed the following research questions:

- In what ways do academic staff use OEP?
- Why do individual and/or members of academic staff use OEP?
- What practices, values, and/or strategies are shared by academic staff who use OEP, if any?

The study used qualitative research methods, specifically constructivist grounded theory (Charmaz, 2014) to explore these questions. Grounded theory method, originally developed by Glaser and Strauss (1967), aims to build useful theory from empirical observations. "Ground" refers to the grounding of findings in rigorous qualitative inquiry and analysis. Underpinned by interpretivist epistemology, grounded theory is a systematic, inductive, and comparative approach for conducting inquiry (Charmaz, 2006). Key aspects include the constant comparative method (comparing data with data, data with codes, codes with categories, etc.) and the generation and emergence of theory from what is observable in the data (Charmaz, 2006, 2014; Glaser & Strauss, 1967; Mavetera & Trewern, 2005). The constructivist grounded theory, as pioneered by Charmaz (2006), reality is recognized as multiple and interpretive rather than singular and self-evident. Thus, “generalisations are partial, conditional and situated in time and space” (Charmaz, 2006, p. 141). Storytelling is key: the focus is on participants’ interpretations of their experiences. Overall, the goal of all grounded theory method is to generate concepts that explain the way people receive their central concern (Charmaz, 2014; Glaser & Strauss, 1967). For this study, the central concern relates to making sense of openness and the use of OEP for teaching. The constructivist grounded theory approach was used for sampling, interviewing, and analysis.

Context

The study took place at one higher education institution in Ireland: a medium-sized, research-focused, campus-based university offering both undergraduate and postgraduate degrees. Although an increasing number of courses are offered in online and blended learning formats, the majority of the university’s courses are offered on campus. The university uses a well-known Virtual Learning Environment (VLE, i.e., learning platform). In terms of institutional structure and culture with respect to openness, there were no policies or strategies related to open access publishing or OER at the time at which interviews were conducted for this study.

Participants

Participants were members of academic staff across a broad range of disciplines. Rather than exploring the practices of open educators only, I sought to explore the practices of educators along a continuum of “closed” to open practices. Open sampling was used initially to maximize diversity across three categories: gender, discipline area, and employment status. Firstly, an equal representation of female and male participants was invited to participate. Secondly, participants were invited from across two broad discipline areas using Biglan’s (1973) typology of disciplines: hard and soft, pure and applied (further developed by Becher & Trowler, 2001; Trowler, Saunders, & Bamber, 2003). Participants were invited equally from each group: Science, Technology, Engineering, and Mathematics (STEM) disciplines and Arts, Social Science, Business and Law disciplines. The breakdown of disciplines is shown in Table 1. Finally, for the purposes of the study I defined the term “academic staff” broadly as: individuals employed by the university with responsibility for teaching, regardless of whether they were employed full-time or part-time, on permanent, fixed-term, or no contracts.

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Group 1: STEM</th>
<th>Group 2: Arts, Social Science, Business &amp; Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>*Engineering</td>
<td>*Arts</td>
</tr>
<tr>
<td>Cargo</td>
<td>*Science</td>
<td>*Social Science</td>
</tr>
<tr>
<td>IT &amp; Computer Science</td>
<td>*IT &amp; Computer Science</td>
<td>*Business &amp; Public Policy</td>
</tr>
<tr>
<td>Mathematics</td>
<td>*Mathematics</td>
<td>*Law</td>
</tr>
<tr>
<td>Medicine &amp; Nursing</td>
<td>*Medicine &amp; Nursing</td>
<td></td>
</tr>
</tbody>
</table>

Table 1

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Appendix I.

Lator in the interviewing and analysis process, participants were selected using theoretical sampling, a process to grounded theory whereby data is jointly collected, coded and analyzed so the researcher can decide what data to search for and to collect next in order to saturate each emerging category/concept (Charmaz, 2014; Glaser &Strauss, 1967; Holberg, 2006). The total number of participants is not predetermined, it is determined by theoretical saturation of the emerging theory. A total of 19 academic staff participated in the study. The breakdown across the three categories is shown in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Gender</th>
<th>Discipline area</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>STEM (7)</td>
<td>Permanent &amp; full-time (15)</td>
</tr>
<tr>
<td>Male</td>
<td>Arts, Social Science, Business, Law (12)</td>
<td>Fixed-term and part-time (4)</td>
</tr>
</tbody>
</table>

Data Collection and Analysis

Using a semi-structured interview protocol I interviewed all participants, face-to-face, between August and December 2015. Each interview lasted approximately one hour and was audio-recorded and transcribed verbatim. In constructivist grounded theory, data and analysis are seen as social constructions reflecting both the participant and the researcher (Charmaz, 2014; Holberg, 2006). Data were analyzed in an iterative manner. Interview transcripts were initially hand coded using open, inductive coding methods. Using the constant comparative method (Glaser & Strauss, 1967), data analysis was undertaken concurrently with data gathering. Results of early interviews enabled refinement of interview questions for subsequent interviews. New codes were added as they emerged and previous transcripts were checked for these codes. I continued this process until I could not identify any new codes, categories or themes; that is, the point of data saturation was reached. NVivo 10 was used to facilitate data management and visualisation, the move from codes to categories, and the development of themes.

Rigor

Charmaz (2014) identifies four criteria for evaluating grounded theory studies: credibility, originality, relevance, and usefulness, with the two first increasing the value of the latter two. I reflected on and shared my own positionality with participants as an open educator/researcher, presently engaged in critical, qualitative, open education research. I also constructed the study so that participants could review stages of the research as it progressed. Each participant received their interview transcript as well as early stages of the concept model and analysis, and was invited to correct, clarify, or expand these. Three participants made minor changes or suggestions; fifteen returned specific affirming comments. All additions and changes suggested by participants were incorporated into the transcript records and analysis. These aspects of the study reflect a commitment to accountability and ethical research practice, but also contribute to the credibility the findings. Lether (1991) notes that returning to participants with initial findings, as well as systematic interaction between researcher and participants, lessen the possibility that researchers will impose meanings on situations and data instead of mutually constructing meanings with those they are studying.

Findings

Participants described a wide range of digital and pedagogical practices and values; a summary of these is shown in Table 3. It is impossible to draw a clear boundary between educators who do and do not use OEP. Instead there is a continuum of practices and values ranging from “closed” to open. A complex picture emerges of a broad range of educators: some open (in one or more ways), some not; some moving towards openness (in one or more ways), some not; but all thinking deeply about their digital and pedagogical decisions. The concurs with other research findings that configurations of openness are uneven and diverse on both organizational (Dhir, 2011) and individual (Raftery, 2015) levels. Overall, for the participants in this study, “using OEP” was primarily characterized by: having a well-developed open digital identity; using social media for personal and professional use, including teaching; using both a VLE and open tools; using and reusing OERs; valuing both privacy and openness, and accepting some porosity across personal-professional and staff-student boundaries.

Table 3

| Summary of Participants’ Digital and Pedagogical Practices and Values on a Continuum of Increasing Openness |

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Appendix I.

<table>
<thead>
<tr>
<th>Digital Networking Practices</th>
<th>Digital Teaching Practices</th>
<th>Personal Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not using OEP for teaching</strong></td>
<td><strong>Using OEP for teaching</strong></td>
<td><strong>Using OEP for teaching</strong></td>
</tr>
<tr>
<td>Main digital identity is university-based (e.g., university email)</td>
<td>Combined use of university &amp; open digital identities</td>
<td>Well-developed open digital identity (e.g., blogs, Twitter)</td>
</tr>
<tr>
<td>Not using social media at all, or using social media for personal use only</td>
<td>Using social media for personal or professional use, but not for teaching</td>
<td>Using social media for personal or professional use, including teaching</td>
</tr>
<tr>
<td>Using VLE only</td>
<td>Using VLE &amp; open tools</td>
<td>Using &amp; reusing OER</td>
</tr>
<tr>
<td>Using free resources; little concern re: copyright, rights or no knowledge of Creative Commons</td>
<td>Understanding boundaries: Personal-Professional &amp; Staff-Student</td>
<td>Accepting some permeability across boundaries: Personal-Professional &amp; Staff-Student</td>
</tr>
<tr>
<td>Working short boundaries: Personal-Professional &amp; Staff-Student</td>
<td>Caution about crossing boundaries: Personal-Professional &amp; Staff-Student</td>
<td>Valuing both privacy &amp; openness; seeking balance</td>
</tr>
<tr>
<td>Strong attachment to personal privacy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Using OEP**

Fewer than half of the educators participating in the study (8 of 19) used OEP, based on participants’ own descriptions, two distinct forms of “using OEP” could be discerned: (i) being open, and (ii) explicitly teaching openly. All 8 open educators in the study demonstrated the former; a small subset also demonstrated the latter. All participants using OEP described being open with students; that is, being visible online, interacting and sharing resources in open online spaces. Each has an open digital identity and shared at least one of their profiles with students. A small subset of participants who used OEP chose not only to be open with their students but also to teach openly; that is, to create learning and/or assessment activities in open online spaces beyond the VLE. Teaching openly took different forms; for example, inviting students to engage in discussion via Twitter, creating courses in WordPress blogs, and encouraging students to share their work openly.

Participants across the spectrum of “closed” to open practices cited both pedagogical and practical concerns regarding the use of OEP. These included lack of certainty about the pedagogical value of OEP, concerns about students’ possible over-use of social media, reluctance to add to their already overwhelming academic workloads, concerns about excessive noise in already busy social media streams, and concerns about context collapse (Merrifield & Boyd, 2010), both for themselves and for students. While many participants who were open educators acknowledged potential risks to using OEP, they considered the benefits to outweigh the risks. Participants who used OEP described what they perceived to be the benefits for students; these included: feeling more connected to one another and to their educators; making connections between course theory/content and what’s happening in the field right now, sharing their work openly with authentic audiences, and becoming part of their future professional communities.

**Dimensions Shared by Open Educators**

After exploring the extent to which participants used open practices and their reasons for choosing OEP or not, the analysis turned towards the third research question. What dimensions (values, practices, strategies) were shared by participants who used OEP, if any? The study of a diverse group of participants proved immensely useful here. Comparisons could be made not only among educators who used open practices, but also between those who used open practices and those who did not. Four dimensions emerged of participants who used OEP: balancing privacy and openness, developing digital literacies, valuing social learning, and challenging traditional teaching role expectations. The first two dimensions appear to be interdependent, as do the latter two. The four dimensions (see Figure 1) were shared variously by many of the participants, however all four were evident in each of the participants who used OEP. These are described briefly below and the first dimension is explored in detail in the Discussion section.
Dimension #1. Balancing privacy and openness. Striving for a balance between privacy and openness emerged as the primary issue of concern for participants in this study. Although participants overall defined privacy in different ways, none said they did not value privacy. Strategies for managing privacy ranged from non-use of social media altogether to using particular digital practices in order to manage it (hence the link to Dimension #2). Those who used OEP described a variety of strategies for balancing privacy and openness, as networked individuals and networked teachers. Interaction in open online spaces tends to blur the boundary between different identities and roles. Participants described boundary-keeping activities in two domains, personal-professional and staff-student.

Most participants expressed a preference for maintaining a boundary between their personal and professional digital identities and activities. Many wanted to avoid mixing streams of conversations about work with other conversations about family, social activities, sports, politics, etc. This mixing of streams, defined by Meanwell and Boyd (2010) as context collapse, is described by Vitek (2012) as “the flattening out of multiple distinct audiences in one’s social network, such that people from different contexts become part of a singular group of message recipients (p. 451).” Some participants accepted a degree of context collapse or partiality across the personal-professional boundary; for example, work colleagues becoming friends online as well as offline. However, an ongoing challenge for many was managing interactions along this boundary; that is, the liminal space between the personal and the professional. Overall, participants described various ways of managing a personal-professional boundary, including using privacy settings, maintaining different Facebook profiles (professional and personal), and using different tools for different purposes (typically Facebook for private/personal, Twitter for public/professional).

While many participants spoke of the importance of communicating with and supporting students, most also described their desire to maintain some kind of staff-student boundary, both online and offline. Most participants felt it was “safest” to communicate online with students via the VLE and email only. Those using OEP tended to interact with students in open online spaces rather than personal online spaces. This was evident in the number of participants who said they do not “friend” students on Facebook. However, some created Facebook pages/groups or separate professional Facebook profiles to work around this. Twitter was seen as open and public and thus more acceptable by some as a tool for staff-student interaction.

Dimension #2. Developing digital literacies. Another dimension shared by many participants, including all who used OEP, was developing digital literacies, for self and students. JISC (2013) defines digital literacies as “capabilities which fit someone for living, learning and working in a digital society” (p. 3); for example, ICT proficiency; information, media and data literacy; digital creation, communication and collaboration; digital learning and personal/professional development; and digital health and wellbeing. Many participants said they would like to develop their digital literacies and/or “better” digital identities. Some felt unsure of how to do this, or how to do it well. Many said simply that they did not have enough time to develop their digital identities. This was often associated with feelings of guilt:

I should have much more. I should have my own web presence, a comprehensive presence. I just haven’t gotten around to it – like 101 other things on my list, you know? (participant 3, not using OEP)

Participants who used OEP had well-developed and open digital identities and tended to be proficient users of social media. In addition to building their own digital literacies to communicate, collaborate, learn, and teach, many also sought to develop the digital literacies of their students, exploring issues such as digital culture and privacy.

Dimension #3. Value social learning. A third dimension shared by all who used OEP and many other participants was valuing social learning. Theories of social learning such as social constructivism and sociocultural theory emphasize the importance of learners being actively involved in the learning process (Conole & Oliver, 2006; McLaughlin & Lee, 2010). Many academic staff value social learning, whether or not they explicitly identify their teaching philosophies as such. Most participants in this study described their efforts to move away from a didactic lecturing style and to encourage more student engagement. Not all participants who encouraged social learning used OEP in their teaching. Many sought to create social learning activities in their classrooms and some tried to do this within the VLE. Thus, while all participants who used OEP valued social learning, the reverse was not true.
Appendix I.

Dimension #4. Challenging traditional teaching role expectations. Finally, participants who used DEP described various ways that they challenged traditional teaching role expectations. Some spoke in terms of having a broader identity, seeing themselves as learners as well as teachers. One open educator spoke of trying to break down the traditional barrier between lecturer and student, another of using open practices explicitly as a way of expressing care for students. In these cases, challenging traditional teaching role expectations may be seen as a corollary to valuing social learning (Dimension #3), but this is not always the case. It also can be a way of working around structural barriers. Adjunct academic staff, for example, may not have reliable access to institutional email or the VLE. In such cases, alternative communication channels must be used. One participant described this vividly:

I don’t let students know I’m on Twitter, they seem to figure it out. It depends on what email account I reply to them with. Depending on the teaching or contractual situation in any given year, sometimes the university email account just evaporates and I have to fall back and use my own email account. My personal email signature has my Twitter name, my blog – the university account just has the department name. (Participant 8, using DEP)

These findings are explored in more detail in the following section.

Discussion

This study explored meaning-making and decision-making by university educators regarding whether, why and how they use open educational practices (OEP). A number of academics used OEP; the majority did not. Participants spoke about privacy and openness – their interpretations of these and the relationship between them – more than any other aspect of digital, networked practice. Across all participants, both using and not using OEP, there was recognition that balancing privacy and openness is an individual decision and an ongoing challenge. In the words of one participant: “you’re negotiating all the time.”

Analysis showed that participants sought to balance privacy and openness in their use of social and participatory technologies at four levels: macro (global level), meso (community/network level), micro (individual level), and nano (interaction level). Differentiating between these levels proved helpful in understanding decision-making around open practices (see Figure 2).

![Figure 2. Considering openness at four levels.](image)

At the macro level, individuals make decisions about whether or not to engage in open sharing and networking. Some opt out at this level, while those who engage in open practice must consider questions at three further levels. At the meso level, individuals consider whom they would like share with (e.g., family, friends, colleagues, students, community/interest groups, the wider public) as well as those whom they do not want to share with. At the meso level, individuals make decisions about their digital identities, i.e., who they will share with. At the meso level, individuals decide whether to interact/share something particular: for example, post, tweet, or retweet; use a specific tag or hashtag; like, follow, or friend.

Considering these four levels – macro, meso, micro, and nano – proved helpful in understanding the personal and complex negotiations involved in open educational practices. Formal and informal professional development initiatives often focus at the top or macro level; that is, describing the benefits of sharing, and supporting staff in learning how to use various tools. But the complex and ongoing work of open practice happens beneath this level; at the meso, micro, and nano levels, where issues around context collapse and digital identity are negotiated. A few examples from this study are included below, to illustrate.

At the macro level, educators who do not use open practices may have various reasons for choosing not to share openly. For example, three participants in this study recounted incidences of bullying and/or stalking experienced by members of their families, citing these as reasons for their strong attachment to personal privacy and limited/non-use of social media. Others described wanting simply to avoid the noise of open streams:

It’s not just a question of privacy. It’s a question of having a bit of time or space for myself. I need a tremendous amount of solitude... I need an awful lot of time to think. (Participant 10, not using DEP)

At the meso level, where individuals decide whom to share with, many participants recounted how they used Facebook. In some cases, decision-making was clear-cut:

I definitely don’t accept friend requests from people I don’t know... Facebook does have personal information, family photographs, things like that. You just don’t want to share with the world. (Participant 10, using DEP)

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In other cases participants described more nuanced decisions, influenced by the social norms in their discipline:

I’ve used privacy settings to block certain things that I post from professional colleagues on Facebook. But I still accept their invitations because I think it would be rude not to. (participant 11, using OEP)

At the micro level, decisions regarding openness relate specifically to an individual’s sense of their own digital identity and their sense of agency in managing that identity. Some participants who were open educators saw the merits of having an open digital identity and sharing this with students:

I don’t mind having all these profiles or students being able to look me up or know something about me. I think that’s probably positive... It’s part and parcel of being an academic. (participant 17, using OEP)

Others have well-developed open digital identities but do not view these as integral to their roles as educators:

I don’t mind if students follow me and if they find stuff that I’ve written online. But I just don’t encourage it as part of the teaching, or their relationship with me as their teacher. (participant 5, not using OEP)

Digital identity issues raised in this study concur with findings from previous studies by Veletsianos (2013) and others indicating “an increasing tension between personal and professional identity, the spectrum of sharing that lies between the two, and the perception of what a scholar is and what s/he does” (p. 44).

Finally, at the nano level, individuals make decisions about individual open transactions; for example, “Will I share this?” For many participants in this study, regardless of their level of openness, open practice is experienced as a process of continual reflection and negotiation, and occasionally anxiety:

It’s not that I think people in the quad are watching our every move or anything like that. But occasionally you do think, maybe I’ll be careful. (participant 14, not using OEP)

Open practice is not a one-time decision. It is a succession of personal, complex, and nuanced decisions. Individuals will always be motivated by personal values. As illustrated in this study, individual agency with respect to openness is influenced by both structure and culture. In an institution within an explicit strategy or policy regarding openness, individual educators were influenced by the absence as well as by disciplinary cultural norms and broader social norms when exercising their agency with respect to open practice.

Many open practitioners characterize openness as not just a practice but an ethos, a way of being, a commitment to democratic practices (e.g., Markiew, 2013; Naylor, 2013). While this may be the underlying motivation for many open educators, it is not a valid assumption for all open educators. Adjunct academic staff, for example, operate with a different set of structural constraints. For some, lack of access to institutional tools may act as a driver to adopt open practices; others may choose to avoid the risks of open practice due to the precarious nature of their positions.

One aspect of OEP which did not emerge in a significant way in this study was the use of OER. None of the participants spontaneously mentioned OER or open licensing. Where sharing of resources arose during interviews, I asked participants about their use of open resources. Discussion of copyright, licensing, and OER then ensued. This suggests that the relationship between OER and OEP may be more complex than sometimes conceived. Wiley (2015) notes that use of OER leads to OEP. This study suggests that the reverse can also be true: use of OEP, specifically networked participation and open pedagogy, can lead to OER awareness and use. Archer (2003) notes that structural/cultural properties have a significant, if not transformative, impact on such actions. Where openness is not “infused” at an institution (Veletsianos, 2015), as in this case, the absence of open education policy acts as a constraint to OER awareness and use. However, the nascent and growing use of OEP may lead individual educators to develop Personal Learning Networks (PLNs) through which they become aware of broader issues around openness, including OER.

Conclusions

Use of OEP by educators is complex, personal, contextual, and continually negotiated. The findings of this study highlight a number of key issues for higher education practitioners, researchers, managers, and policy makers. Open education promises much. But attention must be paid to the actual experiences and concerns of staff and students; empirical research should inform open education policy. In addition, a growing body of research advocates greater theorization and critical analysis of openness and pedagogy (see Bell, 2016; Edwards, 2015; Gourley, 2015; Kins, 2013; Watters, 2014). Recognition of the complexities and risks of openness, as well as the benefits - for individuals as well as institutions - should inform both policy and practice.

In their study of institutional culture and OER policy, Cox and Trotter (2016) found that appropriate institutional policies alone cannot ensure sustainable engagement with OER: “Institutional culture mediates the role that policy plays in academics’ decision-making.” The same appears to be true for OEP. Further research in this area would be useful; that is, studies of situated practices in specific places and times, enabling detailed exploration of agency, structure, and culture with respect to OEP. At a minimum, however, the findings of this study highlight the need for institutions to work broadly and collaboratively to build and sustain academic staff capacity in three key areas: developing digital literacies and digital capabilities; supporting individuals in navigating tensions between privacy and openness; and, critically, reflecting on the role of higher education and our roles as educators and researchers in an increasingly open and networked society.

The research study described here is limited in scope; it explores the experiences of a relatively small number of academic staff at one university. However, it extends and complements the literature, offering opportunities for further research and collaboration. This study comprised phase 1 of my PhD research study on OEP in higher education. Two further phases are currently in process. Phase 2 is a
Appendix I.

survey of all academic staff at the same university and Phase 3 follows two open educators and their students in exploring how academic staff and students interact and negotiate their digital identities in online learning spaces.

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My thanks to each of the participants in this study: without your generosity, frankness, and support, this work would not have been possible. Many thanks to my PhD supervisors, Ian MacRae, for feedback and support throughout the course of my research, and to my Graduate Research Committee: Simon Warren, Mary Fleming, Katheryn Cormican, and Kelly Coote. Finally, thanks to Frances Bell, Caroline Kuhn, and Lilo Havermann for reviewing early versions of this paper, and to three anonymous reviewers for this journal for their insightful and useful feedback.

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Appendix I.


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Appendix I

Beyond-ÖFF


APPENDIX II.
Publication (based on Literature Review, section 3.5)


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.

Key Words

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 eLearning programme (Geser, 2007a, 2007b; Schaffert & Geser, 2008). The project partners were based in six educational/research institutions in five countries. The aim of the OLCOS project was to foster the 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, 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; Karunananayaka, 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, the UKOER10 symposium, 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)
• 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 disembodied 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.

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 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 of the key strands identified above. A range of empirical work is surveyed later in this paper.

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

<table>
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<tr>
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<th>OLCOS project</th>
<th>OPAL initiative</th>
<th>UKOER programme</th>
<th>CILT research</th>
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<tbody>
<tr>
<td>Year</td>
<td>2006-07</td>
<td>2010-11</td>
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<td>Scope</td>
<td>Europe</td>
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<td>Africa/Global South</td>
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<tr>
<td>Definition of OEP</td>
<td>&quot;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&quot; (Geser, 2007a)</td>
<td>&quot;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&quot; (Andrade et al., 2011)</td>
<td>6 practices: OER production, management, use and reuse; open/public pedagogies; open learning; open scholarship; open sharing of teaching ideas; use of open technologies&quot; (Beetham et al., 2012)</td>
<td>5 dimensions of openness: technical, legal, cultural, pedagogical, financial (Hodgkinson-Williams, 2014)</td>
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</table>

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. Veletsians & 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). Veletsians 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; Veletsians & Stewart, 2016). Veletsians 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” (Veletsians & 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’
Appendix II.

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.

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 survey 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.
APPENDIX III.
Research Ethics Application (relevant pages)

RESEARCH ETHICS COMMITTEE APPLICATION FORM

For Applicant to complete:
Applicants' Name: Catherine Cronin
Title of Project: Exploring open educational practices in higher education

For Ethics Committee use only:
Reference Number: Date received:
Review Date: Outcome:
☐ Approval
☐ Provisional Approval
☐ Deferral
☐ Approval Declined
Applicant informed (Date):

Please complete form and select YES/NO options as appropriate. An electronic version of this form is also available on the NUI Galway website [http://www.nuigalway.ie/research/vp_research/ethics.htm].

An application will only be accepted for review by the NUI Galway Research Ethics Committee (REC) if it is completed fully and the relevant enclosures are received. Refer to the accompanying Guidance Notes when completing the form and complete the checklist on the next page before submitting the form. Where you have received permission to do this, or similar research in another institution, please provide evidence of permission with this application.

Please submit your completed application: application form; protocol; participant consent form(s); patient information sheet(s); Questionnaire(s), as one single PDF document.

Address to send application: NUI Galway Research Ethics Committee
Research Support Services
Unit 8, Business Innovation Centre
NUI Galway

Email address: eithne.oconnell@nuigalway.ie
SECTION 2

Study Details

8. Aims and objectives of study (i.e. what is the intention of the study, key research questions?)

Background: The overall aim of this research study is to contribute to an understanding of why and how students and academic staff engage in open educational practices in higher education. Higher education takes place within a sociotechnological context that is changing rapidly. This changing context is characterized by ubiquitous connectivity, a shift from knowledge scarcity to knowledge abundance, a move from hierarchical toward networked forms of social organization, and increasing openness. Higher education institutions and individual educators respond in various ways to these developments. Some higher education institutions have been quick to try out new models of online and open education (e.g. Massive Open Online Courses, or MOOCs), while others are taking a more deliberate approach. Balancing increasing demands on their time and attention, many educators also take a judicious approach to incorporating new practices and tools, e.g. social media, while others have moved quickly to develop themselves as networked scholars (Veletsianos, 2012). A few within this latter group have designed courses and learning activities which incorporate open educational practices in order to support students in developing digital and network literacies. The experiences of students and staff in higher education who engage in open educational practices are the focus of this study.

Purpose: The purpose of this study is to explore ways in which students and academic staff interact in open online spaces in higher education. Student–staff interaction in open online spaces (e.g. blogs, wikis, social networking sites) is not the norm in higher education. Where, how and why does this happen – and how might this be helpful in planning and evaluating future open education initiatives in higher education?

Research Questions: The three research questions for the study are:

- Why and in what ways do academic staff in higher education use online tools and spaces, both bounded and open, for research, learning and teaching?
- Why and how do students and staff interact in open online spaces in higher education?
- How do students and staff use and negotiate their digital identities in these open online spaces?

Methodology: The three-phase, sequential, mixed methods research study will take place at one higher education institution: the National University of Ireland, Galway. Phase 1 of the study will explore why and how academic staff use online tools and spaces, both bounded and open, for research, learning and teaching. This phase of the study will be undertaken via face-to-face interviews with academic staff, involving both unstructured and open-ended questions. In Phase 2 of the study, analysis and findings from the first phase will be used to design a questionnaire survey with the aim of gathering quantitative and qualitative data on a wider scale regarding the ways in which academic staff at one university use online tools and spaces for research, learning and teaching. All members of academic staff at NUI Galway will be invited to complete this survey. Through analysis of data gathered during the first two phases of the project, academic staff who use open educational practices will be identified. This will form the basis for further research in Phase 3. In this third and final phase, a case study approach will be used to explore the experiences of students and staff in two modules in which open online spaces are used by academic staff to engage with students. Students and staff in these two modules will be surveyed using interviews (staff), a questionnaire (students) and focus groups (students) to explore participant experiences of interactions in open online spaces, as well participants´ views on how they enact and negotiate their digital identities in those spaces. (NOTE: The instruments for Phase 3 will not be designed until the data from Phases 1 and 2 have been analysed. I will be happy to furnish these instruments to the Ethics Committee for further review at that time, should such be deemed necessary.)

Throughout the project, we will adhere to Ethical Guidelines for Educational Research developed by the British Educational Research Association (2011) which cover aspects regarding responsibilities to participants (including voluntary informed consent), right to withdraw, privacy, disclosure, etc.
Appendix III.

9. Scientific/theoretical background to study (Approx. 250 words)

Open education is a term that describes institutional practices and initiatives which aim to broaden access to learning and to expand learning environments. The qualifier ‘open’ refers to the elimination of barriers to institutional-based learning such as prior educational attainment and cost (Baraniuk, 2007; Open Education, n.d.). Four successive levels of openness are defined in the education literature: (i) access to educational resources, regardless of prior qualifications or permissions; (ii) free access to educational resources, i.e. at no cost; (iii) free access to open educational resources (OER), so called because they are openly licensed to permit reuse, remixing and/or repurposing and (iv) open educational practices (Knox, 2013; Taylor, 2013; Wiley, 2014). Open educational practices include the use, creation and sharing of OER, but also engagement in open online spaces with other scholars and students for the purposes of learning, teaching, and/or research. When focused on learning and teaching, open educational practices are often described in terms of networked learning or connected learning. Networked learning builds on the concept of networked individualism, which describes how people function increasingly as connected individuals in networked forms of social organization (Castells, 2009; Rainie & Wellman, 2012). There is a large body of research in the area of networked learning in higher education (Dirckinck-Holmfeld et al, 2012; Goodyear et al, 2004). Connected learning has developed separately, from work in social constructivism, connectivism, and participatory culture (Downes, 2007; Ito, 2013; Siemens, 2006). Connected learning is characterised by breaking boundaries between formal and informal learning, valuing learner agency, authentic problem-solving and peer support. Networked learning and connected learning provide useful frameworks for exploring and analysing open educational practices in higher education, including consideration of important issues such as access, privacy, and digital identity.

10. Description of Research (i.e. what do you intend to do?)

The sequential, mixed methods study will take place in three phases:

1. Interviews: academic staff – The research methodology for Phase 1 will be grounded theory. Semi-structured, open-ended interviews will take place with members of academic staff. All interviews will be audio recorded and transcribed verbatim, and short contemporaneous notes will be taken. Using the constant comparative method, data analysis will be undertaken concurrently with data gathering, and results of early interviews will enable refinement of the interview schedule for subsequent interviews (Glaser & Strauss, 1967).

2. Questionnaire survey: academic staff – The goal of grounded theory is to generate concepts which explain the way that people resolve their central concerns. Thus the findings which emerge from Phase 1 of the study will inform the development of the questionnaire survey in Phase 2. All members of academic staff at NUI Galway will be invited to complete this survey (although there are realistic expectations with regard to the likely response rate and care will be taken in terms of claims of representativeness).

3. Case study: students and staff – Phase 3 of the study will use a case study approach to explore interactions of students and staff in open online spaces. The courses and cohorts to be studied will be based on the results from Phases 1 and 2 of the study, during which academic staff engaged in open educational practices will be identified. The case study approach has been selected because it allows investigation, in context, of real life, complex, dynamic and unfolding interactions of human relationships and other factors (Cohen et al, 2011). The case study methodologies will include interviews, a questionnaire and focus groups. Interviews will be held with the academic staff members who teach the modules. Students will be surveyed via questionnaire and focus groups. Together, interviews, questionnaires and focus groups will enable an exploration of staff and student experiences of their interactions in open online spaces, as well as participants’ views on how they enact and negotiate their digital identities in these spaces.
Appendix III.

11. List procedures or investigations involving risks to participants’ well-being or safety
(what, when, how often and risks associated with all procedures)

There are risks to be considered in all projects, and at every stage of the research process. The procedures
involved in this project are (i) questionnaire surveys and interviews with academic staff regarding their
academic practice, and (ii) questionnaire surveys and focus groups with students, also regarding their
academic practice and digital identities. However, due to the nature, focus and design of this study, during which
ethical guidelines have been consulted and will be followed at every stage, it is believed that there are no risks to
participants’ safety, and any risks to participants’ well-being will be minimal.

12. Study design (tick as appropriate)

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Forms of Recording

| • Video                | X |
| • Audio                |   |
| • Photography          |   |
| • Notes                | X |
| • Electronic recording | X |

13. Size of the study (including controls):

(i) How was the size of the study determined?

The size of the study will be different in each of the three phases:

1. Interviews: academic staff – Following grounded theory methodology, a small number of
exemplars of various pedagogical approaches will be invited to participate. Once data has been
gathered and analysed from these initial participants, future participants will be selected based on
theoretical sampling, i.e. the researcher/analyst jointly collects, codes and analyses data, then decides
what data to collect next and where to find them, in order to develop a theory as it emerges (Glaser &
Strauss, 1967; Charmaz, 2014). Interviews will continue until the categories, to be identified, are
saturated.

2. Questionnaire survey: academic staff – There will be no sampling in Phase 2, as the entire
population will be invited to participate. All members of academic staff at NUI Galway
(approximately 1000 people) will be invited to complete the survey.

3. Case study: students and staff – The case study approach enables in-depth description and analysis
of events and interactions, in context. For the purposes of this study, two case studies will be
conducted. These two cases will be selected from all instances of open education that emerge from
Phases 1 and 2. The cap of two on the number of case studies is driven by the practical constraints of
a one-researcher project, with the case study portion of the research representing just one of the three
phases of work to be undertaken. Efforts will be made to ensure that the two case studies represent
diversity in terms of student profile and academic discipline.
Appendix III.

14. Where1 will the study take place and in what setting?

This study will take place at the National University of Ireland, Galway, via in-person interviews and focus groups. Questionnaires will be administered online.

15. Does the study involve:

(i) distribution of a questionnaire? YES: X NO: 
If YES, please append a copy of the questionnaire to this application. Please indicate whether the appended questionnaire is: Non-validated: X Validated: 

(ii) the use of a existing medicinal product or medical device? YES NO X
If YES, is this medical product or device being used within the terms of its current product licence?
YES NO 
If NO, please complete Annex 1 of this application.

(iii) the use of ionising or non-ionising radiation, radioactive substances or X rays?
YES NO X
If YES, please complete Annex 2 of this application.

16. Peer Review/Critique3

Has the protocol been subject to peer review? YES NO

If the review formed part of the process of obtaining funding, please give the name and address of the funding organisation:

Not applicable

If the review took place as part of an internal process, please give brief details:

This study has been reviewed and approved by my supervisor, Dr. Iain MacLaren, and two members of my Graduate Research Committee: Dr. Kathryn Cormican, Lecturer in Technology Innovation & Entrepreneurship, College of Engineering & Informatics, NUI Galway, and Dr. Mary Fleming, Head of the School of Education, NUI Galway.
Appendix III.

SECTION 3  
Recruitment of participants

18. Who is being studied?

If non-competent persons are being studied, please give details of reasons for non-competence

Not applicable

19. How will be the participants in the study be:

(i) Selected?

Participants will be selected based upon the following:

1. **Interviews: academic staff** – For Phases 1 and 2 of the study, participants will be members of academic staff working at NUI Galway. To avoid obvious bias, initial participants in Phase 1 will be selected to ensure representation across three factors: discipline, gender and employment status. Firstly, participants will be selected from across disciplines with different cultures and pedagogical philosophies, using Biglan’s (1973) typology of disciplines: hard and soft; pure and applied (further discussed and developed in Bocher & Trowler (2001) and Trowler, Saunders & Bamber (2012)). Secondly, an equal representation of female and male participants will be selected. Thirdly, regarding employment status, “academic staff” will be defined in its broadest sense, i.e. persons employed by the university to teach students. These may be full-time or part-time staff, on permanent or non-permanent contracts. Beyond these three factors, the participants will include both members of staff who are currently enrolled in a professional development course re: teaching and learning; and staff members who are not.

2. **Questionnaire survey: academic staff** – No selection criteria will apply in Phase 2, as all academic staff (as defined above) at NUI Galway will be invited to complete the survey.

3. **Case study: students and staff** – It is anticipated that relatively few examples of open educational practice will emerge from Phases 1 and 2. From this group, selection of participants will be based on staff and student willingness to participate in Phase 3, and ensuring diversity across the 2 case studies.

(ii) Recruited? (Please append advertisement materials to application)

Phase 1 – Participants who meet the inclusion criteria will be recruited via personal contact via email (see Appendix 2). Phase 2 – All academic staff will be invited to complete the survey. Phase 3 – Academic staff who are engaged in open educational practices in two different modules will be invited to participate in Phase 3 (as described above). Within each of these modules, students will be invited, but not required, to participate, i.e. to complete an anonymous questionnaire and/or to participate in small focus group sessions.

20. What criteria will be used for inclusion and exclusion of participants?

(i) Inclusion criteria:

Participants will be included based upon the following:

1. **Interviews: academic staff** – Academic staff at NUI Galway

2. **Questionnaire survey: academic staff** – Academic staff at NUI Galway

3. **Case study: students and staff** – Students and staff at NUI Galway

(ii) Exclusion criteria:

Given the nature of the study and the broad categories, no further refinement is necessary for exclusion purposes, beyond the selection criteria outlined in item 19.
Appendix III.

21. How many participants will be recruited and of what age groups?

1. **Interviews: academic staff** – Following grounded theory methodology, a small number of staff will be invited to participate initially, following the selection criteria outlined in item 19. Once data has been gathered and analysed from these initial participants, future participants will be selected based on theoretical sampling (as described in item 13). Interviews will continue until the categories, to be identified, are saturated. In practical terms, it is expected that the number of participants in this first phase of the study will not exceed fifteen.

2. **Questionnaire survey: academic staff** – All academic staff at the National University of Ireland, Galway will be invited to complete the questionnaire.

3. **Case study: students and staff** – Staff and students engaged in two academic modules will be invited to participate in Phase 3. This will likely mean two members of academic staff and an unknown number of students – not expected to exceed 100 in total. All students will be over age 18.

22. If applicable, how will the control group in the study be:

   (i) Selected?
   
   Not applicable

   (ii) Recruited? (please append advertisement materials to application)
   
   Not applicable

23. What criteria will be used for inclusion and exclusion of the control group?

   (i) Inclusion criteria:
   
   Not applicable

   (ii) Exclusion criteria:
   
   Not applicable

24. If applicable, how many controls will be recruited and of what age group?

   Not applicable

25. Are the participants/controls included in this study involved in any other research investigation at the present time?

   YES: □ NO: X

26. Will participants receive any payment or other incentive to participate?

   YES: □ NO: X
Appendix III.

SECTION 4

27. Is written consent for participation in the study to be obtained?
   YES: X   NO: 

   If YES, please attach a copy of the consent form to be used *(Guidance on consent is given in the Guidance Notes)*

   If NO written consent is to be obtained, please explain why

28. How long will the subject have to decide whether to take part in the study?
   (If less than 24 hours, please justify)

   1. Interviews: academic staff – Participants will be contacted individually and invited to participate in the study. All invited to participate will receive an Letter of Invitation email (Appendix 2), a Participant Information Sheet (see Appendix 3) and a Consent Form (Appendix 4). If subjects agree to participate, arrangements will be made at a time and in a location preferred by the subject.
   2. Questionnaire survey: academic staff – An group invitation to complete the survey will be sent via email to all members of academic staff at the university. The timeframe for completion of the questionnaire will be two weeks. A reminder email will be sent 4 days before the two-week deadline.
   3. Case study: students and staff – Individual email contact will be made with both members of academic staff who are invited and agree to participate in Phase 3. Plenty of advance notice will be provided to both staff and students prior to participation in the project.

29. Does the study include participants whom are not competent English speakers and/or do not comprehend spoken or written English?
   YES: X   NO: 

   If YES, give details of special arrangements made to assist these participants

   Some participants (given the international nature of this institution) – members of academic staff and students – will not have English as their first language. However, by definition, as they are either teaching or enrolled as students in courses taught through English, all will be expected to be proficient in English.

30. Please attach a copy of the written participant information sheet
   If NO information sheet is to be given to participants, please justify

   Please see Appendix 3.

31. If you are recruiting from vulnerable groups (Children under 18 years of age; People with learning difficulties; Unconscious or severely ill participants; Other vulnerable groups e.g. dementia, psychological disorders, etc.), please specify and justify

   Not applicable

(i) What special arrangements have been made to deal with the issues of consent and assent for vulnerable participants e.g. is parental or guardian agreement to be obtained, and if so in what form?

   Not applicable
Appendix III.

SECTION 6  Risks and ethical problems

37. Are there any potential risks to participants?
   YES: ☐   NO: ☑

If YES, please complete Annex 3 for each procedure for which a potential risk occurs.

38. Could this study cause any discomfort or distress, either physical or mental?
   YES: ☐   NO: ☑

If YES, estimate the degree and likelihood of discomfort or distress entailed and the precautions to be taken to minimise them.

NOTE: It is not anticipated that participating in this research study will cause discomfort or distress to participants. It will be made explicitly clear to participants that they are free to withdraw from the study at any time.

Please include other potential embarrassments to the subject that should be explained prior to obtaining consent (e.g. state of undress etc)

39. What particular ethical problems or issues do you consider to be important or difficult with the proposed study?

I do not anticipate particular ethical problems in this research study. Ethical Guidelines for Educational Research (BERA, 2011) will be followed and every effort will be made to ensure and communicate the right to withdraw, privacy, confidentiality and anonymity for participants.

For Phases 1 and 2, I will communicate with academic staff via one-on-one interviews about their professional practice and through administering an anonymous survey. I do not anticipate ethical issues at this stage, and participants are free to leave the study at any time should any issues arise.

For Phase 3, there will be one-on-one interviews with academic staff and an anonymous survey of students. There are no significant ethical issues anticipated here. One aspect of the study that will require extra care in design and facilitation will be the focus groups with students. As noted by Coen et al (2011), facilitators of focus groups must be aware of the potential for group dynamics leading to dominance by some members, group disagreement, and even conflict. Focus groups require skilful facilitation and management in order to minimise or avoid problems such as these which could cause discomfort for participants. As the researcher and interviewer, I have considerable experience in group facilitation, and have taught group facilitation in the past, so I am confident that such issues can be avoided. If problems or issues do arise, they be dealt with fairly and sensitively.

(i) Will treatments provided during the study be available if needed at the end of the study?
   YES: ☐   NO: ☑   Not applicable: ☑

(ii) If NO, is this made clear in the participant information sheet?
   YES: ☐   NO: ☑
Appendix III.

SECTION 8 Confidentiality

43. Will the study include the use of any of the following?

- Audio/Video recordings: YES [ ] NO: [X]
- Observation of participants: YES [ ] NO: [X]

If YES to either:

(i) How are confidentiality and anonymity to be ensured?

During every stage of the research study, confidentiality and anonymity of participants will be ensured.

1. Interviews: academic staff – Participants will be anonymized through the use of numerical codes rather than names to identify individual datasets. There is no need to associate names with interviews when using a grounded theory approach; grounded theory focuses on patterns of behaviours rather than on individual people. Immediately after each interview is transcribed, and before any analysis, the transcript will be sent to the participant so that they can ensure that any information which might identify them can be deleted or amended, and so that they can either approve or refuse its inclusion in the study. In addition, all files used by the researcher will be password protected.

2. Questionnaire survey: academic staff – The questionnaire survey will be designed to be returned anonymously.

3. Case study: students and staff – As above, interview data and questionnaire data will be managed to ensure confidentiality and anonymity. In the focus group sessions, anonymity is not possible, but all participants will be asked to sign a form stating that the proceedings of the focus group discussions will remain confidential within that group and that room.

(ii) What arrangements have been made to obtain consent for these procedures?

Arrangements in relation to this matter are clearly stated in the participant information sheet and consent form. Please see Appendices 3 and 4.

(iii) What will happen to the tapes at the end of the study?

The digital audio recordings will be password-protected and stored at NUI Galway. Five years after completion of the study, the recordings will be permanently deleted.

44. Will the study data be held on computer?

YES [X] NO: [ ]

If YES, will the data be held so that participants cannot be identified from computer files (i.e. no name, address, medical chart number or other potential identifier such as GMS or RSI number)?

YES [X] NO: [ ]

If NO, please give reasons

Page 18 of 36
Appendix III.

45. Will records (preferably paper records) linking study participant ID with identifying features be stored confidentially? (Please refer to the REC policy on Data Retention: http://www.nuigalway.ie/research/vp_research/documents/ethics_committee_docs/datapolicy.pdf)

YES: X NO: 

Please give details of arrangements for confidential storage

Any hardcopies of the data will be securely stored in a locked cupboard in my office (also locked) on campus. All files stored online will be in a password-protected folder. In addition, my supervisor, Dr. Iain MacLaren and I will be the only persons with access to this information.

For how long will records be retained prior to destruction?

The audio recordings will be stored in a password-protected online folder at the National University of Ireland, Galway. Five years after the completion of the study, the audio recordings will be deleted.

46. Will the participants’ medical records be examined by investigators in the study?

YES: X NO: 

If YES, will information relevant only to this study be extracted? YES: X NO: Not applicable:

(1) If extra information is extracted, please justify
Not applicable

(2) What, if any, additional steps have been taken to safeguard the confidentiality of personal medical records?
Not applicable

47. Will research workers outside the employment of NUI Galway examine medical or other personal records?

YES: X NO: 

If YES, it is the responsibility of the Principal Applicant to ensure that research workers understand that: Information obtained about and from research participants is confidential to the study and must not be divulged except in legitimate methods of study data presentation or exceptional circumstances as discussed and agreed with the principal investigator.

Please ensure that you complete the checklist on the front cover of this application form and include all relevant enclosures.

THANK YOU.
PARTICIPANT INFORMATION SHEET

You are being invited to take part in a research study. This is part of a Ph.D. research study being undertaken by Catherine Cronin in the Centre for Excellence in Learning and Teaching (CELT) at NUI Galway.

Before you decide whether or not to participate, please read the following information. This Participant Information Sheet will tell you about the purpose, risks and benefits of the study. If you agree to take part, you will be asked to sign a Consent Form. If there is anything that you are not clear about, we will be happy to discuss it in more detail with you.

Provisional Study Title
Exploring open educational practices in higher education

What is the purpose of this study?
The purpose of this research study is to contribute to an understanding of open educational practices in higher education. The first phase of the study, in which you are invited to participate, will address the following question: Why and in what ways do academic staff in higher education use online tools and spaces, both bounded and open, for their research, learning and teaching? After completion and analysis of this first phase of the study, a later phase of the study will examine two modules to explore how students and staff interact in open online spaces and how they construct and negotiate their digital identities in those spaces.

To clarify: this invitation to participate in an interview is for Phase One of the study (highlighted in bold above).

Do I have to take part?
Your participation is entirely voluntary and you are under no obligation to participate. If you do take part, you may leave the study at any stage and withdraw any information that you have provided, without giving a reason.

Why have I been chosen?
You have been chosen due to the fact that you are a member of staff at NUI Galway.

What will happen to me if I take part?
You will be asked to participate in an interview with me for approximately one hour, at a time and in a location of your choice. During the interview, you will be asked to describe and discuss your use of online tools and spaces for learning, teaching and research. The interview will be
Appendix IV

audio recorded and transcribed by me. Following transcription, the transcript will be returned to you and you may make any amendments you wish. Data from the interview may be presented within my Ph.D. thesis and/or any related publications, although all data will be anonymised.

**What are the possible benefits of taking part?**
The main benefit is the opportunity to contribute to the development and understanding of the future of online and open education at NUI Galway and in higher education more generally. Another benefit may be the opportunity to reflect on your experiences and current practices of research, learning and teaching.

**What are the possible disadvantages and risks of taking part?**
There are no foreseeable risks attached to taking part. If any problems arise, you may contact my research supervisor Dr. Iain MacLaren, Director of CELT, NUI Galway (details below).

**Will my participation in this study be kept confidential?**
All data collected during the course of the research will be kept strictly confidential. Each interview will be audio recorded and transcribed without any identifying information about you as a participant. Immediately after your interview is transcribed by me, and before any analysis, the transcript will be returned to you so that you can review it and make any changes you wish. Only my supervisor, examiners, and I will have access to the recordings and anonymised transcripts. All data for the study will follow strict protocols so that anonymity and confidentiality will be ensured.

**Who has reviewed the study?**
This study has been reviewed by my research supervisor Dr. Iain MacLaren. If you have any questions you may contact him directly: iain.maclaren@nuigalway.ie.

**Whom do I contact for further information or if I have further concerns?**
Please feel free to contact me or my research supervisor Dr. Iain MacLaren. If you have any concerns about this study and wish to contact someone independent and in confidence, you may contact the Chairperson of the NUI Galway Research Ethics Committee, c/o Office of the Vice President for Research, NUI Galway, ethics@nuigalway.ie

Many thanks for your time.
Catherine Cronin
Centre for Excellence in Learning and Teaching
School of Arts, Social Sciences, and Celtic Studies
National University of Ireland, Galway
Email: catherine.cronin@nuigalway.ie
Phone: (087) 997 3372
APPENDIX V. Consent Form

INTERVIEW CONSENT FORM

TITLE OF PROJECT: Exploring Open Educational Practices in Higher Education

RESEARCHER: Catherine Cronin

1) I confirm that I have read the Participant Information Sheet (version 2, dated July 2nd, 2015) for the above study.
   Yes [  ] No [  ]

2) I confirm that I have had the opportunity to ask questions.
   Yes [  ] No [  ]

3) I am satisfied that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.
   Yes [  ] No [  ]

4) I agree to the interview being audio recorded, with the assurance of confidentiality and anonymity provided.
   Yes [  ] No [  ]

5) I agree to take part in the above study.
   Yes [  ] No [  ]

Name of Participant:

Signature of Participant: Date:

Name of Researcher:

Signature of Researcher: Date:
Dear _______.

I am currently engaged in PhD research exploring how academic staff and students use online tools for teaching, learning and research. Why and how do/don't you use tools like Blackboard, Google Scholar, Academia.edu, social media, etc.? I am seeking to develop an understanding of these choices in order to contribute to a broader understanding of the future of online, blended, and open education.

I invite you to participate in this research. Participation will take the form of an informal interview (approximately one hour) at a time and location of your choice. Interviews will take place between June and September 2015.

If you would be willing to participate, or would like to discuss further, would you please reply to me by email?

I plan to interview a broad range of academic staff across disciplines, levels, and employment status (e.g. full-time, part-time, adjunct). I also would like to speak with staff with various levels of online engagement ranging from pragmatic users of few online tools to those negotiating a broad web of academic and social networking sites. As I am looking to interview a diverse range of participants, it is possible that I will not be able to interview all volunteers. However, I will confirm arrangements with you as soon as possible.

Many thanks for your consideration.

Kind regards,

Catherine
APPENDIX VII. Interview Schedule

INTERVIEWS WITH ACADEMIC STAFF (Phase I)

A. Participant details
- Discipline
- Gender
- Employment status (permanent/fixed-term, full-time/part-time)

B. Your research practice
1. Please describe your research area(s).
2. How do you keep up-to-date in your field?
3. Have you created a profile on any of these networks to keep up to date with research, share your research, or track your citations? (NUIG-IRIS, Academia.edu, ResearchGate, Google Scholar, ORCID, other)

C. Your teaching practice
4. What modules do you currently teach? (undergraduate/postgraduate, classroom/practical, on-site/blended/online)
5. Do you use Blackboard for the modules you teach? If so, how?
6. Do you use or create any other online sites for the modules you teach? (e.g. course website, wiki, blog)
7. Do any of your modules use a specific textbook(s)? If so, what is it and how do students access this (if you know)?
8. What teaching methods do you use across the various modules you teach?
9. Could you describe your overall teaching philosophy?
10. Have you taken any courses to learn about teaching, or about teaching with technology? What was your experience?
11. Have you taken any online courses or MOOCs? What was your experience?
12. Do you use open resources, either in your own learning or in your teaching?
13. Are you aware of Creative Commons licenses? If so, have you used them? What was your experience?

D. Your & your students’ use of social media
14. Can you please identify which social media and social networks you use, and in what ways?
15. Regarding the use of social media/social networks for teaching, can you please describe why you [do/do not] use these?
16. What do you know about how your students use social media? *(in general? for their studies? in your specific modules?)*

17. Is there anything you wonder about re: students’ use of social media?

18. Do you connect with your students on any form of social media? Why or why not?

**E. Your online presence**

19. Have you Googled yourself recently? Do you know what appears when you use Google (or another search engine) to search for your name?

20. Where would someone find information about your work online? Do you have an online hub? *(e.g. website)*

21. What online contact do you typically share when you meet people at a conference, for example?

22. Overall, how would you describe your digital identity?

23. What are your general attitudes to online privacy? Are there any differences in your attitudes to privacy as a citizen versus as an academic?

Any final comments or questions?
APPENDIX VIII. Academic Staff Survey

Staff Survey (Phase II)

1. Gender:  □ Female  □ Male

2. Age:  □ 20’s  □ 30’s  □ 40’s  □ 50+

3. College or unit (in which I do all or most of my work):
   □ College of Arts, Social Sciences & Celtic Studies
   □ College of Business, Public Policy & Law
   □ College of Engineering & Informatics
   □ College of Medicine, Nursing & Health Sciences
   □ College of Sciences
   □ Centre for Adult Learning & Professional Development
   □ Research unit (please specify): ____________________________
   □ Other (please specify): ____________________________

4. My job title:
   □ Professor
   □ Senior Lecturer
   □ Lecturer
   □ Researcher
   □ Academic or Programme Coordinator
   □ Learning Technologist
   □ Tutor
   □ Teaching Assistant
   □ Other (please specify): ____________________________

5. I divide my working time approximately as follows: (please enter percentages in spaces provided)
   □ Teaching
   □ Research
   □ Administration
   □ Community/Public outreach
   □ Other (please specify) ____________________________

6. My current employment status is:
   □ Permanent, full-time
   □ Permanent, part-time
   □ Fixed-term contract, full-time
   □ Fixed-term contract, part-time
   □ No contract
   □ Other (please specify): ____________________________

7. I teach students at the following levels: (please tick all that apply)
   □ Undergraduate
   □ Postgraduate
   □ Adult learning
   □ Other (please specify) ____________________________
8. **Please rank the following statements from 1 to 4.**
In my teaching, I place emphasis on:

- Presenting the required content in the form of lectures, notes and readings
- Helping students to acquire the concepts of the discipline
- Encouraging students to develop their own conceptions
- Facilitating conceptual change

9. **When I present at an academic conference I give the following as my main online contact:**
   *(if you typically provide more than one contact, please tick all that apply)*

   - [ ] My NUI Galway email address
   - [ ] My IRIS page or department/school web page
   - [ ] My LinkedIn profile
   - [ ] My Academia.edu page
   - [ ] My ResearchGate page
   - [ ] My Google Scholar profile page
   - [ ] My Twitter name
   - [ ] My Facebook profile or page
   - [ ] My blog
   - [ ] Other *(please specify)*: __________________________
   - [ ] N/A

10. **I have created a profile on the following social networks (please tick all that apply):**

    - [ ] LinkedIn
    - [ ] Facebook
    - [ ] Twitter
    - [ ] Academia.edu
    - [ ] ResearchGate
    - [ ] Google Scholar
    - [ ] Other *(please specify)*: __________________________
    - [ ] I do not use any social networks *(skip to Question #23)*

11. **The frequency with which I tend to post online is: (approximately)**

    - [ ] Don’t use/post
    - [ ] Daily
    - [ ] Weekly
    - [ ] Monthly
    - [ ] Semi-annually
    - [ ] Annually

    **Facebook:**
    - [ ] Daily
    - [ ] Weekly
    - [ ] Monthly
    - [ ] Semi-annually
    - [ ] Annually

    **Twitter:**
    - [ ] Daily
    - [ ] Weekly
    - [ ] Monthly
    - [ ] Semi-annually
    - [ ] Annually

    **LinkedIn:**
    - [ ] Daily
    - [ ] Weekly
    - [ ] Monthly
    - [ ] Semi-annually
    - [ ] Annually

    **Blog:**
    - [ ] Daily
    - [ ] Weekly
    - [ ] Monthly
    - [ ] Semi-annually
    - [ ] Annually

    **Other:**
    - [ ] Daily
    - [ ] Weekly
    - [ ] Monthly
    - [ ] Semi-annually
    - [ ] Annually

*(please specify below)*
12. My use of Facebook:
   - I don’t use Facebook. *(skip to Question #17)*
   - I have 1 Facebook account.
   - I have 2 Facebook accounts.
   - I have 3 or more Facebook accounts.

13. How I use my Facebook account(s):
    *Please specify whether you use Facebook for personal use, professional use, community use, etc. and whether/how you combine these.*

14. How I use Facebook Group(s): *(please tick all that apply)*
    ‘Facebook Groups’ are dedicated spaces that can be set up in Facebook to allow people to communicate within specific groups (e.g. family, teammates, coworkers, students).
    - I don’t use Facebook Groups.
    - I use Facebook Group(s) for personal and/or community use.
    - I use Facebook Group(s) for professional use, e.g. learning, research, networking.
    - I use Facebook Group(s) for teaching, i.e. interacting with students.

15. How I use Facebook Page(s): *(please tick all that apply)*
    ‘Facebook Pages’ allow individuals or organisations to share announcements, posts, events, etc., enabling sharing between people who may or may not be Facebook friends.
    - I don’t use Facebook Pages.
    - I use Facebook Page(s) for personal and/or community use.
    - I use Facebook Page(s) for professional use, e.g. learning, research, networking.
    - I use Facebook Page(s) for teaching, i.e. interacting with students.

16. When receiving a Facebook friend request, I tend to respond as follows:

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Accept</th>
<th>Probably Accept</th>
<th>Probably Ignore</th>
<th>Ignore</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A friend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A close work colleague</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An acquaintance at NUIG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone I meet at conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My PhD student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Another PhD student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A past graduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. My use of Twitter:
   - I don’t use Twitter. *(skip to Question #20)*
   - I have 1 Twitter account.
   - I have 2 Twitter accounts.
   - I have 3 or more Twitter accounts.
18. How I use my Twitter account(s):
   Please specify whether you use Twitter for personal use, professional use, community use, etc.
   and whether/how you combine these.

19. How Twitter relates to my teaching:
   □ I do not interact with my students on Twitter, nor do I discuss Twitter with
     students.
   □ I do not interact with my students on Twitter but I sometimes talk with them
     about Twitter (e.g. accounts related to our module or discipline).
   □ I am visible to my students on Twitter & occasionally interact with them there.
   □ I interact with my students on Twitter & share useful resources using a module
     hashtag(s).
   □ I interact with my students on Twitter; share useful resources using a module
     hashtag(s); and I also teach with Twitter, encouraging students to tweet (either
     via their own accounts or a module account).

20. My experience with blogging: (please tick all that apply)
   □ I don’t have a blog and don’t plan to start one. (skip to Question #22)
   □ I’ve thought about starting to blog, but haven’t done it yet. (skip to Question #22)
   □ I write my own blog.
   □ I write with others in a multi-authored blog.
   □ I encourage my students to blog.

21. If you blog, what platform(s) do you use? (e.g. Blackboard, WordPress, Blogger)

22. If you encourage your students to blog, do you require/suggest/encourage them to use
    any particular platform? (e.g. Blackboard, WordPress, Blogger)

23. Please tick all statements that apply:
    Overall, I believe that academic staff connecting with students online, outside of
    Blackboard and email:
    □ Improves sharing of resources and networks between staff and students.
    □ Helps students to develop digital literacies.
    □ Enhances the staff-student relationship and communication.
    □ Entails risks for students (e.g. staff seeing personal conversations or photos).
    □ Entails risks for staff (e.g. students seeing personal conversations or photos; no
      protection of university in case anything goes wrong).
    □ Is not appropriate.
    □ Other (please specify) ________________________________

24. Please tick all statements that apply:
    My preferred ways of learning about new digital tools & technology (e.g. software, apps):
    □ I work it out for myself by trial and error.
    □ I consult colleagues or friends.
    □ I look for instructions or guidance on the internet.
    □ I contact my professional networks for advice.
Appendix VIII

25. Overall, I rate my confidence with learning new digital tools & technology as follows:
   □ Very confident
   □ Confident
   □ Somewhat confident
   □ Not confident
   □ Don't know

26. What comes to mind when you think of the digital literacies needed to be successful in your discipline? Are there any differences in what's required for students/staff?

27. How aware are you of each of the following licensing mechanisms?

<table>
<thead>
<tr>
<th>Copyright:</th>
<th>Unaware</th>
<th>Somewhat aware</th>
<th>Aware</th>
<th>Very aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative Commons:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public domain:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28. Please tick all statements that apply:
   My practices with respect to copyright and Creative Commons, as they relate to my work as an academic:
   □ I make a specific effort to find and share free online resources with my students.
   □ I make a specific effort to find and share Creative Commons licensed resources with my students.
   □ I teach my students about copyright and Creative Commons licensing.
   □ I do not share my own educational resources online.
   □ I sometimes share educational resources online, but don’t worry about copyright.
   □ I sometimes share educational resources online, using Creative Commons licenses.
   □ None of the above.
Please tick one option for each of the following statements.

☐ Agree  ☐ Somewhat Agree  ☐ Somewhat Disagree  ☐ Disagree  ☐ Don't Know

29. Protecting my online privacy is very important to me.
30. I am concerned about the privacy practices of corporations that track my online data and interactions.
31. As 'digital natives', younger people tend to be more skilled at using digital and social media.
32. I am worried that young people use social media and social networks too much.
33. I think it is important for academics to share their work publicly (e.g. public events, newspapers, radio broadcasts).
34. I think it is important for academics to share their work publicly online (e.g. websites, blogs, webinars).
35. I make an effort to share my work publicly.
36. My workload tends to increase each year.
37. I sometimes feel overwhelmed by the amount of work I have to do in order to keep up with my teaching, research and administrative responsibilities.
38. I feel that the amount and quality of work that I do is recognised within my discipline.
39. I feel that the amount and quality of work that I do is recognised within the University.
40. I have adequate opportunities for professional development.

41. My greatest source of enjoyment & satisfaction in my work is:
42. My greatest source of stress or anxiety in my work is:
43. My greatest source of support in my work is:
APPENDIX IX. Student Survey

Student Survey

Interactions and digital identity in open online tools and spaces

A. INTRODUCTION

1. Gender:  □ Female  □ Male

2. Age:  □ 18-23  □ 24 or older

3. Which devices do you usually use to access the following? (tick all options that apply)

<table>
<thead>
<tr>
<th></th>
<th>Smartphone</th>
<th>Tablet</th>
<th>Laptop</th>
<th>Home computer</th>
<th>NUI Galway computer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Media</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. USE OF SOCIAL MEDIA

4. Please tick the social media tools that you currently use – and please add any tools that you think should be on this list:

   □ Facebook
   □ Twitter
   □ Snapchat
   □ WhatsApp
   □ Viber
   □ Instagram
   □ YouTube
   □ Yik Yak
   □ Other (please specify) ________________________________
   □ Other (please specify) ________________________________

5. What are the 3 social media tools that you use **THE MOST** (i.e. most amount of time per day, on average)?

6. What are the 3 social media tools on which you have the **LARGEST NETWORK** (i.e. connected with the most people)?
7. How many Facebook accounts do you have?
   - [ ] 0
   - [ ] 1
   - [ ] 2
   - [ ] 3 or more

8. How many Twitter accounts do you have?
   - [ ] 0
   - [ ] 1
   - [ ] 2
   - [ ] 3 or more

9. Do you have a blog?  [ ] Yes  [ ] No
   If YES, which platform? ____________________________

10. Do you have a LinkedIn profile?  [ ] Yes  [ ] No
    If so, how long have you had this? ____________________________

11. What social media tools do you use most often in relation to your coursework?
    - [ ] for communicating with friends/classmates, in relation to coursework?
    - [ ] for finding materials in relation to coursework?
    - [ ] for sharing materials in relation to coursework?

12. Are you aware of the online presence of any of your lecturers on social media?  [ ] Yes  [ ] No

13. Are you connected with any of your lecturers on social media?  [ ] Yes  [ ] No
    If YES, which tool/platform(s)? ____________________________

14. Have you specifically been invited by any of your lecturers to share materials or comments online using social media?  [ ] Yes  [ ] No
    If YES, which tool/platform? ____________________________
15. If you have been invited by a lecturer to use Twitter in relation to your coursework, how have you responded? (please tick all that apply)
   - [ ] I do not participate.
   - [ ] I mostly watch the online Twitter chat, but do not engage.
   - [ ] I engage in the chat, using the module Twitter account.
   - [ ] I engage in the chat, using my personal Twitter account.
   - [ ] I engage in the chat, using a new personal Twitter account that I created for this class.

16. What are your reasons for participating, or not participating?

17. How do you manage your use of social media for both social and academic purposes?

18. How would you describe your digital identity?

19. Do you ever use different identities (e.g. usernames, avatars) on different social networks? Why or why not?

20. Any final comments or suggestions?
## APPENDIX X. Conferences/Webinar Presentations

<table>
<thead>
<tr>
<th>Conference</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Open Education Global Conference 2017</td>
<td>Cape Town, South Africa</td>
</tr>
<tr>
<td>Open Education Resources Conference 2017</td>
<td>London, UK</td>
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<tr>
<td>Networked Learning Conference 2016</td>
<td>Lancaster University, UK</td>
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<tr>
<td>Next Generation Digital Learning 2016</td>
<td>Dublin City University, Ireland</td>
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<tr>
<td>Digital Learning Research Network 2015</td>
<td>Stanford University, USA</td>
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<tr>
<td>Open Education Resources Conference 2016</td>
<td>University of Edinburgh, UK</td>
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<tr>
<td>Association of Learning Technology 2015</td>
<td>University of Manchester, UK</td>
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<tr>
<td>Open Education Resources Conference 2015</td>
<td>University of Cardiff, UK</td>
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<tr>
<td>Association of Learning Technology 2014</td>
<td>University of Warwick, UK</td>
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<tr>
<td>Networked Learning Conference 2014</td>
<td>University of Edinburgh, UK</td>
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<tr>
<th>Invited Seminars / Webinars</th>
<th>Host / Organiser</th>
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<tbody>
<tr>
<td>Open educational practices. <em>Open Education</em> webinar series (2017)</td>
<td>OpenMed, Mediterranean Universities Union, Spain</td>
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<tr>
<td>OEP for teaching in higher education. <em>Growing OEP in Africa</em> webinar series (2017)</td>
<td>e/merge Africa, University of Cape Town, South Africa</td>
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<tr>
<td>Choosing open. <em>Digital Learning Environments, Networks, Communities</em> virtual symposium (2017)</td>
<td>Royal Roads University, Victoria, BC, Canada</td>
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<tr>
<td>Choosing open. <em>Open Education Tuesdays</em> webinar series (2017)</td>
<td>Universidad Internacional de la Rioja, Spain</td>
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<tr>
<td>Exploring our digital identities. <em>ePortfolio project</em> and conference (2016)</td>
<td>Dublin Institute of Technology, Ireland</td>
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