

# A case study of student adaptation of Open Educational Resources at the University of Cape Town: A Diffusion of Innovations approach

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## Abstract

Higher education faces considerable pressure to innovate in its scope, relevance and modes of delivery, while simultaneously facing a restrictive funding environment. Open Educational Resources (OER) potentially offer a means to address these issues by leveraging the redistributive capacities of the internet and the flexibility of open licencing to provide reusable educational materials to local students as well as to a wider audience.

However, the development of OER requires specific copyright management skills and time that lecturers may not be able to devote to creating or adapting educational materials openly. A couple of studies (Hodgkinson-Williams & Paskevicius 2013; Kleymeer, Kleinman & Hanss, 2010) have indicated that postgraduate student assistants, trained in copyright clearance and open licensing, can provide additional support to encourage lecturers to share their materials as OER.

This study sought to discern how students could best be employed in order to support OER production in resource-constrained institutions, by analysing a recent OER project conducted at the University of Cape Town. Rogers' (2003) Diffusion of Innovations framework, complemented by Okada et al's (2012) OER Reuse framework, was used to investigate how students acquire and adapt teaching materials into OER. The data informing this study was gathered through semi-structured interviews with five student adapters and four contributing lecturers, complemented by an artefact analysis of the ten completed OER. The qualitative data thus gathered was coded according to an expanded version of Rogers' (2003) Perceived Attributes of Innovation schema incorporating the additional Perceived Attributes outlined by Moore and Benbasat (1991) and key processes Okada et al's (2012) OER Reuse framework.

The findings indicate that the major hurdle to OER engagement came during the initial Acquisition process, while the subsequent Modification activity was less of a factor in ensuring a successful OER adaptation instance. The study also found that the students in this study were best placed to provide additional capacity and intellectual property management skills to lecturers already engaged in sharing OER, but are less able to act as change agents for Open Education. This suggests that students might best be employed as capacitating agents in future OER development projects.

## Declaration by candidate for the degree of Master in the Faculty of Humanities

I, **Thomas King**, of **110 2<sup>nd</sup> Avenue #5 Cape Town, South Africa** do hereby declare that I empower the University of Cape Town to produce for the purpose of research either the whole or any portion of the contents of my dissertation entitled 'A case study of student adaptation of Open Educational Resources at the University of Cape Town: A Diffusion of Innovations approach' in any manner whatsoever.

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## Abbreviations and acronyms

CEMCA	Commonwealth Education Media Centre for Asia
CET	Centre for Educational Technology
Change agent	An individual who introduces, facilitates or otherwise enables the spread of an innovation within a specific community
CILT	Centre for Innovation in Learning and Teaching
DHET	Department of Higher Education and Training
DoI	Diffusion of Innovations
DOI	Digital Object Identifier
ICT	Information and Communication Technology
ICTS	Information and Communication Technology Services
IEEE	Institute of Electrical and Electronics Engineers
IP	Intellectual Property
KNUST	Kwame Nkrumah University of Science and Technology
L1M1, L1M2, etc.	Lecturer who contributed the first set of materials adapted by Student 1
LMS	Learning Management System
LGC	Learner Generated Content
MIT	Massachusetts Institute of Technology
MOOC	Massive Open Online Course
NOUN	National Open University of Nigeria
OA	Open Access
OECD	Organisation for Economic Co-Operation and Development
OEP	Open Educational Practice
OER	Open Educational Resources
OER Adaptation project	Vice Chancellor's Open Educational Resources Adaptation project

QA	Quality assurance
ROER4D	Research on Open Educational Resources for Development
S1, S2, etc.	Student 1, Student 2, etc.
SaLT	Students as Learners and Teachers
SCAP	Scholarly Communication in Africa Programme
UCT	University of Cape Town
UNESCO	United Nations Educational, Scientific and Cultural Organization
Unisa	University of South Africa

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# 1. Introduction

## 1.1 Overview

Higher education institutions worldwide are grappling with increasing costs, but those in developing countries face the particular challenges of increasing student enrolment and throughput while maintaining cost-efficient service provision. The rapid growth in demand for and the increasing cost of tertiary education around the world, and the affordances of information and communications technology (ICT), has put pressure on educators and educational policy makers to conceptualise the provision of higher education services in innovative ways, leveraging the capacity of technology and the capacity, familiarity and willingness of students to use informational technology in their own learning. While certain forms of technology have been readily embraced, such as Learning Management Systems (LMSes), these tend to align relatively neatly with traditional teaching paradigms or have been driven by student demand (Dhalstrom et al., 2013). However, emerging educational technologies offer the potential for a shift from spatially-constrained, face-to-face education to technologically-supported, more 'open' models.

Digital technology and internet communication platforms can potentially act as a catalyst to enable new pedagogical practice (McLoughlin & Lee, 2008) by providing effective communication, curation and redistribution mechanisms that allow lecturers to connect with larger and more spatially-dispersed audiences. New approaches to education, including a move away from a "transmission model" (Shannon & Weaver, 1949) to a more dialogic transactional model (Barnlund, 1970), can be undertaken, and consequently new audiences outside of the traditional lecture-theatre/contact-based group can be reached. This capacity has contributed to the rise of what is termed 'Open Education' - the free, legal and open sharing of courseware and educational materials (Caswell et al., 2008).

The concept of Open Education developed from a number of simultaneous ideological and technological developments, emphasising and enabling transparency, wider participation and collaboration (Peters & Britez, 2008), and is strongly linked to other 'open' movements (such as Open Access (OA) and OpenSource software). Open Education is based on the idea that education should be free of barriers to access, whether these be on the basis of prior learning, cost, or geospatial location.

One of the central components of this new way of conducting education is a renewed focus on the intellectual resources used in the teaching and learning process. These can include textbooks, worksheets, presentations, collections of laboratory notes, study guides, and so forth. Previously limited to a face-to-face classroom environment, or electronic distribution in a limited fashion, these materials can now be shared more widely and be accessed by a larger and more diverse audience if created or adapted appropriately (Hylén, 2008). Collectively labelled under a number of terms, including learning objects, educational resources, teaching materials, instructional objects, knowledge objects, etc., these items are used in teaching environments to supplement face-to-face teaching methods. The affordances of educational technology, however, allow these objects to be shared beyond the temporally- and spatially-bound classroom environment and to acquire a utility of their own. Once made available online, ascribed with appropriate metadata, and licensed in such a way that promotes legal reuse, these items become what have been termed 'Open Educational Resources' (OER) (UNESCO, 2002). The use of OER has been posited as a way of providing greater

access to teaching materials (Hylén, 2006), contributing to broadening the reach of higher education (Santos, McAndrew & Godwin, 2008) and potentially enhancing student outcomes (The William and Flora Hewlett Foundation, 2015).

The OER movement also challenges deep-seated assumptions about the nature of competitive higher education provision, in which lock-down and proprietary notions of Intellectual Property (IP) protection are undergoing serious re-evaluation (Masterman, 2015). Several major institutions have adopted quite revolutionary approaches to the provision and distribution of their educational content with positive results, including Rice University, the Massachusetts Institute of Technology, the Open University in the United Kingdom and the University of Michigan, amongst others, which decided to release all or part of their course materials as OER (Kanwar et al., 2010).

The University of Cape Town (UCT), a contact-based higher education institution, began engaging with OER in 2007 with OpeningScholarship, a Shuttleworth Foundation-funded project hosted by the Centre for Educational Technology (CET) (Hodgkinson-Williams & Donnelly, 2010). Part of the project's broad mandate of exploring digital media and open dissemination models was a focus on the current status of OER in South Africa (Hodgkinson-Williams et al., 2013). Subsequent to the OpeningScholarship project a one-year project (OERUCT) also funded by the Shuttleworth Foundation was undertaken, in order to develop a directory<sup>1</sup> for UCT-produced OER, provide support for staff interested in sharing teaching and learning materials, and promote the visibility of UCT-produced OER. One of the primary outcomes of this project was the development of UCT's OpenContent directory, which was replaced with support of the Mellon Foundation in September 2014 with the OpenUCT<sup>2</sup> repository, where UCT's OER and OA scholarship is now profiled. A separate unit within the Health Sciences Faculty has been undertaking health-specific OER creation work since 2008, also using OpenUCT to showcase their materials<sup>3</sup>.

While these projects provided a portal or space for the profiling of OER, they could not directly incentivise academics to produce OER. As part of the initial Shuttleworth Foundation funding, a small grant was awarded to academics assisted by postgraduate students to convert a selection of their teaching and learning materials intended for public use into OER (Hodgkinson-Williams & Paskevicius, 2012a). The students' main role was to check for third-party copyright and replace it with suitably-licensed alternatives. In parallel, a Master's study investigated the development and dissemination of teaching and learning materials produced by the student volunteer organisation Students Health and Welfare Centres Organisation (SHAWCO) (Paskevicius, 2011). The SHAWCO materials were always intended to be shared publically but the students had not made their IP permissions clear enough for others to reuse legally (Paskevicius, 2011). The volunteer students' capability in producing openly-licensed materials also inspired the development of the OER Adaptation project.

Although these projects were successful in increasing the number of OER in the UCT OpenContent directory, they reached a relatively small audience of academics who had already heard of or engaged with Open Education in their personal capacities. The Centre for Innovation in Learning and

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<sup>1</sup> As this platform does not itself host content, the choice was made to use the word 'directory' rather than 'repository'.

<sup>2</sup> <http://open.uct.ac.za/>

<sup>3</sup> <http://www.healthedu.uct.ac.za/health-oer-open-educational-resources>

Teaching (CILT), formally CET, began to explore other methods of reaching academics who had not yet heard of OER but were producing and using quality educational material in the course of their normal teaching. Alongside departmental presentations to interested academics, CILT submitted a proposal to the UCT's Vice Chancellor's Strategic Fund to finance a pilot project using a different student-focused and bottom-up approach to OER advocacy. This project was named the Vice Chancellor's Open Educational Resources Adaptation project (hereafter, the OER Adaptation project).

Building on the lessons learned from the earlier SHAWCO and Physics Department projects, the OER Adaption project aimed to employ postgraduate students from all six faculties to increase the quantity of resources in the UCT OpenContent directory (which was subsequently migrated into the new DSpace repository, OpenUCT) and to determine if student involvement in OER production could support lecturers who might contribute OER but lack the time and skills to do so.

While there is currently a body of research on students as co-producers of teaching materials and OER (Keegan & Bell, 2011; Macintyre, 2016; Perez-Mateo et al., 2011; Watling, 2012), there is a relative dearth of information on students as adapters of existing, 'closed' teaching materials into open resources. The creation process is substantively different from the adaptation of existing content, in the skills it requires and the kinds of changes it enables. Thus, distinguishing between the two is valuable to determine at which point it is most productive to engage students in OER production.

The purpose of this study is to evaluate the success of the OER Adaptation project in its stated goals of supporting lecturers in sharing their teaching and learning materials with the help of student adapters. It will also test an assumption that students (in well-resourced institutions with sufficient bandwidth), immersed in online culture and used to accessing information electronically, can assist in the sharing of online educational materials. The study will also examine on whether the adaptation work performed by students constituted a qualitative change to the objects and what role the students played as OER enablers. It will also analyse if this adaptation work constitutes a positive change, i.e. if the changes to the materials improve their quality, if the students were effective in reducing the time burdens on lecturers, and if the experience of employing student adapters encouraged the participating lecturers to engage further in OER.

## 1.2 Research problem

Educational institutions globally are experiencing challenges with the scale and scope of higher education. In the Global South specifically, institutions face pressure to dramatically expand their formal student intake and also to engage with lifelong learners while dealing with limited budgets.

OER is potentially a useful response to this issue, but its production is currently dominated by well-resourced Global North institutions (Krelja Kurelovic, 2016). Aside from community-driven models, most successful OER initiatives require funding and institutional support (OECD, 2015; Wiley, 2007), which under-resourced institutions may struggle to provide. In an institutional policy environment that permits or encourages OER but cannot yet support it with resources, the assistance of students may be a way to increase the throughput of materials adapted into OER while maintaining or even enhancing their quality.

This study seeks to address the question: “How well did the OER Adaptation project succeed in its stated goals of furthering the OER agenda at UCT through supporting lecturers in sharing their teaching and learning materials?”

This evaluation will focus around four sub-questions:

- 1) What do student adapters identify as the key factors in lecturers’ willingness to engage in OER adaptation? [RQ1]
- 2) What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]
- 3) What changes to lecturers’ teaching and learning materials were made by the students, and in what ways did these changes influence the quality of these materials? [RQ3]
- 4) To what extent did the OER Adaptation project optimise students’ adaptation of lecturers’ teaching materials? [RQ4]

The first three questions focus on three different subjects (students, lecturers and artefacts respectively) and deal with advocacy, power relations and quality. Thus, they require different analytical frameworks to best acquire and interpret the information produced by this research. The frameworks chosen in this research are outlined in Chapter 3 – Conceptual and Theoretical Frameworks. The final question (RQ4) addresses the original aim of the OER Adaptation project in terms of the role of students in an institutional OER strategy.

### 1.3 Rationale and Site Selection

Internationally, English-language OER production is driven by well-resourced institutions, primarily in the Northern Hemisphere, such as the University of Michigan, the Massachusetts Institute of Technology, the Open University, Rice University, and others (Kanwar et al., 2010). These universities typically have a strong mandate to produce OER, supported by resources specifically earmarked for the task (Rodgers, 2011), allowing them to produce both high quality and a large number of OER. Less well-resourced institutions, or those with nascent OER programmes, may desire to engage with producing OER (particularly in subject areas in which the institution specialises, or subjects of local importance), but do not have the institutional frameworks or resources to develop high-quality materials. Without these resources, academics need to find innovative ways to produce OER while minimising the time and financial costs involved.

UCT is a medium-sized predominantly contact institution in South Africa. Over 25000 students attend UCT, with nearly one third of these being postgraduate students. It attracts a considerable number of international students, many from Africa, but also from international institutions on study-exchange programmes, especially from the United States, Canada, and China. UCT is one of the most highly-ranked tertiary institutions in Africa and 126<sup>th</sup> in the world (Times Higher Education, 2016) and is one of the most prolific producers of research amongst African tertiary education institutions (Trotter et al., 2014). UCT provides an interesting research site due to its organisational structure, its IP policy, and its position in Africa and internationally as a well-regarded, research-intensive institution.

UCT signed the Cape Town Open Education Declaration in 2008 and the Berlin Declaration in 2011, committing itself to engage Open Education and OA as key institutional strategies (Czerniewicz, 2014). However, many of the Open initiatives within the institution have been funded by external



funderson, notably the Shuttleworth Foundation and the Mellon Foundation. Only since 2013 has the institution taken Open Education into budgetary considerations, through the OER Adaptation project and incorporating the OpenUCT repository institutionally by appointing a library-based repository manager to oversee its operation.

Many of the organisations that have engaged with OER production have followed a centralised, top-down approach (Jisc, 2014), and the primary international approach to OER production emphasises integration with curriculum and institutional (possibly governmental) long-term funding. As Jisc's report on OER for senior managers states:

*Institution-led projects tended towards the conclusion that OER release should be incorporated into existing strategies and policies to signal that OER release and use is an integral part of existing activities, an approach that supports ongoing sustainability and embedding into practice. Most institutions involved in the programme had to reconsider a range of existing strategies to incorporate OER release, including IPR and copyright policies, teaching, learning and assessment strategies, access and widening participation, quality assurance policies, IT strategies and marketing strategies.*

(Jisc, 2014, p. 1)

UCT's more decentralised organisational context provides an interesting contrast and requires a different kind of strategy to encourage academics to produce OER. In McNay's (1995) Four Culture model of universities, UCT has been categorised as a "collegium" (Czerniewicz, 2012), due to its flexible managerial structure, the high levels of independence of its faculties and individual scholars, and the distributed, individualistic workflows that characterise the university's day-to-day operation. In such a collegial system, peers and faculty management play the greatest roles in influencing academics' behaviour, as well as the "frame of reference set by peer scholars in the international community" (McNay, 1995, p. 106). Faculties have substantial powers to dictate policy, including separate performance evaluation systems and research funding disbursement. Central management, comparatively, is less important, and staff do not necessarily comply with centralised mandates (Trotter et al., 2014).

UCT also has an interesting IP policy that empowers lecturers to produce their own OER (UCT, 2011). This IP policy explicitly names academics as the copyright owners of all research and teaching materials they produce, with the caveat that UCT retains "a perpetual, royalty-free, non-exclusive licence to use, copy and adapt such materials within UCT for the purposes of teaching and or research" (UCT, 2011, p. 15). Academics are thus free to upload their materials to the hosting site or portal of their choice without explicit permission from university administration. However, unlike many of the major OER producing institutions (MIT, University of Michigan, the Open University) there is no policy that mandates OER production, although UCT does support it in principle. OER production is not incentivised in any of the faculty or departmental performance appraisal processes, or through direct funding. Fortunately the institutional IP policy enabled CET (later, CILT) to run a series of projects in order to develop the OER agenda within the institution.

#### *Centre for Innovation in Learning and Teaching*

The primary unit within the university that engages in Open Education advocacy, OER support and other Open Education initiatives is CILT. CILT is a department within UCT's Centre for Higher Education Development (CHED), which is not a typical academic faculty in that it does not award

degrees itself, though it does teach and supervise on certain postgraduate programmes in conjunction with other faculties. CILT supports teaching and learning within the institution through academic development programmes, writing centres, and other academic support functions. CILT itself focuses on innovation in tertiary education, and is divided into three clusters:

- The Learning Technologies cluster, which focuses on supporting teaching at the university through the maintenance of the Sakai Open Source Software LMS platform (called Vula at UCT) and supporting staff in their use of technological tools for teaching. Vula is used as a repository by some lecturers as the platform allows for open licensing and public access to materials.
- The Curriculum and Course Design cluster, which focuses on supporting academics by providing expertise on course and curriculum design. This unit is responsible for developing Massive Open Online Courses (MOOCs) and making them available as OER wherever possible (Czerniewicz et al., 2016).
- The Staff Development cluster, which focuses on staff workshops covering a wide range of topics from IP to the effective incorporation ICT in individual scholars' pedagogy. This is the cluster which hosted the VC's OER Adaptation project.

The department also hosts externally-funded research projects regarding scholarly communication and open education, including the completed Scholarly Communication in Africa Programme (SCAP) and the ongoing Research into Open Educational Resources for Development (ROER4D) project. Critically for this study, however, was the fact that staff from CILT were responsible for driving the Open Education agenda at the institution.

As a member of CILT, I have been involved in numerous OER production activities. These include consultations with individual academics interested in producing OER and involvement in the OER Adaptation Project as a coordinator of a team of students tasked with seeking out and acquiring high-quality teaching materials for adaptation into OER. I have also consulted for the institutional MOOCs development project. As this new form of engagement in Open Education requires an investment of time, an already-constrained resource in higher education, I want to understand what role postgraduate students can play in supporting, capacitating or enhancing the quality of OER initiatives.

#### 1.4 Theoretical framework

This study examines the changes made to teaching and learning materials to transform them into OER by student adapters. As such it constitutes an educational innovation, and thus I have chosen to adopt Moore and Benbasat's (1991) modification of Rogers' (2003) Diffusion of Innovations (DoI) framework as my primary theoretical framework. The DoI framework seeks the process of how innovations (in this case, OER) succeed or fail to be adopted by a community. For further analytical depth I have also chosen to use Okada et al's (2012) OER Adaptation framework, in order to deepen the artefact analysis component of the study.

#### 1.5 Overview of the research design

This research has adopted a case study methodology (Cohen, Manion & Morrison, 2007), focusing on the VC's OER Adaptation programme as an example of a pilot project involving students in the process of supporting OER production at UCT between 2013 and 2014.

The research draws its primary data from three sources: semi-structured interviews conducted with five student adapters involved in the OER Adaptation project; structured interviews with staff members who contributed their teaching and learning materials for adaptation into OER; and an artefact analysis of the OER produced through the course of the project.

Transcripts of the interviews were produced and referred to the participants for error-checking, according to Hagens et al's (2009) model of Interviewee Transcript Review. The transcripts were compared and contrasted with the results of the artefact analysis in order to triangulate and verify the data received and develop a holistic perspective of the quality changes.

Both human subjects and artefacts were included in this research. This study complies with the UCT Code of Ethics, the Humanities Ethics Guide and the School of Education's Ethics Policy. Approval for this study was given by the Research Ethics Committee during the proposal stage.

### 1.6 Significance of the study

OER practice is not yet mainstream and much of the existing teaching and learning content incorporated into existing syllabi remains closed. Given the already constrained time and energy of teaching staff in these pressured contexts, and the absence of incentives to rework their existing materials into OER, there is room for innovative approaches that incorporate senior students as key actors in the OER adaptation process. This study attempts to explore what value incorporating students as OER adapters can provide institutions developing OER programmes. This area of study could be applicable to institutions that do not have the resources for sustainable, long-term OER projects, but are seriously considering converting their existing wealth of teaching materials into OER.

### 1.7 Thesis structure

*Chapter 1* consists of an overview of the background and rationale of the research. It identifies the research problem and outlines the research questions, introduces the theoretical models and concepts that underpin this area of study, and describes the research methodology and process (including ethical and validity considerations).

*Chapter 2* analyses relevant literature on the quality of OER, from Open Education in general to the progression and development of OER as a concept and practice (including the legal, pedagogical, technical and financial aspects of OER production). This chapter also introduces the theoretical models underpinning this study and other similar studies, and includes an explanation of the choice of the analytical framework selected for this research.

*Chapter 3* presents the Conceptual and Theoretical frameworks used, and justifies them in this particular research context.

*Chapter 4* presents and justifies the research methodology. This includes site and participant selection, the choice of research instruments and methods, the relation of these instruments to the theoretical and analytical framework, the data analysis, and a discussion on research ethics and validity.

*Chapter 5* analyses the data according to the research questions.

*Chapter 6* discusses the findings presented in Chapter 5 according to the conceptual and theoretical frameworks introduced in Chapter 3.

*Chapter 7* provides the summary of the research findings, including the limitations of the study, and recommends areas for future research.

## 2. Literature and contextual review

### 2.1 Introduction

The term ‘contact-based higher education’ may conjure up images of lecture theatres, tutorial groups or practical laboratory work, spatially-constrained to university property and restricted to the well-educated, well-resourced elite. However, higher education institutions have also been involved for many years in educating public and civil society through a variety of social outreach programmes, public lectures, discussion forums, and public opinion pieces. Contact universities can enhance the impact and scope of their public engagement by providing access to university-produced educational materials (Scanlon, 2014). The affordances of information communication technologies (ICTs) have only broadened the capacity of higher education institutions to engage with audiences far broader than their student body, but facilitated engagement with their current students as a supplement to or without the need for face-to-face instruction (Scanlon, 2014).

Pedagogically, educators are increasingly aware that students with access to appropriate ICT infrastructure supplement their formal education in innovative ways (Dahlstrom et al., 2013). Given access to course materials, students can learn at their own pace, engage with other students about their courses through social media platforms, and continue to learn even if physically not present (for whatever reason) at their higher education institutions (Ally & Samaka, 2013). While distributing course materials has been possible for decades, digital technology offers the potential benefits of reduced distribution costs, easy and free replicability, and persistent curation (Scanlon, 2014; van der Wurff, 2008).

Tertiary educators are simultaneously under pressure to professionalise their practice by improving the quality of their teaching (Leudekke, 2003; McAleese et al., 2013). Access to materials produced and used by other scholars can assist lecturers in enhancing the quality of their own materials (Atenas & Havemann, 2014; Orr, Rimi & van Damme, 2015).

All of the affordances of digital learning, however, require an increased focus on the individual educational items – presentations, audio clips, videos, workbooks, test papers, and so on – used in tertiary education environments. They also require that attention be paid to their form and structure to cater for a learning environment quite different from the classroom (Bonk & Dennon, 2003). Finally, to reach the broadest possible audience, they need to be licensed, described and stored in such a way that promotes their accessibility and re-use (Caswell, Jensen & Wiley, 2008). Engaging in OER creation is one way to develop materials that satisfy the pedagogical and quality needs of the traditional classroom while also allowing these materials to be shared widely and be accessed by anyone.

This chapter focuses on reviewing the core concepts underlying Open Education, concentrating on OER and its associated concepts and practices. This includes IP and copyright in open education; pedagogical practices in open, digital education; quality concerns and quality assurance processes; the costs and benefits of producing OER; and curation and metadata. I then explore the roles that students can play in the adaptation of existing materials into OER by providing support, time and copyright clearance expertise, incentivising lecturers to share their materials openly.

## 2.2 Open Education

Demand for higher education, especially in developing countries, is growing (Geith & Vignare, 2008; van Deuren, 2013) while becoming more expensive (Altbach, Reisberg & Rumbley, 2009). Investing in new campuses or expanding existing ones requires a great deal of capital in a time when universities are under considerable pressure to optimise efficiencies (Baert & Shipman, 2005; Ramphoelet, 2000). Simultaneously, university rankings are highly important and visible markers of the perceived 'quality' of an institution (Marmolejo, 2015), and form a key part of marketing institutions to a highly mobile, status-conscious student body.

One solution to the discrepancy between this demand for tertiary education and the capacity of contact learning institutions is distance education, such as provided by the University of South Africa (Unisa). In South Africa, the Department of Higher Education and Training (DHET) delegated certain forms of educational provision to specific tertiary education institutions. Unisa had a "relative monopoly" (Unisa, 2014, p. 1) on the provision of distance education, until the publication of November 2013 White Paper for Post-School Education and Training permitted other tertiary education institutions to engage in distance learning programmes (DHET, 2013). Although Unisa reaches a much larger student cohort than the other tertiary education providers in South Africa, with nearly a third of the total higher education enrolment in 2013, total enrolment still falls short of demand in South Africa (DHET, 2014).

Massification of higher education presents problems for ensuring the quality of the educational experience for both contact and distance education institutions (Grobler, 2013), and moreover does not necessarily address other aspects of post-school learning, such as lifelong learning and personal professional development. The pressure to innovate the means and quality of education, as well as an ideological commitment to education as a public good, has led some scholars to advocate for 'opening up' education (Smith & Casserly, 2006). 'Opening up' can refer to increasing student access to materials while off campus (Walton, Childs & Blenkinsopp, 2005), increasing non-student participation in higher education by providing free access to courseware to members of the public (Miyagawa, 2010), and increasing the quality of educational material by allowing other scholars to use, adapt or compare their own work to publicly-available materials (Leudekke, 2003; McAleese et al., 2013). The broad term for all of these different but interrelated concepts and practices is 'Open Educational Practice' (OEP).

### 2.2.1 Open Educational Practices

OEP is informed by an ideological perspective (why make education open?) and practical elements (what is involved in Open Education, and what knowledge, skills and resources are required in this process?). Some of the core concepts involved in OEP include:

- The different forms of OER, and their implications for individual and institutional investment of time, resources and infrastructure;
- The costs, benefits and challenges involved in producing digital and online materials;
- The pedagogical practices in creating digital and freely-accessible content;
- The IP and copyright issues involved in creating and sharing content online;
- The curation and long-term storage and accessibility of these materials.

OER, as the material embodiment of OEP, are underpinned by all of the ideological and practical elements listed above. This study focuses on the issues that arise when students and scholars

engage in creating new, open versions from existing materials that lecturers use in their teaching. These new materials, referred to as OER, require a substantive shift from traditional models of knowledge production and dissemination. They also require the development of new competencies, substantial investments of time, and even re-envisioning pedagogy in the light of a (potentially) international, multilingual and educationally-diverse audience (Beetham & Sharpe, 2013).

### 2.2.2 History of Open Educational Resources

While there is now relative consensus on the terminology used to describe openly-licensed, free online content, the early development of the concept was undertaken by several scholars from different fields working largely in isolation.

One of the early popular terms, ‘learning object’, first used in 1994 (Hodgins, 2002), became a standard term for referring to individual, modular learning items designed to be combined with others to form complex learning resources. While not the only term used (see below), this term is indicative of many of the themes and qualities of the new digital objects that were beginning to appear in education. A plethora of definitions for learning objects arose, with varying levels of complexity and with different implications for their creation, use and curation. For example, the Institute of Electrical and Electronics Engineers (IEEE) defines learning objects as “any entity, digital or non-digital, that may be used for learning, education or training” (2002, p. 5). Educational technologists Chiappe et al defined them as “digital self-contained and reusable entit[ies], with a clear educational purpose, with at least three internal and editable components: content, learning activities and elements of context. The learning objects must have an external structure of information to facilitate their identification, storage and retrieval: the metadata” (2007, p. 675). Wiley defines it as “any digital resource that can be reused to support learning” (2000, p. 23), and educational technologists Rehak and Mason’s definition of a learning object is “a digitized entity which can be used, re-used or referenced during technology-supported learning” (2003, p. 21).

In the early learning object discourse, it was believed that objects could be combined automatically by aggregating software to create modules or entire courses that could be used for a range of learning objectives (Wiley, 2008). However, the limitations of artificial intelligence with regard to the semantic content of learning objects, as well as poor use of metadata, non-interoperable formats, context-specific learning objectives, and other structural issues re-emphasised the need for educators to select materials and rework, add or adapt content to fit their specific needs (Pamish, 2004).

As scepticism of the ability of existing software to ameliorate these problems grew, the need for a broader term that emphasised lecturer and learner agency over computer-driven aggregation led to numerous different organisations and individuals attempting to define the concept of shareable, re-usable teaching materials. These included “open content” (Wiley, 1998), “digital learning resources” (Margaryn & Littlejohn, 2008) and “reusable digital learning resources” (Leacock & Nesbit, 2007). In 2002, the United Nations Educational, Scientific and Cultural Organization’s (UNESCO) 2002 Forum on the Impact of Open Courseware for Higher Education in Developing Countries brought together many of the different organisations and bodies engaging with the issue and coined the term “Open Educational Resources” (OER) to describe educational content that was openly available, and licensed in such a way as to promote re-use. UNESCO defines OER as:

.... any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them. OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation.

(UNESCO, 2014: 1)

In essence, an OER is a teaching and learning resource created and licensed in such a way that promotes some or all of the following: free and easy retention, reuse, revision, remixing and redistribution – classified by Wiley (2014, p. 1) as the five R's of openness (Table 1).

**Table 1: Wiley's 5 R's of Openness (Wiley, 2014, p.1)**

Form of openness	Practice
Retain	"the right to make, own, and control copies of the content" (e.g. storing a copy of a particular teaching resource on a personal website, institutional or subject repository)
Reuse	"Use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)"
Remix	"[C]ombine the original or revised content with other open content to create something new (e.g., incorporate the content into a mashup)"
Revise	"[A]dapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)"
Redistribute	"[Share] copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)"

In order for it to fulfil these criteria, an OER must:

- Be accessible online to a non-defined audience; i.e. the object must not sit behind barriers, such as logins, paywalls, or inaccessible repositories.
- Be licensed in a way that unambiguously states the ways users can use the resource (Atkins et al., 2007), and ideally in such a way that allows users to adapt the object in ways that suit their specific learning objectives.
- Be available in a variety of formats, including non-proprietary formats such as Open Office.
- Contain sufficient metadata to be findable using normal searching tools (Sheppard, 2009).

There are varying "degrees of openness" (Hodgkinson-Williams & Gray, 2009) – from fully reusable, remixable and revisable to more conservative licensing that primarily promotes visibility and redistribution.

In an academic context, given the concerns of many academics around losing control of their IP (Ngimwa & Wilson, 2012; Hylén, 2006; Larson & Murray, 2008), a less restrictive definition of openness has been adopted by large institutions such as MIT in the Non-Commercial provision in the Creative Commons license they have chosen to adopt for their Open Courseware (Stacey, 2007).

The development into an unbound, digital educational resource, however, may require a substantial transformative process in order to translate the object from one which makes sense in a specific learning environment into an 'agnostic' resource, i.e. not context- or location-specific. This may require pedagogical and structural changes, which can be minimal if the resource is being shared



with contact students who have already engaged with the materials, but quite substantial if the material is being shared to a wider audience. For example, this development requires new workflows, in which the practices such as checking copyright and ascribing metadata – which have not traditionally been part of academic practice – become foregrounded. This requires substantial investment by some component of the academic system, and different institutions have tackled this issue in a variety of ways, with varying levels of success (Kleymeer, Kleinman & Hanss, 2010). Before such investment can be made, however, key actors within the system need to be convinced of the potential benefit versus the cost of adopting open educational practices.

### 2.2.3 Institutional approaches to OER production

A number of institutions have engaged in OER production, but there is no one-size-fits-all approach; different institutional cultures, policy structures and the availability of financial resources influence how institutions can create OER.

#### *Massachusetts Institute of Technology – MIT OpenCourseware*

The Massachusetts Institute of Technology (MIT) embraced Open Education comprehensively in 2002 by announcing that it would make all of its course materials openly available under a Creative Commons Non-Commercial Share-Alike license, offering 32 courses<sup>4</sup>. The stated purpose of this radical opening of MIT's IP was to improve teaching practice and increase collaboration with other scholars (Vest, 2004). Over the next decade MIT continued to upload materials, supported by funding from the Hewlett Foundation and from MIT corporate<sup>5</sup>. In 2005, MIT OpenCourseWare and other leading OER projects came together to form the OpenCourseWare Consortium (renamed in 2014 to the Open Education Consortium), which hosts thousands of courses.

The MIT OER engagement was built on an institutional mandate driven by university management, with strong representation from the faculties (MIT, 2016).

#### *Rice University – Connexions*

Connexions is an open platform hosted by Rice University that offers a space for a huge range of content. It is not limited to higher education and is authored by members of the community, including a large number of university lecturers. The platform allows for collaborative co-authoring of OERs and publishes its materials under a Creative Commons Attribution-Only license. Content is organised into small modules that can be combined to form larger courses (Baranuik, 2008).

Connexions is unique in that while Rice University hosts the platform, it does not assert great control over the materials produced, rather accepting materials from outside and providing a space where they can be created and combined with other materials.

Rice University's distributed, peer-creation method reports low costs per Big OER created (Weller, 2010) but the production process requires substantial investment of academics' time.

#### *University of Michigan – Open.Michigan<sup>6</sup>*

Open.Michigan is the collective term for a number of different open initiatives at the University of Michigan. One of the core components of Open.Michigan is the OER project, which draws from a

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<sup>4</sup> <http://ocw.mit.edu/about/our-history/>

<sup>5</sup> <http://ocw.mit.edu/donate/our-supporters/>

<sup>6</sup> <http://open.umich.edu/about.html>

number of faculties and units within the institution. These materials are released under a range of Creative Commons licenses.

Open.Michigan contributes to international OER innovation through the dScribe process, wherein students, in conjunction with faculty, work to collect and adapt existing teaching materials into OERs. This process is closely tied with the University of Michigan's Sakai-based LMS and employs software tools that help scan and process copyright problems with the materials, as well as tracking student-lecturer communications. The dScribe process also formed the basis of the first student adaptation process at UCT, and was further adapted for the OER Adaptation project.

#### *Utah State University's OER Programme<sup>7</sup>*

Utah State University chose to engage with OER in a similar fashion to MIT, but did not have the institutional mandate or resources to require lecturers to make their courseware open. Instead, the institution formed a unit with funding from the Hewlett Foundation that worked in a decentralised fashion, gathering content and performing copyright clearance on the materials. In 2010, however, funding for the programme ran out, and the institution was forced to end the project.

#### *The Open University - OpenLearn*

The Open University began OpenLearn in 2006 with a grant from the Hewlett Foundation (Gourley & Lane, 2009), and has since then released over 8000 hours of study material, and includes BBC broadcasts produced by the Open University, as well as extensive video and blogging content. OpenLearn is supported by the Open University's commitment to Open Education, and, like the above examples, does not require prior qualification or registration to access.

#### *The National Open University of Nigeria*

Since August 2015, the The National Open University of Nigeria (NOUN) has been sharing course materials from 40 of its courses as OER, and by 2017 aims to share 50% of its curriculum as OER.<sup>8</sup> NOUN's OER commitment is buttressed by its dedicated OER unit<sup>9</sup>, active since the last quarter of 2014, and by a strategic commitment to share all newly-developed course materials as OER in the future.

#### *Kwame Nkrumah University of Science and Technology*

The Kwame Nkrumah University of Science and Technology (KNUST), cognisant of the role of incentivisation in academics' choice to engage in OER production, developed an OER policy between 2009 and 2011 that supported OER production at the institution through rewarding the development of OER courses by the same mechanism it employs for rewarding the publication of peer-reviewed journal articles.<sup>10</sup> This policy also provided for technical support for contributing academics through the appointment of an OER coordinator, with additional support provided by the Department of Communication Design.

These OER initiatives, with the exception of the discontinued Utah State University programme, shared a similar strategy: an educator-led process backed by OER-specific mandates. However, not all institutions have similarly strong mandates that can directly influence lecturers into producing

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<sup>7</sup> <http://ocw.usu.edu/>

<sup>8</sup> <http://oer.nou.edu.ng/articleabuja.html>

<sup>9</sup> <http://oer.nou.edu.ng/>

<sup>10</sup> <http://www.oerafrica.org/resource/policy-development-and-use-open-educational-resources-oer-knust>

OER. While they may have policies that allow for or even support OER creation, without compulsory mandates (that are reflected in performance appraisal or have some other sort of enforcement mechanism), these institutions may need to employ different incentive strategies in order to ensure their OER agenda is productive.

#### 2.2.4 Forms of OER

The way in which OERs are organised is important, as this affects the production costs (financial and time expenditure), the value to user, and storage and metadata concerns. Weller (2010) classifies OER into two broad categories:

Big OERs are institutionally generated ones that arise from projects such as OpenLearn. These are usually of high quality, contain specific teaching aims, presented in a uniform style and form part of a time-limited, focused project with a portal and associated research and data.

Little OERs are the 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, 2010, p. 1)

Big OERs require departmental, faculty or institutional buy in, as they require substantial investment of resources, a dedicated portal, and must be designed in such a way that they support a specific teaching aim. This likely involves coordination with other resources, including uniformity of appearance and style. This investment may not be sustainable in the long term (Downes, 2007). Much of the initial Big OER development occurred via grants from the William and Flora Hewlett Foundation (Wiley, 2007b), consisting of both direct financial costs (employment of students or staff as OER adapters) and indirect costs to the institution and/or individuals concerned (time and energy of lecturers in adapting their own materials, or working with others and vetoing final OERs). If these costs are not acknowledged and catered for in some sort of departmental, faculty or institutional policy, sustainability problems are likely to arise (Miao, Mishra & McGreal, 2016).

Little OER, by contrast, can be produced without substantial managerial input; with minor adaptation work, “[t]hese types of resources can be seen as near-frictionless outputs from standard academic practise” (Weller, 2010, p. 4). While Weller’s statement may be overstating the simplicity of the production process (see ‘Producing and Adapting OER’ below), it does nevertheless highlight that Little OERs exist, albeit in a natal form, as part of the teaching materials produced as a natural product of higher education. As they do not need to be linked into a broader teaching framework, they can be produced or adapted from existing teaching materials by individuals or small groups. The abundance of free third-party hosting platforms (such as Slideshare, Figshare, etc.) allows producers to upload their content quickly and easily to a portal of their choosing. Little OERs also avoid some of the sustainability problems of Big OER. The lower investments in time and resources, especially in coordinating a body of diverse resources according to a unified format or appearance, means Little OERs are less at risk from resource constraints.

Big OERs are more likely to require substantial pedagogical considerations as they are designed specifically for an online audience. Little OERs are less likely to require this kind of conceptualisation, as they are often adapted from existing teaching materials used in contact/face-to-face instruction.

However, a single presentation may very well be linked to a larger body of presentations and associated worksheets, questionnaires, image sets, etc.

### 2.2.5 Gratis vs Libre OER

The required degree of the ‘openness’ of an educational resource in order for it to be classified as an OER is subject to considerable debate, which mirrors a similar discussion in the OA field, namely the distinction between so-called ‘Gratis’ and ‘Libre’ materials:

- *Gratis* OA (and OER) refers to materials that are publicly accessible and viewable without charge or access barriers.
- *Libre* OA (and OER) refers to materials that are publicly accessible and viewable, without charge or access barriers, and with licensing provisions that allow for certain forms of reuse. (Swan, 2010).

This distinction is important due to the unequal distribution of information, especially amongst academics, about what ‘openness’ in education means (and requires in terms of their workflow). Articulating the distinction is also a challenge in communicating about openness in education, especially given the ubiquity of apparently-open online materials on the Internet.

### 2.2.6 Benefits of OER

The primary driver of the Open movement in general, and Open Education in particular, is the perceived efficiency improvements of ‘open’ versus ‘closed’. OpenSource software has been claimed to be better than proprietary products (Schmidt & Porter, n.d.; Kuan, 2003). OA scholarly publications have been demonstrated to reach a wider audience (Swan, 2010) and reduce library costs (Getz, 2004); and Open Data and Open Government initiatives propose to increase the quality and transparency of research and governance (Janssen et al., 2012). Due to the relative youth of OER, the evidence base for its benefits is still under development; as such, current studies indicate that the majority of research on the impact of OER is happening in the Global North (Allen & Seamon, 2012; Carson et al., 2012), and the research that is occurring in the Global South is focused mainly on specific projects (Wolfenden et al., 2012; Harley, 2011; Hodgkinson-Williams et al., 2013). Regardless of location, the benefits of OER can broadly be divided into pedagogical benefits and financial benefits.

#### 2.2.6.1 Pedagogical benefits

Improved access to educational materials has been conjectured to improve students’ learning experiences by allowing teachers to draw on international scholarship to enhance their teaching materials and to compare and contrast their situation to global teaching styles (Petrides et al., 2013). Access to OERs is also hypothesised to improve the quality of teaching materials through comparison and exposure to a wider base of existing resources (Caswell et al., 2008). It is also posited that students will benefit from having access to teaching materials without specific lecturer provision (Hodgkinson-Williams, 2010; d’Antoni, 2009), subject to local ICT infrastructural capacity. By implication this could lead to a shift from the role of teachers “from material production to mentorship and facilitation” (Ossiannalsson & Creelman, 2012, p. 3), though this would require a substantial reconceptualisation of the role of the educator-student relationship in higher education, as well as adapting the teaching and learning materials into ‘stand-alone’ or self-explanatory forms.

### 2.2.6.2 *Financial benefits*

A substantial amount of lecturers' time (and thus educational expenditure) goes into the development of teaching materials (Miao, Mishra & McGreal, 2016). Access to high quality OERs could reduce the time spent on developing materials (d'Antoni, 2009; Lane, 2008), and so free up more time for lecturers to perform research or to add local contextual details to the materials to improve learning outcomes. This is aside from the obvious advantages of teaching materials being made open; any expenditure that would go towards purchasing educational materials could instead be used for other purposes. Given the high cost of textbooks (Fairchild, 2004; Allen, 2013), OERs and open textbooks in particular could offer cost-effective solutions for educators and students who cannot afford the current prices (Hilton & Wiley, 2012).

However, studies (Ngimwa & Wilson, 2012) have shown that the work needed to adapt OERs to suit local learning outcomes is not insubstantial. As the majority of OER is still produced by the Global North (Mulder, 2008), albeit with the intention that they could be used in the Global South, teachers may need to contextualise OER content for local language, idiomatic and pedagogical considerations, constituting an appreciable investment of their time.

### 2.2.7 *Challenges of OER*

The act of openly sharing teaching materials carries with it an implicit assumption that the creator has redistribution rights over all content contained within, whether they are images, embedded video, or audio clips. However, in the production of teaching materials intended for classroom use, academics may use relatively simple searching and harvesting techniques to gather appropriate third-party copyrighted items, without necessarily checking the rights provisions of these items. In a classroom environment, this is usually not problematic, but becomes an issue when an object moves into a digital realm and becomes widely accessible and downloadable.

#### 2.2.7.1 *Intellectual Property and Copyright*

The communication of ideas has always been at the heart of the academic enterprise. Scholars pass on information to their students, collaborate with their local and international peers to develop new lines of enquiry, publish their own findings to grow the body of knowledge in their own disciplines, and enhance existing publications through offering critical feedback and commentary.

The role of communicating these results has taken many forms, but in recent decades research publication (in the form of books, book chapters and especially journal articles) has become critically important, both as a means of reaching wide audiences and as a metric for judging individual academics' competence and reputation (Plume & van Weijen, 2014). The work involved in publication has not typically been performed by academics themselves, but rather third-party academic publishers (such as Elsevier, Wiley and Taylor & Francis) who take responsibility for the editorial, stylistic and marketing decisions around academic material, and also in many cases taking ownership of the copyright of those materials. This applies for both published research and teaching materials, such as textbooks, which are also largely produced by commercial publishers such as Pearson and McGraw-Hill.

Copyright, while differing across countries, generally contains a broad set of rights that pertain to the creator of an original piece of work. In South African law, copyright is an exclusive right automatically granted to the author upon the production of an original creative work (which includes teaching materials) which grants the author exclusive rights to:

- Produce copies of the work
  - Redistribute the work via any media
  - Create derivatives of the work
  - Perform or sell the work publicly
  - Transfer or sell these rights to others
  - Grant permission for others to use the work in specific ways.
- (South African Copyright Act, 1978)

Copyright violations are “ubiquitous in academia” (Taylor, 2013, p. 1), given the availability of free (to view) content on the internet and a common belief of ‘if it’s available, I can use it’. Adding to the issue is the generally low awareness amongst academics in many developing countries of IP laws (Sart, 2014; Anderson et al., 2014) and ignorance about how many publishing agreements actually require the absolute transfer of copyright from author to publisher, which in extreme cases can legally forbid an academic from sharing their own work (Open Oasis, 2010). This legal prohibition against sharing stands in opposition to an academic ethos that encourages the free sharing of information and knowledge.

There are provisions in many copyright systems that do allow some level of use of otherwise strictly copyrighted materials. A common clause in international law, known as Fair Use or Fair Dealing, allows academics to use third-party copyrighted items for non-commercial, instructional purposes without requesting permission from the authors (SA Copyright Act, 1978 ss. 12). Fair Dealing, however, requires that an object be used in a limited fashion, and that it is not redistributed. When an object is made open, the author, by giving permission for the created object to be redistributed, also allows for all the sub-components comprising the object to be redistributed. Unless all the sub-components are licensed in such a way that allows for redistribution, this is a breach of copyright law.

#### *2.2.7.2 Open Licensing*

Increasingly, both producers and users of content that is free-to-view (i.e. easily available) are looking to alternatives to full copyright and the difficulties around Fair Dealing. Following the example of the OpenSource<sup>11</sup> movement, a number of alternate licensing systems have been developed that specify how materials can be used without requesting permission from the author. These include:

- Creative Commons licenses
- GNU Free Documentation licenses
- Open Data Commons licenses
- The Open Government licenses used in Canada and the United Kingdom
- Free Art licenses

While each licensing system has specific provisos on what is permitted on the user’s side, they are all based on the principle of explicitly stating how an object can be used without requiring permission from the author. The most widespread of these licensing systems, and the one used in this study, is the Creative Commons license.<sup>12</sup> Consisting of six standard sub-licenses, each intended to be understandable without a thorough background in IP law, the Creative Commons licensing suite is

<sup>11</sup> <https://opensource.com/resources/what-open-source>

<sup>12</sup> <https://creativecommons.org/>

used throughout OA publishing and on a number of popular internet information sites, most prominently by Wikipedia.

In the educational context, works licensed under open licenses (most commonly Creative Commons) offer academics a legal way to use third-party materials in their learning objects, and redistribute them as OERs (provided they conform to the licensing provisions attached to the third-party materials they incorporate). Numerous 'Open' portals exist that host or refer only to openly-licensed materials, and numerous search engines allow users to filter search results by license. These tools and portals allow academics to use only open materials in their materials development process, facilitating the release of the completed learning object as an OER without legal problems.

### 2.2.8 Curation and metadata

The use of digital materials is ubiquitous in higher education. Electronic presentations, assignments and tutorials are widely used by lecturers and distributed to students, tutors and fellow academics. These materials are often stored haphazardly on a combination of personal hard drives, institutional content management systems, and occasionally institutional repositories.

For digital materials to be used most effectively, and especially when they are shared, they need to be located on a stable online platform. Institutions that want to share their materials therefore need to develop and maintain a space or system that allows content producers to upload, store and modify educational content (Paskevicius, 2011). Of the many platforms that fulfil these functions, one of the most often used is the LMS.

An LMS is a platform that integrates a number of digital learning tools such as wikis, file sharing spaces, discussion forums and electronic submission processes into a single, cohesive platform (Dalsgaard, 2006). Each LMS has a range of different functionalities and several offer customisable interfaces so individual users can tailor them to their specific educational needs. Integrated with syllabi and lesson plans, an LMS can serve as a powerful tool for supporting teaching, administration and course management within an institution. A variety of proprietary- and open-source options exist for institutions, including Moodle<sup>13</sup>, Sakai<sup>14</sup>, Blackboard<sup>15</sup>, Desire2Learn<sup>16</sup>, and Instructure<sup>17</sup>, among many others. UCT uses a local instance of the Sakai platform, named Vula, which is well established and used extensively by both staff and students (CILT, 2015).

While LMSes can be used to curate content, they are not necessarily open as understood by the OER community, in that the materials may be accessible only by a limited audience and/or may not be openly licensed. LMSes do however fit into the ecosystem of online sharing as they provide a space where materials can be uploaded and accessed within a particular learning community.

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<sup>13</sup> <https://moodle.org/>

<sup>14</sup> <https://sakai.rutgers.edu/portal>

<sup>15</sup> <http://uki.blackboard.com/>

<sup>16</sup> <https://desire2learn.4cd.edu/>

<sup>17</sup> <https://www.instructure.com/>



### 2.2.6.1 Repositories

A repository is an online file storage platform that contains and describes data. They can either be closed-access (open to a limited number of people, usually via password-protected sign-in) or open to the public. In an academic context, repositories are usually classified in three ways:

- Subject/disciplinary repositories, which curate content based on a particular academic discipline, and source that content from a variety of institutions, projects and working groups. Examples include the Economics subject repository RePeC<sup>18</sup> and the Physics disciplinary repository ArXiv<sup>19</sup>.
- Institutional repositories, which curate the content of a specific university or college. Examples include Open.Michigan<sup>20</sup> and MIT OpenCourseWare<sup>21</sup>
- Agglomerators, which profile content from a number of institutions. Examples include iTunes U<sup>22</sup> and the Open Education Consortium.<sup>23</sup>

Repositories usually limit themselves to curating educational materials, scholarly outputs (journal articles, conference papers, books and book chapters) or data. While similar software architecture and metadata schemas can be used for scholarly outputs and educational materials, data requires its own software and interface to ensure proper curation and to maximise the quality of the data (Doorn, Dillo & van Horik, 2013).

The primary difference between an LMS and a repository is that the former may contain functionality to help users create, comment upon and edit content, while the latter is focused on curation and metadata of completed objects.

An Open repository is one that combines the normal features of a repository (long-term storage, automated back-up facilities, persistent identifiers in the form of Digital Object Identifiers or handles (International DOI Foundation, 2015) and comprehensive metadata structured according to one of the dominant metadata standards) with an explicit focus on reaching as broad an audience as possible. This is accomplished through optimising the technical aspects, such as metadata and adequate search functionality; ensuring open or accessible formats, such as encouraging the use of open-source formats (e.g. Open Office); freedom of access (no cost to access, and no registration required); and ensuring that objects are licensed or described in a way that allows and encourages their reuse.

### 2.2.6.2 Metadata

As more and more students access educational material online, particularly in the developing world (Allen & Seaman 2013), 'metadata' (description of the data and its history) has become an increasingly important part of OER, as the importance of visibility grows in an online environment saturated with user-generated content (Ossianalsson & Creelman, 2012). Therefore a well-made OER contains sufficient metadata (such as keywords or tags) to be discoverable using normal searching tools (Sheppard, 2009).

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<sup>18</sup> <http://repec.org/>

<sup>19</sup> <http://arxiv.org>

<sup>20</sup> <http://open.umich.edu/>

<sup>21</sup> <http://ocw.mit.edu/index.htm>

<sup>22</sup> <http://www.open.edu/itunes/>

<sup>23</sup> <http://www.oecconsortium.org/>



### 2.2.9 OER quality

One of the key aspects of OER advocacy is the belief that OER has the potential to improve education by enhancing the quality of educational materials and practices, whether through increased reflection on and development of the materials by the producer pre-release, rigorous quality assurance from peers or the institution for which the producer works such as at Unisa (UNISA, 2013) and the OpenLearn Initiative (Camilleri, Ehlers & Pawlowski, 2014), or external commentary and validation mechanisms that enhance future versions of the materials (Prasad, 2014).

OER shares certain quality issues with distance learning, as both are predicated on a learning environment where face-to-face contact with the educator or creator is limited. This has implications for how OER quality is understood, particularly as the materials need to compensate to some extent for the lack of the performative aspects of face-to-face instruction (Mayer, 2014). In addition, OER has specific quality concerns above those of distance education materials, in that the quality of the associated metadata becomes important, and pedagogical strategies need to take into account the diversity of potential learners as the materials are available to anyone.

While to some degree quality will always remain a subjective concept, McGill et al (2010) and Camilleri, Ehlers and Pawlowski (2014) identify between them six concepts that together encompass the idea of OER 'quality'. These are:

- *Accuracy* – the precision and absence of errors in a particular OER.
- *Accessibility/Availability* – Ease of access, transparency.
- *Excellence/Standard of technical production* – the technical quality of the object, compared to its peers and to its “quality potential” (Camilleri, Ehlers & Pawlowski, 2014).
- *Reputation of producing institution* (McGill et al., 2010; Kawachi, 2013) – institutions/producers with good reputations are assumed to produce high-quality educational materials, and thus high-quality OER.
- *Fitness of purpose/Efficacy* – the ability of the OER to facilitate a specific learning outcome
- *Impact*– “the extent to which an object or concept proves effective ... dependent on the nature of the object/concept itself, the context in which it is applied and the use to which it is put by the user” (Camilleri, Ehlers & Pawlowski, 2014, p. 13).

Other academics have also investigated the concept of OER quality. The TIPS<sup>24</sup> framework, developed by the Commonwealth Educational Media Centre for Asia (Kawachi, 2013), was constructed after surveying over 30 OER projects and quality frameworks in order to develop a comprehensive picture of what constitutes quality in OER. This framework, consisting of 65 specific activities tied to five “Domains of Learning” (Kawachi 2013, p. 19), contains an extensive list of recommendations to support quality in OER, ranging from technical considerations to pedagogical development, assessment and motivational issues.

The focus in these frameworks on the pedagogical content of the OER and their ability to facilitate a particular set of learning objectives which, while valuable, is less relevant to this study. As the OER Adaptation project was focused on the adaptation of existing resources and not the development of new material, and because the adapting cohort was comprised of students rather than professional

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<sup>24</sup> TIPS is the acronym for “Teaching and learning process, the Information and material content, the Presentation, product and format, and System, technical and technology” (Kawachi et al., 2013, p. 7).

academics, educational quality (pedagogy, assessment, learning support, etc.) did not factor into the main thrust of the adaptation work. Rather, the project focused on ensuring the quality of openness and the technical quality of the resources, which align closely with Wiley's (2014) 5 R's model, the "Accessibility/Availability" of Camilleri, Ehlers and Pawlowski's (2014) model, and the "Access" and "Packaging" components of Kawachi's framework (2013, p. 21). Therefore for the purposes of this study, I have classified quality of OER into three main domains:

- Quality of an OER's *openness* component, including copyright clearance and licensing
- Quality of an OER's *educational* component, which includes the pedagogic soundness of the intellectual content in the OER; the currency/relevance and comprehensiveness of the content; and context-independence (where possible and/or appropriate)
- Quality of an OER's *resource* component, which includes the file size and format of the final OER; where it is hosted; the comprehensiveness of the ascribed metadata; and the comprehensiveness of referencing.

Addressing educational quality was beyond the scope of this project. OER at UCT is currently not subject to any form of formal Quality Assurance (QA) process, relying instead on the 'pride of authorship' model, in which "the responsibility for the accuracy of the resource [is] taken by the academic author" (Hodgkinson-Williams & Donnelly, 2010, p. 3). Furthermore the students themselves were not intended to serve as pedagogical experts and were not trained in learning design techniques, focusing instead on IP skills and improving the technical quality of the resource through formatting and metadata ascription.

#### 2.2.10 The Quality Assurance process

Quality Assurance (QA) as applied to OER may consist of two components. First, a pre-release process, where potential OER undergo QA as part of normal institutional (or personal, in the case of individuals producing OER) review processes. The second component is post-release, where their availability in the public forum allows for rating systems, individual third-party feedback, and other forms of external critique to be solicited (OER Africa, 2014). External forms of quality feedback are one of the proposed value-improvement qualities of OER over traditional closed-access teaching materials (Pawlowski et al., n.d). However, their ability to inform or improve quality relies on some form of post-review process, where feedback is integrated into a new version (and if necessary revision) process (Hodgkinson-Williams, 2014).

McGill et al's (2010) study indicated that across three levels of OER production – by individual producer; by subject strand; and by institution – the consensus amongst OER producers was that the need to think about QA in an open educational environment led to increased scrutiny of the materials, resulting in higher quality. In the same study, the majority opinion of OER producers was that pre-release QA for OER should arise out of existing QA practices, as existing QA should already be sufficiently rigorous, and adding centralised processes to existing ones is not likely to be sustainable. In the case of OER-producing institutions, awareness of the public visibility of OER and their potential as reputation enhancers for the institution has often resulted in conservative QA protocols that stress the need for peer-review and institutional vetting. This applies more often to "Big OER" (Weller, 2010, pp. 1). At UCT, for example, a first round of institutional MOOCs are being developed, and these Big OER are undergoing multiple levels of individual, departmental and institutional vetting processes. "Little OER" (Weller, 2010, p. 1), are less subject to this kind of pressure, and are not subject to a specific QA process.

The process of post-release review and revision is somewhat complicated by the ‘O’ in OER – specifically, the permissions of OER licensing that allow and promote sharing and redistribution of resources. This can be threatening to institutions that desire a “single version of the truth” (Inmon, 2004, p. 1), as any post-release editing and the release of new versions would not necessarily disseminate immediately throughout the network of existing users (and sharers/redistributors) of the previous resource. Furthermore exhaustive QA processes (inspired by worries over reputation) can slow down the release of OER (Panigrahi, 2014).

For the purposes of this study, the focus on the ‘Open’ and ‘Resource’ aspects of OER mentioned in Section 2.2.7 sidesteps many of the issues raised by these more pedagogically-focused QA processes. As pedagogical QA is relegated to the contributing lecturer, the project’s quality directive focuses on ensuring that the materials comply with the legal and technical principles of Openness, through comprehensive copyright clearance, adequate metadata, context independence and hosting through OpenUCT.

#### 2.2.11 Converting existing teaching materials into OERs

An alternative to developing original OER is the transformation of existing educational material into open materials. Lecturers have often invested considerable effort in creating the educational materials they use in their teaching, and may not have the time or desire to create new materials specifically to conform to OER quality standards. Furthermore their familiarity with copyright clearance, metadata ascription and hosting platforms cannot be assumed, as these skills are traditionally the province of ICT units or local tech-support units and not necessarily those of educators.

The process of converting an existing body of teaching materials into OER entails more than simply uploading content to an appropriate digital platform. A set of teaching materials relevant to a specific, face-to-face teaching style, accompanying a lecture and possibly incorporating student interaction requires a different level of complexity and content than one designed for an international, audience of anonymous learners. Additionally, by placing an object in the public sphere, the author implicitly claims the right to redistribute all content therein, which they may not have if the teaching material contains third-party copyrighted materials. The changes can thus be conceptualised in four categories:

- Pedagogical changes – the changes needed to make teaching materials useful as context-independent, open resources
- Copyright clearance – the process of checking all third-party material within a resource for their licensing provisions, and removing, replacing or adapting content as necessary so that the completed object complies with all sub-components’ licensing requirements
- Technical changes – ensuring the files are accessible in terms of size and format
- Metadata – the process of ascribing appropriate keywords or tags that make an object searchable online.

Additionally, strategic decisions need to be made regarding where the completed OERs will be hosted, who will be responsible for the curation and version control of the OER, and what long-term plans will be made for back-ups and long-term storage.

In the case of existing materials adapted to an online, open context, care needs to be taken that the final OERs do not contain materials that are not legally shareable – for example, images sourced from third-party providers. The process of checking content for copyright provisions and then modifying appropriately so the final product is shareable can take substantial time and effort. Lecturers who are already under time pressures (due to their teaching and research commitments) may not be able to, or see the value in committing time to converting their materials into OERs, especially if this activity is not mandated or incentivised in institutional policy (Camilleri & Ehlers, 2011).

One of the possible ways of addressing this concern is to employ postgraduate students to adapt existing teaching materials into OERs, thus saving academics' time while still engaging in Open Education. The most prominent of these initiatives is Open Michigan's dScribe process, in which Masters students take the role of copyright clearance, sourcing alternative third-party materials, reworking existing teaching materials, and communicating these changes to the lecturers who either veto or confirm that the new object can be released as an OER. While the outline of this process has been described on the OpenMichigan website, relatively little research has been conducted on the nature and value of the changes made by students to teaching materials in the transitional process from teaching material to OER, with the notable exception of Hodgkinson-Williams and Paskevicius' (2012a; 2012b & 2013) study on adaptation work performed by Masters students in the Department of Physics at UCT.

#### 2.2.12 Students as producers

Currently, a number of institutions and programmes are experimenting with students as OER (re)producers. The Student-As-Producer Programme at the University of Lincoln engages students as digital scholars, creating and maintaining their own online learning environments. Watling (2012) suggests a possible alignment with another programme at the University of Lincoln encouraging OER adoption and use, combining the lessons learned from digital learning pedagogy with OER creation. Keegan and Bell (2011) studied students' production of video using mobile phones for a vocational media course, and how these films were later used as OER. Perez-Mateo et al (2011) investigated the development of Learner-Generated Content (LGC) as OER; and the OpenLIVES project<sup>25</sup> (a collaboration between the Universities of Leeds, Portsmouth and Southampton) employed students as producers of OER derived from original research work.

A growing body of literature thus exists on students-as-producers of OER, but less has been written about the role of students as adapters of existing lecturer-produced teaching materials into OER.

### 2.3 Research context: The Vice Chancellor's Open Educational Resources Adaptation Project

The OER Adaptation project was a continuation of the OER agenda at UCT by increasing the quantity and widening the scope of the current OERs in the UCT OpenContent directory. The project also aimed to contribute to OER awareness at the institution, as well as serve UCT's Afropolitan mandate by showcasing the quality of African-produced educational materials. It also aimed to shift the focus towards student advocacy, by using postgraduate students to source materials they believed to be high quality by contacting lecturers directly. Explicitly an exploratory, pilot project, part of the

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<sup>25</sup> <https://openlives.wordpress.com/>

intended outcome was to see how best students could be involved in the Open Education process, and more specifically on OER production. Notably, the project was also the first to be funded from the university's core operational budget, rather than from external funding sources.

The initial vision of the OER Adaptation project was to increase the number of OER in the UCT OpenContent repository (which later transitioned to the OpenUCT repository), as well as to broaden the range of materials included in it by specifically targeting those faculties within UCT that were not yet contributing many resources. The project was thus envisioned as employing six postgraduate student adapters, each representing one of the six academic faculties within UCT, (Commerce, Humanities, Science, Engineering and the Built Environment, Law and Health Sciences), excluding the Health Sciences Faculty which at the time of project operation had a separate OER team consisting of a part-time co-ordinator and a full-time adaptation specialist. These adapters would seek out and acquire promising materials from within their own faculties for adaptation. One student coordinator would also be appointed in order to organise IP training, liaise with the academic coordinator of the project, coordinate and advertise events and marketing, and perform additional lecturer liaison, advocacy and adaptation work. Part of the rationale of the selection process was that staff would be most likely to engage with students from their own faculties, especially if those students were already engaged with their academic peers.

Postgraduate students were considered to be the best potential adapters, for three primary reasons:

- Their level of familiarity with faculty staff and their roles as tutors, which would facilitate the acquisition of educational materials
- Their familiarity with subject content, ideally having taken the courses themselves or capable of making quality judgements on unfamiliar materials
- Their relatively flexible time commitments; unlike undergraduate students, they rarely had to attend lectures, giving them time to work on the materials and set up meetings with lecturers.

The positions were advertised via email and responses were received from thirteen students; nine from the Humanities Faculty, three from the Faculty of Science, and one from the Faculty of Commerce. The initial selection of students included students from the departments of Accounting, Library Sciences, Architecture, Politics, Psychology, Education and Computer Science.

Two students left during the initial three months of the project due to personal reasons unconnected with project activity. They were replaced by a second round of advertising that resulted in two new students joining the team from the Departments of Psychology and Physics respectively. This final cohort of students was made up of postgraduates (Honours and Masters students) with the exception of a single first year student whose extensive knowledge and understanding of Open Education prompted his acceptance.

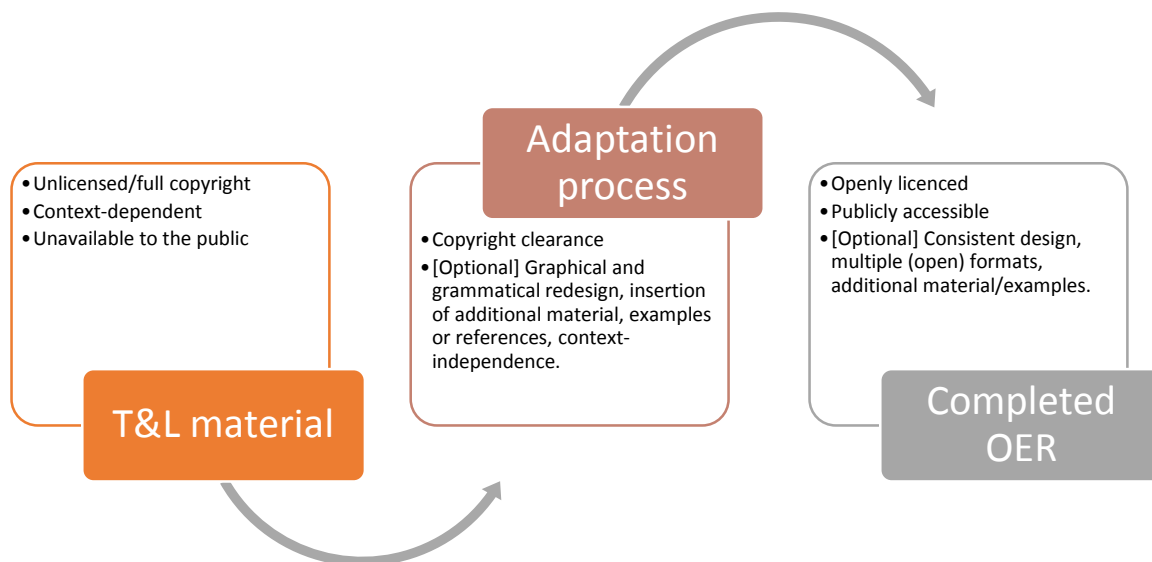
During May – June 2013, training was conducted by a resident IP lawyer and the current UCT OpenContent administrator, introducing students to the concepts of Open Education and Open Educational Resources, explaining the project activity, and demonstrating the process of OER adaptation. The training was based on OpenMichigan's dScribe process<sup>26</sup>, a systematic method for adapting existing teaching materials into OERs, supported by a software package called *OERca* that

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<sup>26</sup> [http://webservices.itcs.umich.edu/mediawiki/openmichigan/index.php/D\\_Scribe\\_Process](http://webservices.itcs.umich.edu/mediawiki/openmichigan/index.php/D_Scribe_Process)

provided a collaborative space for students to work together to perform copyright clearance. The VC's project chose not to use this platform as the institutional ICT infrastructure did not support *OERca*, and the workflow-type style of the process was deemed unsuitable for the more fluid, less structured acquisition and adaptation process envisioned during project scoping. Rather, students were briefed on the concepts and offered support by the project coordinator and student coordinator, but the activity was decentralised and primarily took the form of personal communications between students and their departments. A single student typically worked with several different academics over the course of the project. Team meetings were held in order to ensure that lecturers were not approached by multiple students, as well as to share insights on the adaptation process and discuss any emergent issues.

The adaptation activity was expected to focus primarily on copyright clearance, with additional work being done on the students' initiative (and with lecturers' permission) to improve the quality of the materials by improving referencing, layout and design, or publishing in multiple and/or open formats. This process is illustrated in Figure 1 below:



**Figure 1: 'Simplistic' OER Adaptation process of the OER Adaptation project at UCT**

Project activity concluded on 30th April 2014. While some materials had been uploaded as they were produced during project activity, the bulk of the material was uploaded to UCT OpenContent shortly after the conclusion of the project. The project coordinator and student coordinator, as staff members of CILT, remained available to communicate with academics and continued advocacy and adaptation work, albeit at a reduced scale.

The VC's project offers a chance to explore the process of student adaptation work in generating OERs from existing teaching materials in an environment with low funding and no institutional mandate (though equipped with an IP policy that allows and encourages sharing) that is beginning to engage seriously with Open Education from an institutional perspective.

## 2.4 Theoretical frameworks underpinning similar studies

Academics have used a variety of theoretical models in trying to understand the OER landscape. Panke and Seufert (2012) discuss several theoretical lenses that can be used to understand learning with OER, including *Distributed Cognition* (Edwin, 1995), *Connectivism* (Siemens, 2005; Verhagen, 2006; Kopp & Hill, 2008), *Actor-Network theory* (Ponti, 2014). Other scholars focused more on the adoption of OER, using frameworks such as the *Theory of Disruptive Innovation* (Yuan and Powell 2012), *Rogers' Diffusion of Innovation theory* (Murphy et al., 2014), *Rogers' Theory of Perceived Attributes* and its extension by Moore and Benbasat (Hodgkinson-Williams & Paskevicius, 2012a), *Bourdiesian Field Analysis* (Olakulehin & Singh, 2012), *Activity Theory* (Godwin et al., 2008; Hodgkinson-Williams & Paskevicius, 2012) and *Archer's Social Realism* (Cox, 2016)

Each theoretical model looks at open education from a different perspective. Activity Theory, for example, offers a useful lens to understand the workflows involved in providing open education, and has been used by several scholars in the field of OER research, for example Paskevicius (2012)'s study of student volunteers' usage and creation of OER in a community based education initiative. Bourdieusian field analysis can be used to uncover some of the tensions between the traditional provision of higher education as benefitting social elites (Olakulehin & Singh, 2012), and the transformational agenda of Open Education to broaden access to higher education to those who could not otherwise qualify for or afford it. Sapire (2010) used *Constructivism* as her primary framework as a theory of learning to study the success of a project on collaborative OER development in mathematics education in South Africa.

Ponti (2014) used Actor-Network theory to highlight the critical importance of objects - in this case, the OER artefacts - in Open Education, and how these objects can exert influences as "vehicles of human agency" (Ponti, 2014, p. 1). Yuan and Powell (2013) used the Theory of Disruptive Innovation (Bower and Christensen 1995) to understand whether or not OERs, specifically, MOOCs, are a disruptive innovation; that is, whether or not MOOCs constitute a new form of educational provision requiring a reconceptualisation of higher education participation and pedagogy.

This study, however, focuses primarily on how a new innovation (the transformation of existing teaching materials into OER) is diffused through a higher education community. Thus, it looks at three communities of study: the materials undergoing adaptation, the students who adapt the materials, and the lecturers whose materials undergo the adaptation process. While Actor-Network Theory offers an interesting framework for the analysis of objects and how they influence systems and networks, it has been critiqued by Whittle and Spicer (2008) for its epistemological stance, which they claimed was too positivistic to offer a critical perspective on how organisations operate, and its reliance on essentialism or "inherent agential capacities" (Whittle & Spicer, 2008, p. 3) when understanding how objects perform in networks.

Rather than focusing on the objects, this study pays more attention to the general process of innovation, with a specific focus on the actors (in this instance, lecturers and students) and structures that influence how the innovation spreads. While the ability to generalise from a small sample group will always be limited to suggestions, a study of this kind benefits from a theoretical model that can offer ways of relating individuals and the structures in which they operate.



I have therefore chosen to adopt Rogers' DoI framework (Rogers, 2003) as the theoretical framework for this study, as it offers the most valuable means of understanding how a particular innovation (in this case, the use of students as OER adapters) succeeds or fails in gaining traction in a community of practice. To more thoroughly categorise and understand the process of OER adaptation, I will also be using Okada et al's (2012) OER quality framework as an analytical model to quantify the OER material production process.

## 2.5 Summary

This chapter has sought to outline the important factors underlying OER in general, and OER adaptation work in particular. The area of student adaptation (as opposed to creation) is currently sparsely researched, and it is hoped that this study will be valuable to those individuals or institutions looking to involve students in supporting local OER initiatives.

The following chapter explores Rogers' DoI framework, which is the theoretical framework that underpins this study. It discusses the benefits and limitations of the framework in OER research, and attempts to add value by introducing an analytical framework derived from OER-specific research (Okada et al., 2012) to add specificity to the framework when working with OER-related issues.

## 3. Conceptual and theoretical frameworks

Open Education is an innovative approach to teaching and learning, introducing new pedagogical strategies, technologies, and practical considerations, primarily to educators, but also to learners and educational administrators. It therefore requires a change in practice for those engaged in more traditional face-to-face or distance learning, a process that may be resisted or embraced once the concept has been communicated to those with the power and agency to engage in it.

The process by which an innovation is adopted or rejected is of great interest to policy makers and others who seek to change how a particular activity or process is conducted. The introduction of an innovation however is complex, and is influenced by many factors. These include interpersonal relationships amongst the innovating cohort, varying levels of socio-economic capital, risk tolerance (or aversion), the perceived costs vs. benefits of adoption, and a myriad of others. While other studies and models have focused on some of these factors, many fall into a "technocentric trap" (Papert, 1987, p. 2) and focus heavily on the technological aspect of innovation while paying less attention to the social, cultural and temporal aspects that affect the rate of adoption (Bers, 2012).

A theoretical framework that addresses the human, interpersonal and structural aspects of innovation uptake is Rogers' DoI theory. First outlined in 1962 and extensively revised since then (with the most recent edition published in 2003), the DoI model offers a method to uncover the different factors at play in the spread of an innovation within a community, and offers some insight into how to discover which aspects of a particular innovation, or the community it seeks to change, impede or support the uptake of new technologies, ideas or practices.

The following section outlines Rogers' DoI model, including his definition of the concepts of communication, diffusion and innovation that will serve as the basis for this study. It then explores the value other scholars have added to the model by expanding some of its concepts. The section concludes with some of the potential weaknesses and gaps in the model that other scholars have identified and how these have been addressed in the conduct of this research.



### 3.1 Diffusion of Innovations

Everett Rogers, a rural sociologist, observed that technological innovations (such as the introduction of new farming equipment in rural areas) are adopted at different rates among members of a community, and that the rate of diffusion was tied to a number of social, cultural, demographic and economic factors. While originally focused on technological innovation, Roger's DoI framework has been used in a number of different fields "ranging from agriculture to marketing" (Surry & Farquhar, 1997, p.1) to understand how a new technology or idea diffuses through a community.

In his seminal work *Diffusion of Innovations* Rogers (1962) developed a framework to explain this rate of innovation diffusion. Rogers identified several critical areas for analysis that have been refined over the years:

- The socio-cultural position, age and wealth of potential adopters
- Whether individuals, collectives or authorities determine the uptake of an adoption within a community
- The identity of influential actors within a community who can influence others' perceptions of innovation ("opinion leaders" (Rogers, 2003, p. 300))
- The orientation of the adopters towards innovation, or the "adopter categories" (Rogers, 2003: 267)
- The degree of similarity between the change agents – those who introduce the innovation – and the potential adopters
- The communication channels by which news of an innovation spreads
- The five relational factors which influence adoption of a new innovation, namely: Relative Advantage; Compatibility; Complexity; Trialability and Observability (Rogers, 2003).
- The consequences of adopting an innovation, including the costs of adopting versus the potential gains from doing so.

This study's limited scope means that not all of these areas can be explored in depth. Before we can talk about these factors, however, we need to understand how Rogers defines the core concepts underlying the DoI framework, namely: *Innovation*, *Social Change*, and *Diffusion*. These concepts will help us understand how Open Education concepts and practices spread or are not taken up within academic institutions, and specifically how the actions of the OER Adaptation project can be analysed as an example of social change.

### 3.2 Innovation

To understand what factors encourage or discourage academics to engage in Open Education where there is no institutional mandate requiring them to do so, it is useful to employ a theory that seeks to explain how and why innovations succeed or fail. These innovations do not need to be solely or primarily technological in nature - the concept of ideas as innovations is particularly important in the field of Open Education (Bick & AbuJarour, 2014). While supported and enabled by technological tools, much of the change in practice required in an Open Education context is conceptual and pedagogical in nature rather than simply the adoption of new technologies (Beetham & Sharpe, 2013).

This study takes Rogers' definition of innovation, reproduced below:

An *innovation* (original emphasis) is an idea, practice, or object perceived as new by an individual or other unit of adoption. It matters little, so far as human behaviour is concerned, whether or not an idea is “objectively” new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If the idea seems new to the individual, it is an innovation.

(Rogers 2003, p. 12)

Rogers further explains that innovations can take a variety of forms: such as the introduction of a new object or artefact, the adoption of a new technique or process in an existing system or framework, or new ideological beliefs or social movements (Rogers, 2003). All innovations, moreover, consist at least partly of an ideational component as well as a possible material component (Rogers, 2003). Adoption of a purely ideational innovation (such as a new political ideology) is a symbolic action, while adoption of a material innovation includes the use of physical objects in some capacity.

This study focuses on an innovation with ideational, practical and material components, all of which are crucial in studying OER adoption:

- Ideational: principles of Open Education; IP
- Practical: copyright clearance, referencing images, metadata ascription, curation
- Material: created OER, technological tools used in copyright clearance

Innovations also occur in institutional and disciplinary contexts in which peer relationships and bureaucratic imperatives impact on individuals’ ability and willingness to adopt an innovation. As such, any theory of innovation diffusion needs to be able to adequately address the social dimensions in which an innovation occurs.

The DoI framework has been expanded by a number of academics who added nuance to Rogers’ initial conceptualisation, notably Moore and Benbasat (1991) who expanded Rogers’ (2003) Perceived Attributes of Innovations. Lazarsfeld and Morton’s (1954) analysis of homophily and heterophily in communicative relationships offers further insight on the specific relationships between students and lecturers and how this might affect the adaptation process. Thus, the expanded conceptual framework that will be used in this study includes *challenges of heterophilous communication* and the *costs of adoption* as additional theoretical lenses through which to view OER adaptation.

The innovation in the context of this research is specifically the inclusion of students as OER adapters to facilitate OER production. This study is unable to and does not attempt to address the broader issue of why lecturers attempt to engage in OER adoption, but rather focuses on whether or not the additional skills and time provided by student adapters can advance OER production within the context of a voluntary, un-mandated OER production environment.

### 3.3 Social Change

The core concept underlying the DoI model is the concept of *social change*. The DoI model focuses on the ways in which the introduction and communication of a new tool, production input, concept, method or practice – an *innovation* – changes the practices of a community. It specifically focuses on

how behaviour changes as a result of this introduction, and how this change can be predicted, guided or enhanced by understanding what factors guide social change.

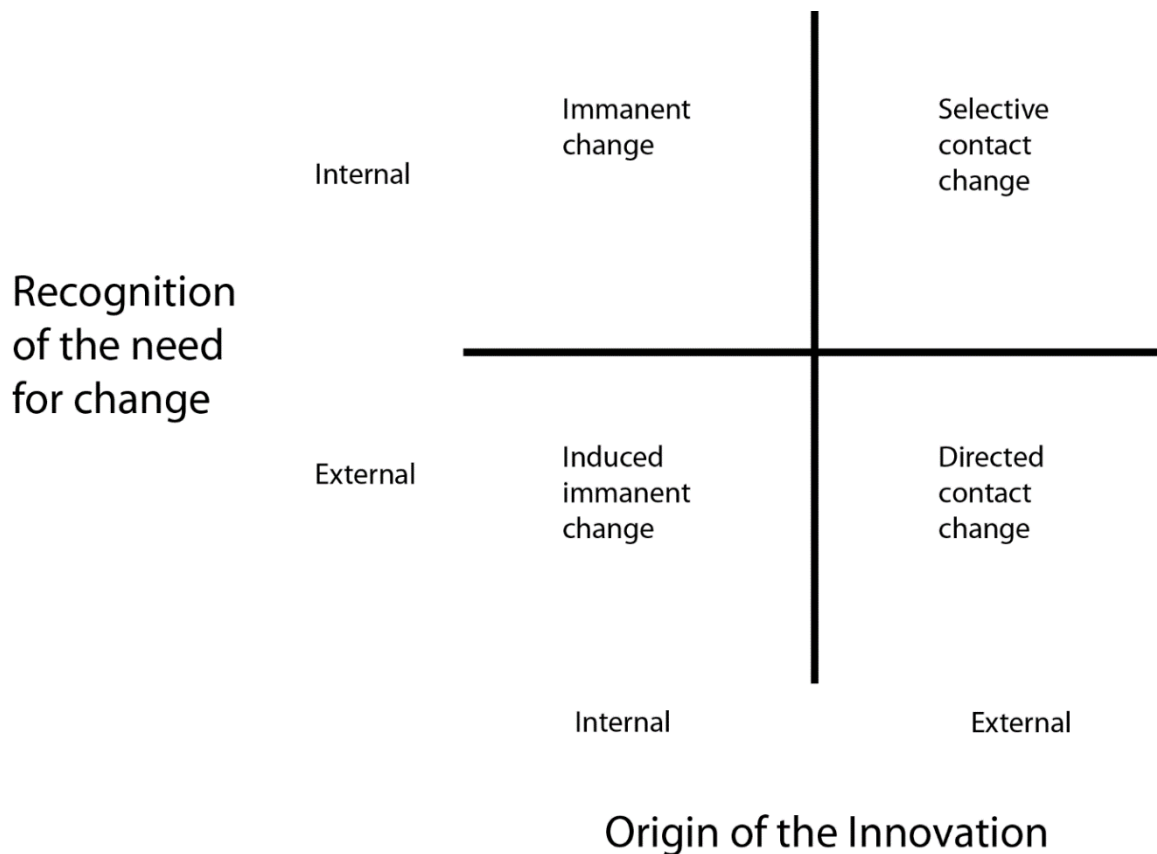
The source of the change is also valuable to explore when discussing social change. Rogers developed a typology for the different kinds of social change, oriented along two axes:

- The *origin* of the new idea (internal or external)
- The *recognition* of the need for change (internal or external)

This results in four possible forms of social change:

- *Immanent change* (internal origin, internal recognition) – occurs when members within a social system create an innovation without external influence.
- *Induced immanent change* – (Internal origin, external recognition) when an external agent recognises and articulates an area that would benefit from innovation to members of a social system, but does not propose a solution, leaving the community to develop their own innovation.
- *Selective contact change* (external origin, internal recognition) – members of a social system become aware of an external innovation, and adopt it or adapt it according to their self-identified needs.
- *Directed contact change* (external origin, external recognition) – an external agent (hereafter referred to as a 'change agent') intentionally enacts an innovation in order to achieve an externally-defined goal.

This matrix is illustrated in Figure 2 below:



**Figure 2: Forms of Social Change**

In the case of this research, the change in academics' attitudes towards Open Education and OER production more specifically, constitutes the form of social change under investigation. The academic cohort in this instance contains student adapters and lecturers, two separate groups with different experiences of the process, and their location on this matrix will be explored in the course of the research.

### 3.4 Diffusion

Rogers defines *diffusion* as the process by which "an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 2003, p. 5). The intent of innovation diffusion is to bring about both attitudinal and behavioural change in the community, rather than being limited to raising awareness or other forms of increasing knowledge that do not necessarily lead to a change in practices.

While some scholars maintain a difference between dissemination as a process of deliberate, agenda-driven change (*directed social change* in Rogers' taxonomy) and diffusion as the natural/unplanned spread of information (selective contact change) Rogers' model uses both words interchangeably (Rogers, 2003). This study will use 'diffusion' to describe the spread of innovation information, but recognises that information travels in a variety of different ways, and that the Vice Chancellor's project may not have been the first exposure to OER for some of the participants. Rogers' Forms of Social Change matrix (see Figure 2) will therefore be used to describe the different ways in which students and academics first learned about OER.

### 3.5 Conceptual categories in the DoI framework

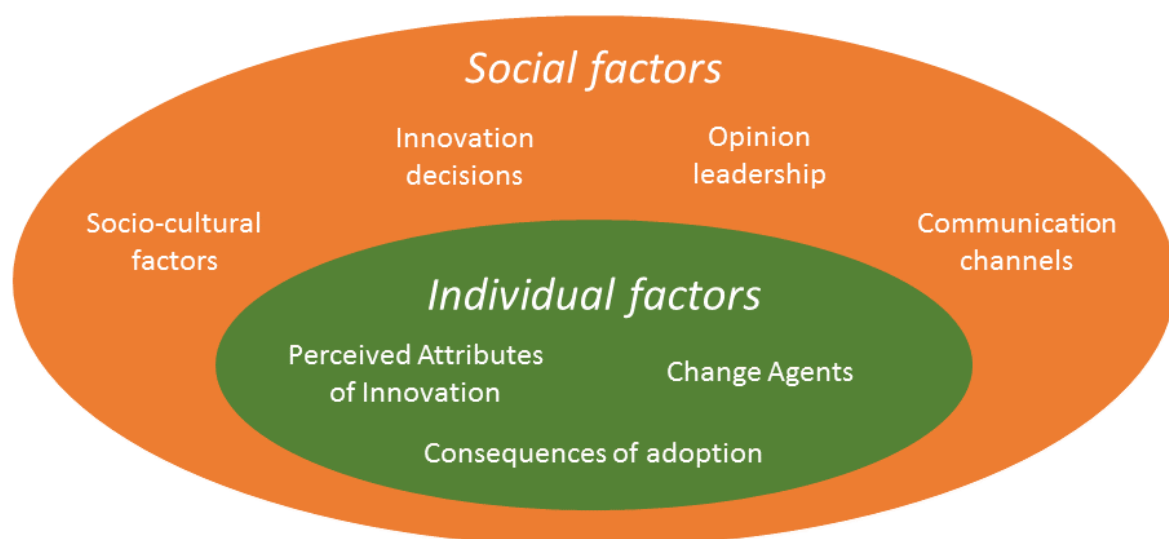
I have divided Rogers' DoI framework into analytical categories concerning macro-level diffusion, and those which focus on the micro-level instances and causes of innovation. The macro-level factors include:

- The socio-cultural position of potential adopters
- The locus of innovation decisions (authoritarian, collective or individual)
- The role of opinion leaders
- The role of communication channels
- The rate of adoption

The micro-level or agential factors that deal with an individual's choice whether or not to adopt include:

- The Perceived Attributes of Innovations
- The exploration of the role of the Change Agent
- The consequences of adoption to individuals

Given the small group of students and lecturers involved, this study does not attempt to add to the literature on the macro-level factors that influence the diffusion of innovation. This study rather explores at the micro-level how student adaptation is compatible with a particular ecosystem of practice. Therefore the core focus of this study is on the Change Agent (3.5.1) and the Perceived Attributes of Innovations (3.5.2) portions of Rogers' DoI framework, as illustrated in Figure 3 below:



**Figure 3: Cultural and Agential factors**

#### 3.5.1 Change agents

According to Rogers (2003), change agents are the actors who introduce an innovation to a new community, and usually help facilitate its diffusion. They act as intermediaries or communication links between two different social groups, often groups that are disparate in "sub-cultural language differences ... socioeconomic status, technical competence, and beliefs and attitudes" (Rogers, 2003, p. 368).

Change agents go through a process when introducing a new innovation:

- 1) Develop a need for change, by identifying for a community of potential adopters a need or problem
- 2) Establish a relationship, in which they develop rapport with the potential adopters
- 3) Diagnose the problem by identifying ways in which current practices or ideologies don't meet the need previously identified
- 4) Create an intent in the client to change
- 5) Translate the desire into action
- 6) Stabilise the change
- 7) Terminate the relationship once a stable equilibrium has been achieved, i.e. when the innovation becomes standard practice within the community.

Stages 1 through 4 correspond to the category of 'Acquisition activity' (see Section 3.6.1), while stage 5 corresponds with 'Modification activity' (Section 3.6.2). Steps 6 and 7, long-term goals for ensuring the sustainability of the adoption, were not practical given the limited time and scope of the project.

#### *Characteristics of change agents - Homophily*

The identity of the change agent is important when seeking to understand how innovation can best be diffused in a community. Students informing and educating lecturers (in this instance, about Open Education) is an inversion of the traditional relationship between instructor and learner. This inversion of the power dynamic, coupled with the lack of incentivisation to share openly (no formal institutional recognition such as for promotion purposes, limited peer recognition), poses interesting challenges for the diffusion of innovation.

Lazarsfeld and Merton first introduced the concept of "homophily and heterophily" (1954, p. 1) in discussing the ideal communicative relationship for transmitting innovation. Homophily, defined by Rogers as "the degree to which a pair of individuals who communicate are similar ... in certain attributes, such as beliefs, education, social status, and the like" (Rogers 2003, p. 305) is therefore how two individuals are alike, while heterophily indicates the degree of difference.

By its nature, diffusion of knowledge, skills and practices occurs primarily between heterophilous individuals (Rogers, 2003). Without a differentiation in skill level or knowledge, no individual can act as a source of change; however, individuals are more likely to embrace innovations when they are presented by individuals relatively similar to them (culturally, educationally, socially, and occupationally) (Lazarsfeld & Merton, 1954). Therefore while there does need to be some level of differentiation for there to be an innovation to be communicated, the "more homophilous that two individuals are, the more likely that their communication will be effective" (Rogers, 2003, p. 306).

The aim of recruiting students that would work in their respective faculties was intended to maximise homophily between the student adapters and the lecturers. Postgraduate students such as the ones employed in the OER Adaptation project, while closer to the lecturers in terms of knowledge content, age and socio-cultural status than undergraduate students, remain of a visibly heterophilous social group. This study intends to generate some insight into the nature of this heterophilous relationship and to what extent it affected the successful communication of innovation.

### 3.5.2 Perceived attributes of innovations

The importance of understanding the qualities of a particular set of change agents, and the communication channels they use in order to affect the adoption of a particular innovation, is matched by the importance of understanding what motivates a community to adopt that innovation.

The following factors were first identified by Rogers (1962) in the first iteration of the DoI framework:

- *Relative advantage*– the degree to which an innovation is perceived as better than the idea it supersedes
- *Compatibility* – the degree to which an innovation is perceived as being consistent with existing values, past experiences and needs of the receivers
- *Complexity* – the degree to which an innovation is perceived as difficult to understand and use
- *Trialability*– the degree to which an innovation may be experimented with on a limited basis.
- *Observability* – the degree to which the results of an innovation are visible to others

These core concepts underpinning the DoI framework are the factors that operate at the agential or individual level, though they are influenced by the structural conditions in which a community is embedded.

As the DoI framework began to circulate in the academic community, several other scholars identified other factors pertinent to their own particular studies on the diffusion of innovations. Moore and Benbasat (1991) expanded upon these factors in their study of innovation diffusion, which focused on the perceptions about adopting an innovation. A focus on perceptions, they argue, is critical as “behaviour of individuals ... is predicted by how they perceive [the primary characteristics of innovation]” (Moore & Benbasat, 1991, p. 184).

In their own studies, Moore and Benbasat identified further factors that were pertinent in their studies of the adoption of personal work stations:

- *Voluntariness* – “[D]egree to which the use of the innovation is perceived as being voluntary or of free will” (Moore & Benbasat, 1991, p. 195).
- *Image* – “[D]egree to which use of an innovation is perceived to enhance one’s image or status in one’s social system” (Moore & Benbasat, 1991, p. 195).

As this project was entirely voluntary, Voluntariness was not used as an analytical concept. Image, however, is central to the nature of an OER-focused project, and so has been included as one of the Perceived Attributes of Innovation relevant to this study.

Furthermore, Moore and Benbasat determined that the factor of *observability* was a complex one; originally defined as “the degree to which the results of an innovation could be visible to others” (Rogers, 2003, p. 255), it contains the idea of the innovation itself being visible. This is pertinent in this study; as the innovation is primarily a software adoption, it is less visible than one which includes an obvious hardware/material component. Software-dominant innovations “possess less observability, and usually have a relatively slower rate of adoption” (Rogers, 2003, p. 259). Thus, Moore and Benbasat determined that the category could be productively divided into two separate sub-categories:

- *Visibility* – the degree to which an innovation is visible to others
- *Resultant Demonstrability* – the tangibility of the results of using the innovation (Moore & Benbasat, 1991, p. 203)

Moore and Benbasat (1991) also make a critical distinction between attitudes *toward an object* versus attitudes towards *using an object*, which resonated with Rogers' assertion that "it is the receivers' perceptions of the attributes of innovations, not the attributes as classified by experts or change agents, which affect their rate of adoption" (Rogers, 1962, p. 138). While there may be in principle a belief that a particular innovation (practice, tool or idea) is worthwhile, attitudes towards a particular object can be different from the perceptions of the use of that object (Ajzen & Fishbein, 1980). In the words of Moore and Benbasat:

"It is not the potential adopters' perceptions of the innovation itself, but rather their perceptions of **using** (original emphasis) the innovation that are key to whether the innovation diffuses."

(Moore & Benbasat, 1991, p. 196)

This focus on perceptions is particularly pertinent to this study due to the structure of the lecturers' involvement in the process. As the lecturers involved in this project were primarily contributors of materials while the student adapters performed the actual adaptation work, their involvement in the innovation was less direct than full adoption of OER. Thus, the lecturers' perceptions of the value of the process (and Open Education in general) are likely to be more accurate indicators than their actual use or adoption of this particular innovation.

While this study addresses all of the factors identified by Rogers and Moore and Benbasat, certain factors were strongly framed by the design of the original project and thus do not serve as key theoretical criteria in the analysis. The following section defines and describes the Perceived Attributes of Innovation as they have been used in this study. These factors are briefly described below, along with an explanation of why they do or do not form part of the research instruments.

### *Compatibility*

One of the key factors in introducing an innovation to an existing system of activity is how that innovation (or innovative practice) conforms with existing practices, structures or values present in the site of intervention. This conformity is labelled "Compatibility" (Rogers, 2003, p. 240) in the DoI framework. Rogers theorised that the greater the congruence between the existing patterns of behaviour and the proposed changes the new innovation brings, the greater the chance of its successful diffusion.

This study is not designed to investigate the broader compatibility of OER with the participating lecturers' needs, but focuses specifically on OER adaptation activity as facilitated by students. The focus of Compatibility is therefore on the lecturers' existing ecosystem of practices around online and Open Education, and to what extent these practices support or do not support the adoption of OER, and more specifically on the perceived value of the use of student adapters in the OER production process.

### *Image*

As a large component of OER is the 'open' aspect, it was anticipated that concerns around representation would play a major factor in the success or failure of producing materials that would



be shared in a public space. DoI labels this concept of representationality 'Image', defined as the "degree to which use of an innovation is perceived to enhance one's image or status in one's social system" (Moore & Benbasat, 1991, p. 195). However, there is also a second aspect to Image, which is the degree to which the use of an innovation is perceived to be potentially dangerous to an adopter's status.

The nature of the materials undergoing adaptation impacts substantially on the notion of Image. While the adaptation process did not allow for the author's anonymity, some of the types of materials adapted consisted of broad impersonal topics or introductory disciplinary principles that are less personal, and therefore pose lower potential threat to a lecturer's Image. Video or audio content where the lecturer is depicted is subject to more Image concerns than anonymous presentation slides or written documents.

#### *Relative Advantage*

The choice to adopt an innovation is influenced by the "degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 2003, p. 229). This could include the degree of profitability associated with adopting the innovation, savings in time and effort over previous techniques, methods or practices, decreases in discomfort or effort, and so forth.

The concept of Relative Advantage is not core to this study, as the OER produced through project activity are not intended to replace traditional teaching materials, but rather enhance their visibility and accessibility. The concept of 'advantage' in this study's context thus referred to the perceived advantage of choosing to produce OER over choosing not to produce it. This perceived advantage could include the lecturers' perception of the value of reaching broader audiences, the perceived effects (or lack thereof) on their career progression and reputation, and other incentivising factors.

The issue of incentivisation falls under Relative Advantage. The potential formal or professional benefits (or lack thereof) that might accrue from OER adoption are assumed to influence the lecturers' choice whether or not to engage with it.

#### *Resultant demonstrability*

An innovation is more likely to succeed if the positive results of its adoption are visible and demonstrable to the adopting community (Moore & Benbasat, 1991). In the case of OER adaptation, the anticipated results were increased access and use of the materials by a variety of audiences, expressed through web analytic feedback functions provided by the repository.

#### *Observability*

Observability is the "degree to which the results of an innovation are visible to others" (Rogers, 2003, p. 258). The results of certain innovations are easily observable, while others may be harder to determine, and the ease of others to observe the results of an innovation affect how that innovation is itself perceived by a potential adopting community.

As there is little in the way of tangible results from producing OER, 'Observability' was considered a less useful factor to analyse than other Image factors. However, it was interrogated in the lecturer interviews with regards to the extent to which Open Educational Practices generally and OER in particular were discussed at a departmental or faculty-wide level; more specifically, if individuals

received any acclaim or prestige based on their OER practices, or indeed if their OER practices were discussed at all with other lecturers or managers.

### *Visibility*

A theme in the OER literature on the difficulties of enacting an OER programme at an institutional level is academics' concerns about how making their materials openly available will reflect on them as scholars or on their institution (Cox, 2016; Richter et al, 2013). This is of particular importance as many academic performance appraisal and promotion schemes hinge on an individual's reputation as a producer of quality materials, with specific focus paid to publication of scholarly outputs in high-quality journals (Trotter et al, 2014).

A key area of this study was determining which audiences contributing lecturers wished to reach with their OER. Understanding lecturers' intended outcomes of sharing OER (increasing access for their own students, providing access to students from other institutions, to learners outside of formal institutions, or even profiling their works for other academics) is vital in understanding what sorts of adaptation work would be considered valuable, and what particular concerns arise around sharing OER.

### *Trialability*

Trialability refers to the idea that users are more likely to adopt an innovation if they have the opportunity to test or experiment with it on a limited basis (Rogers, 2003). Trialability was not used as a concept in the interview schedules, as the entire programme served as a pilot project to test the feasibility of student adaptation of OER as an incentivising device for lecturers looking to adopt OER (or to increase their current level of adoption), and had no mechanisms to enforce participation in the programme. The project itself was thus a trial case, and so determining to what extent it was considered to be successful in motivating lecturers to explore student assistance in the OER production process forms the basis of the interrogation of this concept.

### *Complexity*

Complexity in the DoI framework is defined as the "degree to which an innovation is perceived as relatively difficult to understand and use" (Rogers, 2003, p. 257). Higher levels of perceived complexity are correlated to lower or slower rates of adoption; lower perceived complexity correlates with higher rates of adoption.

Perceptions of difficulty are innately subjective. During the scoping process for the project, it was assumed that lecturers' time constraints were a major factor impeding lecturers' self-adaptation of their teaching materials into OER, but also that those who had previously not contributed OER underestimated the complexity of the adaptation process itself. It was assumed that students would be able to supply not only the time required for proper OER adaptation, but would also be well-placed to develop the suite of skills necessary to transform teaching and learning material into completed OER.

Though the notion of 'Complexity' in the DoI framework provides a broad conceptual hook for understanding change through innovation, it does not focus on objects other than being components in the process of social change. This study, focused on a project in which the production and negotiation around artefacts was central, requires an additional analytical framework focusing on those objects to quantify the changes they underwent in the process.

The OER Adaptation project, designed as it was on student adaptation of teaching materials into OER, uses Wiley's 5 R's (retain, reuse, remix, revise, redistribute) of OERs (Wiley, 2014) as a way to describe and quantify the changes made to lecturers' teaching materials. Okada et al (2012), in their study on OER and social media, developed an expanded framework for analysing the specific changes teaching materials undergo when they are adapted for re-use:

- recreation of content (reauthoring, contextualising, redesigning);
- adaptation of content (summarising, repurposing and versioning);
- adapting the structure of content (translation, personalisation and re-sequencing);
- remixing content (decomposition, remixing, and reassembling) (Okada et al., 2012).

This research uses Okada et al's (2012) framework as a schema for interpreting the concept of 'Complexity' in an OER adaptation context.

Not all of these forms of re-use were intended to be performed by the student adapters. As the focus of the work was on adaptation of existing materials into OER, the remixing component of Okada et al's framework was not incorporated into the student interviews. Certain other components, such as Reauthoring, were also excluded given the intention of the programme was, in part, to profile academics' existing work.

The following aspects of Okada et al's (2012) framework have been included based on the activities that were scoped for in the OER Adaptation project. Definitions have been extracted from Okada et al (2012, p.3):

**Table 2: Adaptation concepts**

Concept	Definition
<i>Redesigning</i>	Converting a content from one form to another*, presenting pre-existing content into a different delivery format**
<i>Contextualising</i>	Changing content or adding new information in order to assign meaning, make sense through examples and scenarios. Recreate content & contribute to new productions**
<i>Summarising</i>	Reducing the content by selecting the essential ideas**
<i>Reauthoring</i>	Transforming the content by adding your own interpretation, reflection, practice or knowledge
<i>Resequencing</i>	Changing the order or sequence

\*In the OER Adaptation project, 'reformatting' (changing the format of an output or releasing them in additional formats, while preserving content) was considered sufficiently analytically distinct to warrant a sub-category under Redesigning, due to the importance of releasing content in accessible open formats (Corrado, 2005).

\*\* The project gave explicit guidance during training as to how these activities should be conducted; namely that redesigning, contextualising and summarising should focus on adapting the materials to optimise for a digital audience. For example, removing course markers, images unsupported by contextualising text; reworking visual humour that relied on in-person explanations, etc.

A second component of Complexity was to perform copyright clearance on the teaching materials in the process of adapting them into OER. This requires a set of IP and online searching competencies that are not widely held by UCT lecturers, who have not needed to engage with IP issues regarding their teaching materials. The degree to which lecturers were previously aware of IP issues (including open licensing and Creative Commons), engaged with and learned about these concepts as a result of the project, and accepting of the legitimacy of open licensing, are also be explored.

Appendix A shows a pre- and post-adaptation example cover page for a series of lecture notes. This example is not representative of the content or disciplines involved in this study and exists purely for illustrative purposes.

### 3.5.3 Socio-cultural factors

Rogers (1962) hypothesised that individuals who are wealthier, have greater social capital, have comparatively low risk-aversion, and are close to sources of scientific innovation and communication, are more likely to adopt innovations and serve as opinion leaders to encourage future adoption within their communities. While different levels of social capital and resource availability exist within academia and not all lecturers and institutions will adopt innovation at the same rates (Heaton-Shrestha et al., 2005; Davies & Smith, 2006; Morón-Garcia, 2006; Newland et al., 2006), the lecturer group in this study is relatively homogenous in terms of socio-economic factors (such as age, levels of education, income), as they all work in the same institution. As such, determining the role that socio-cultural factors play will be secondary to exploring the micro-factors (such as the Perceived Attributes of Innovations) that focus more specifically on individual agency.

### 3.5.4 Innovation decisions

Depending on the community in which an innovation is introduced, individuals, collectives or authorities may be the most influential agents determining the success or failure of the innovation's diffusion. In optional decision systems, individual agents choose whether or not to innovate, regardless of the decisions of others in the community. In collective decision systems consensus determines the success or failure of diffusion; and in authority decision systems those in positions of power determine whether or not to innovate.

While the project's scoping and process was built on the assumption of an optional decision system, reviews of extant data and certain of questions within the lecturer interviews are used to determine if faculty or departmental authorities play any role in OER adoption, and whether there is an existing OER community that influences individuals' choices to engage further.

### 3.5.5 Opinion leadership

Opinion leaders are individuals in a community who have the ability to influence others, not necessarily through formal leadership positions, but largely through interpersonal networks (Rogers, 2003). Being embedded in a community and serving as local sources of credible leadership, opinion leaders can help the diffusion of innovation by being seen as credible within their community, lending an air of respectability to the proposed change initiative.

No attempt was made in the project to pre-identify opinion leaders within the departments and faculties targeted by the students. As both the project and the study did not have the resources to investigate the long-term effects of students serving as OER adapters, exploring the role of opinion leaders in OER adaptation does not form part of this study.

### 3.5.6 Communication channels

Communication channels "are the means by which a message gets from a source to a receiver" (Rogers 2003: 204). They are broadly divided into two forms: *mass media* channels, which are effective in spreading awareness of an issue, communicating rapidly, efficiently but shallowly with a large audience; and *interpersonal* or *localite* (Rogers, 2003, p. 205) communication channels, which are more effective in changing opinions towards an innovation. These channels can come from within a community – localite communication channels (Rogers, 2003), or outside it, as cosmopolite communication channels (Rogers, 2003). While it is possible to have localite or cosmopolite interpersonal channels, mass media channels by their nature are almost always cosmopolite (Rogers, 2003).

Analysis of the communication channels is of secondary importance in this study. The use of student adapters is based on an interpersonal communication model and its attendant characteristics. However, an attempt is made to determine whether lecturers were exposed to OER before the project; the effects of that exposure, and whether or not the channel (interpersonal or mass media) influenced the information they received and their perception of it. Through interaction with students and lecturers, this study attempts to uncover the mechanisms by which academics learn about Open Education; the relative importance of each of these mechanisms, and the specific role of students in transmitting information about Open Education to their lecturers.

### 3.5.7 Consequences of adoption

Influencing the decision to adopt an innovation are the real and perceived consequences of sharing – the professional and personal changes -- that a new innovation will bring about. There are also, as previously mentioned, costs associated with adopting a new form of communication, and benefits that can be derived from this adoption.

#### *Public vs. Private*

Open Education is in essence an act of public engagement. Making educational resources openly available puts them into the public sphere, ideally so that other actors (students, teachers, and members of the public) can reuse, revise or adapt them for local contexts, enhancing their educational impact and improving the quality of global education. There are also more local but still public effects, such as profiling the quality of work of a particular institution, faculty or department.

Accompanying these public consequences are also private consequences. Making one's work publicly available opens it to criticism on its (perceived or real) quality. Making works open has been shown to increase visibility (Swan, 2010), making it even more available to critical eyes. Thus it is possible that opening one's educational materials could result in either positive or negative feedback, with accompanying professional and reputational consequences.

#### *Costs and benefits*

The perceived cost versus benefit of an innovation strongly influences its adoption (Rogers, 2003). While the abovementioned concerns about criticism of quality constitute a possible disincentive to share, so does the time and effort needed to transform a teaching object into an OER. The OER Adaptation project specifically catered for this by employing students in the adaptation role, in order to reduce the time costs for lecturers.

The benefits of Open Education mirror the consequences of the adoption of an innovation. Alongside the social responsiveness of contributing to global education and the potential fears of quality criticism, there is also a potential benefit in making one's scholarship available. Advancement in academia, especially when one reaches senior positions, is strongly tied to local and global reputation as a contributor to scholarship. While traditionally the measure of scholarship has been tied primarily to publication output, a reputation as a skilled teacher may become more important in both performance evaluation and reputation.

### 3.6 Adaptation, Acquisition and Modification

Roger's DoI theory focuses on *adoption* of an innovation, the process whereby a new idea is accepted and practice is transformed within a given community. The focus of the OER Adaptation project was on the *adaptation* process – students sourcing teaching and learning materials and tailoring them into OER.

The innovation being studied in this research is a specific form of adoption – namely, the use of student adapters to perform the adaptation work in lieu of the lecturers expending their own limited time. However, the support offered by the students was not solely limited to saving time. The following quote by Littlejohn and Hood (2014) illustrates how educators new to the OER adaptation process can be conservative in their innovative practices:

Educators at all stages of their OER learning journeys require knowledge to support them in their adaptation and re-purposing of OER. While educators in the early stages of OER adoption tend to engage in minimal adaptation and repurposing, developing more sophisticated knowledge and acquiring greater skill and expertise in this area is an important developmental stage. Educators with more experience in OER engagement benefit from the development of technical knowledge and skills that enable them to employ a wider range of technologies and techniques when repurposing resources.

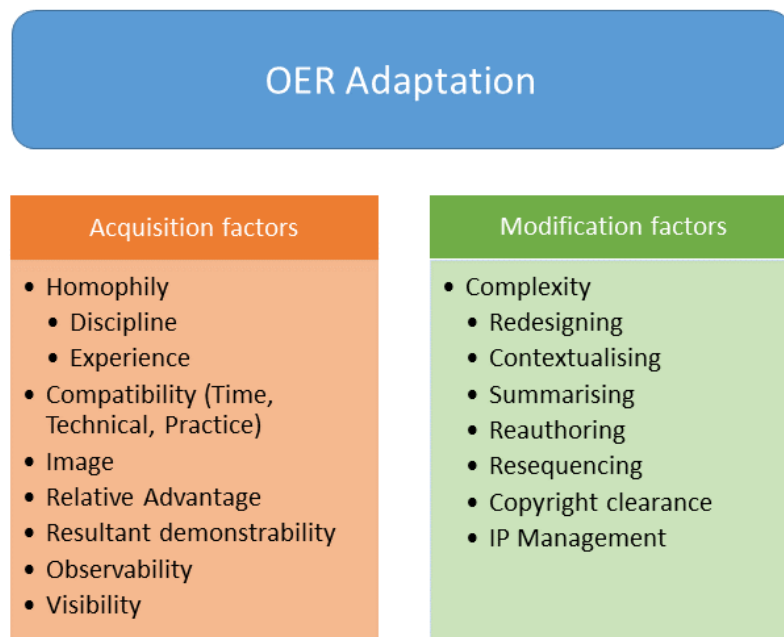
(Littlejohn & Hood, 2014, p. 12)

The adapters were also assumed to have the potential to support the adaptation process by offering the technical expertise they developed in their training with the student coordinator. There was an implicit hope that these skills would help enhance the quality of the final OER produced.

Adaptation work is thus a sub-component of the adoption process – a necessary means of producing an OER from a teaching and learning resource, but contained within a broader adoption schema which includes aspects such as attitudinal change and IP management. More specifically, I consider the OER adaptation process as a trial case in which the lecturers could experiment with adopting one specific form of innovation: namely the incorporation of students as operational agents.

For the purposes of this study, I have separated the broader ecosystem of adaptation into *Acquisition factors* and *Modification factors*. Acquisition factors are the background, contextual and interpersonal factors influencing adoption, while Modification refers to the actual changes made to the materials and the negotiation around these changes between student adapter and lecturer.

Figure 4 maps Roger's Factors of Innovation to the OER Acquisition and Modification processes:



**Figure 4: Acquisition and Modification factors**

### 3.6.1 Acquisition

Before teaching materials can be modified into OER, they need to be sourced and obtained from their creators. In institutional systems that have OER mandates, this process can be conducted through a central unit or built in as a component of normal operations and performance appraisal processes. However, in institutions such as UCT which have the necessary support framework but not the ability to mandate OER production, materials need to be identified and gathered from lecturers. These lecturers may or may not be aware of their ability to engage with OER, and may or may not be willing or enthusiastic about the opportunity.

This study understands Acquisition as occurring mainly through interpersonal channels. While mass media can disseminate information about an innovation (such as student-led OER Adaptation), the active acquiring of teaching materials is greatly facilitated by face-to-face contact between student and lecturer.

### 3.6.2 Modification

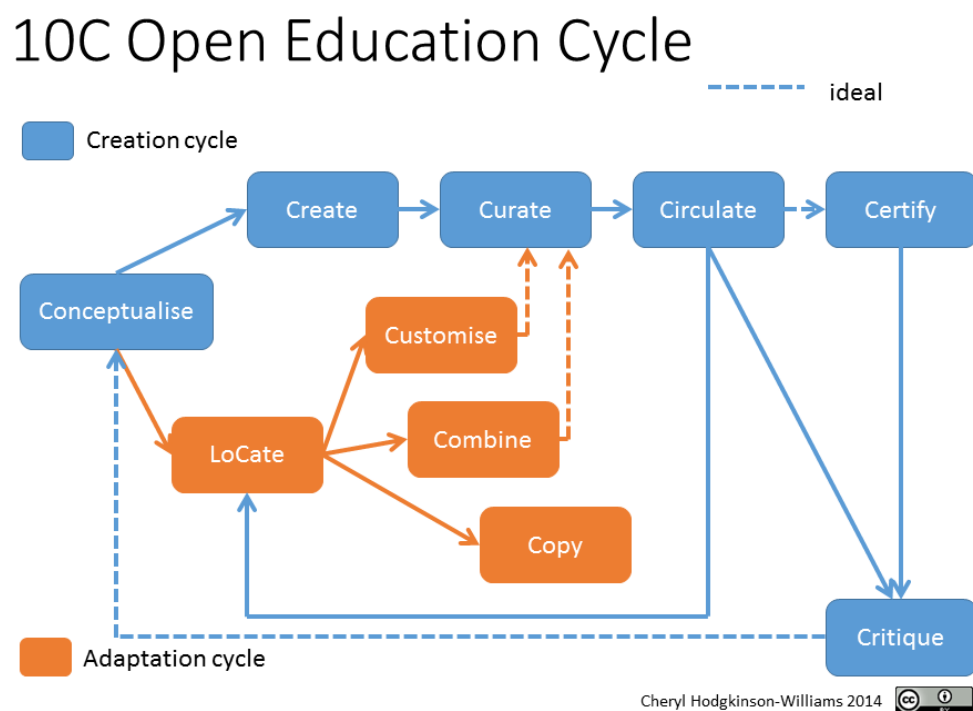
Modification is predicated on successful Acquisition, through whatever channel, and refers to the actual process that materials undergo as they are transformed from localised, fixed-audience and largely face-to-face materials to online, context-agnostic and widely-available OER. Modification requires a specific set of skills, including IP management, pedagogical knowledge, and understanding of ICTs as applied to education.

Modification is also stratified. The minimum requirements for a material to be considered an OER is that it is legitimately open licensed, i.e. it is clearly licensed with an appropriate open licence, and that it contains no third-party material that contradicts that licence. However, there are further possible modifications predicated on an understanding of how a digital object unattached to a specific educational context can best be designed, described and labelled to ensure it is as useful as possible outside of its original teaching medium. These modifications can refer to the object's pedagogical or educational context, and include modifications such as removal of local

colloquialisms and idiomatic language, abstracting or generalising outside of a specific cultural or geographical context, simplifying or clarifying language, and removing references to previous materials within a specific curricular structure. Other modifications focusing on the object's nature as an online digital resource can also be made, such as minimising file size for easier access, publishing it in open or multiple formats for maximum reuse, ascribing it with adequate metadata, and hosting it on a locatable open platform.

### 3.6.3 Comparison with other models

Several scholars, seeking to understand the process of OER production, adaptation or use, have developed conceptual frameworks to help theorise how OER can be produced, either from scratch or through the adaptation of existing 'closed' teaching materials or available OER. Wiley's 5 Rs framework (Wiley, 2014) unpacks what affordances and possible reuse activities OER allows, while the University of Michigan's dScribe process articulates their institutional workflows regarding the Acquisition and Modification of materials into OER. Hodgkinson-Williams's 10 Cs model builds on Wiley by adding more steps to the process, specifically framing and expanding the production factors and scaffolding them with a "Creation cycle" (Hodgkinson-Williams, 2014, p. 10), which explores the conceptualisation, location and curation activities that accompany the adaptation process.

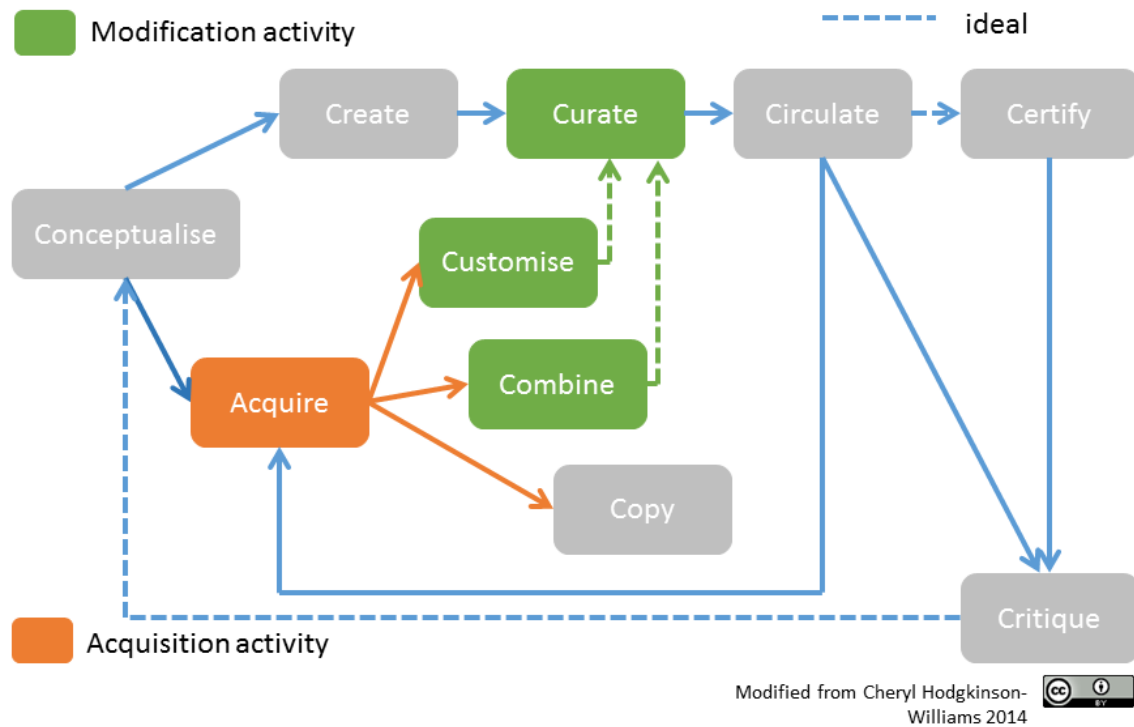


**Figure 5: Hodgkinson-Williams 10C Open Education Adoption Cycle**

These existing models of OER creation tend to have an implicit assumption that the author and adapter are the same person (the 10 Cs model) or are based on an assumption of a strong institutional OER mandate (in the case of the University of Michigan's dScribe process). In this research context, the Acquisition and Modification processes are decoupled from the original creation activity and performed by different actors with differing skills who bring many different assumptions and capabilities to the process.



This study has adopted components of the 10Cs model, specifically focusing on the Modification cycle in the figure above. The acquisition process broadly maps to the LoCate (renamed 'Acquire') and possibly the Critique points in the 10 Cs model, while the Modification process broadly corresponds with the Combine, Customise and Curate components of the 10 Cs model, and to the Revise and Redistribute components of Wiley's 5 R's model. This is represented in Figure 6 below:



**Figure 6: Acquisition and Modification**

The decoupling of the Acquisition and Modification activity supports deeper interrogation of the role of agency in OER adaptation, particularly when it involves multiple agents at different parts of the process.

### 3.7 Summary

Rogers' DoI framework provides a valuable theoretical framing to help understand if lecturers would be willing to employ students as OER adapters to reduce the burden involved in producing OER, while simultaneously improving the quality of the materials produced. Okada et al's framework provides richness in explicating the precise processes that occur when materials are adapted into OER, thus giving a firmer base on which to understand what quality improvements student adapters could potentially bring to the OER production process, and how this quality improvement can be supported or scaffolded by specific training in the Open (IP management), Educational (pedagogical concerns) and Resource (online and technical skills, metadata) components of OER quality.

Furthermore, dividing the adaptation process into an Acquisition phase and a Modification phase helps elevate the initial, pre- Modification activity and emphasises its importance as a necessary precursor to Modification. Depending on the anticipated depth and comprehensiveness of Modification activity, this may help OER project implementers optimise their Acquisition activity by targeting educators who are most willing and able to contribute.

## 4. Research Methodology

### 4.1 Introduction

The purpose of this chapter is to define the research process followed in this study. This study explored the process of OER Adaptation by student adapters, with the aim to determine in which ways and under which conditions students can support the production of OER in their institutions. Specifically, this chapter explores the research approach adopted, the participant selection, the strategies and data collection methods used, and an explanation of the ethical issues involved in an Open research project. It concludes with a discussion on how validity was accounted for in a study that investigated both change and the perception of change and any emergent issues that were important.

### 4.2 Research approach

#### 4.2.1 Ontological position

I have chosen to adopt a critical realist ontological perspective (Bhaskar, 1997). The core assumption of critical realism is the existence of an independent reality, that is filtered through individual and societal norms and beliefs. Benton and Craib (2001) describe it as an ontological system grounded in the belief of:

“[t]he independent reality of the objects of our knowledge, and the necessity of work to overcome misleading appearances [which] implies that current beliefs will always be open to correction in the light of further cognitive work (observation, experimental evidence, interpretations, theoretical reasoning, dialogue, and so on.). Critical realism is thus ‘fallibilist’, in contrast to idealist and relativist theories of knowledge which insulate themselves from the possibility of being proved wrong by doing away with the idea of a knowledge-independent reality.”

(Benton & Craib, 2001, p. 121).

A core aspect of the Critical Realist approach is the concept of the ‘stratified nature of reality’ (Bhaskar, 1978), the division between the *empirical* (that which can be observed), the *actual* (the events which occur) and the *real* (the mechanisms that generate events). Critical realism attempts to uncover these generative mechanisms (the *real*) while avoiding the “epistemic fallacy” (Baskhar, 1975, p. 116) of conflating epistemology with ontology. The small scale of this study makes it difficult to make strong assertions about the real or causative mechanisms influencing OER adaptation, but these will be made where there is sufficient evidence to support them.

As this research study focuses on both the observable changes to educational materials and the perceptions of the value of these changes, critical realism, rather than positivism (which focuses on the observable) or interpretivism (which focuses on people’s interpretations and considers each perspective equally valid) offers the best paradigmatic approach to the ‘reality’ of the OER adaptation process. Critical Realism acknowledges the importance of subjective experience without falling into a relativistic trap that precludes quality judgements due to the supposed lack of an objective reality.

Importantly, Critical Realism acknowledges that knowledge is fallible (Bhaskar, 2008); that is, any particular perspective, while potentially valuable, is criticisable and that all perspectives are not

equally valid. As ontologically Critical Realism asserts an objective reality that can be understood from multiple, fallible perspectives, this study uses multiple sources to create a more complete account of the Acquisition and Modification process.

#### 4.2.2 Methodological framework

There are many potential ways to study OER, and scholars have used several research methods in order to explore OER production. West and Victor (2012), Andersen (2010) and Sclater (2010) conducted reviews of the existing OER literature; Paskevicius (2011) and Cartmill (2013) used case study approaches; and Ponti (2014) used a multi-sited online ethnographic approach.

This particular study was complicated by two factors: my presence as a co-adapter within and coordinator of the project, as well as the fact that the research study was conducted post-hoc, with over a year between the completion of the project and the beginning of data collection. The latter ruled out the possibility of an ethnographic approach, as well as the possible etic/emic complications presented by the first factor as it would have been difficult for me to isolate my role as an outside observer from my role as co-facilitator. Neither was an experimental approach – characterised by control and manipulation of variables to isolate causal relationships (Cohen, Manion & Morrison, 2007) – appropriate, or indeed possible. The OER Adaptation project was initially conceived as a pilot project to explore the feasibility of employing students to support OER production, and experimental methods typically require a predetermined hypothesis to test (Cohen, Manion & Morrison, 2007).

The case study research approach was therefore deemed the most appropriate methodology in this study. Case studies are built on a “constructivist paradigm” (Baxter & Jack, 2008, p. 1), the core assumption of which is the subjectivity of ‘truth’. This paradigm however does not reject all claims to objectivity in the same fashion as more relativist approaches; rather, “[p]luralism, not relativism, is stressed with the focus on the circular dynamic tension between subject and object” (Miller & Crabtree 1999, p. 10). The “close collaboration between the researcher and the participant” (Baxter & Jack, 2008, p. 1) mirrors aspects of the OER Adaptation project’s design (see Section 2.3) in which I served as both coordinator and adapter, and the recognition of the importance of subjective but fallible experiences coupled with an acceptance of an independent reality fits well within the Critical Realist perspective.

Studying the role of student adapters on the Acquisition and Modification of OER must also take cognizance of the institutional culture in which the Modification process takes place. This also lends itself to a case-study approach, as I am not only studying the perceptions or activities of the student adapters or those of the contributing academics, but also the objects themselves, and the system of teaching material production in which they are embedded. Case studies are valuable in that they facilitate asking ‘how’ and ‘why’ questions (Cohen, Manion & Morrison, 2007), and draw on the context in which complex phenomena are embedded to add richness to the analysis (Baxter & Jack, 2008).

I have therefore adopted Cohen, Manion and Morrison’s (2007) model of the case-study, informed by the Critical Realist perspective of Bhaskar (1997), in order to study the process of student adaptation of existing teaching materials into OER. The case study approach also allows for the researcher to make recommendations for future activity; as Cohen, Manion and Morrison (2007) write:

The purpose of such observation is to probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalizations about the wider population to which that unit belongs.  
(Cohen, Manion & Morrison, 2007, p. 258)

It is hoped that this study can provide some insight into OER production initiatives in an institution without an OER mandate, and if students can contribute to the quality of completed OERs. While primarily useful for UCT and future OER initiatives at this institution, the study may also draw useful recommendations for developing-world countries that stand to benefit from OER production and use, but currently lack the financial and/or policy environments that support the models used by the well-resourced OER-producing universities (d'Antoni, 2009).

#### 4.2.3 Open Research ambitions

The subject matter of this research lies in the Open Education sphere. As such, I feel that it is incumbent upon me as the researcher to engage in some level of Open Research – research conducted in the spirit of transparency, accountability and barrier-free access to some of all of the methodology, outputs and data produced during the course of the research (Weller, 2012; Hodgkinson-Williams & King, 2015). However, I do feel that a fully open approach is neither advisable nor particularly valuable in a Masters-level study, given my limited ability to develop new methodological insights and the lack of time to release interim outputs that are both rigorous and worthwhile, and so I will be primarily focused on publishing the outputs openly.

In accordance with UCT's OA mandate, the completed dissertation will be available via the institutional repository (OpenUCT). I have chosen to engage further with Open Research principles by releasing the data, in the form of de-identified interview transcripts (Appendix B) alongside the research.

#### 4.2.4 Participant selection

In total, eight students were involved in the project. Two of these left the project before conducting any work, and a third joined towards the end of the project and adapted relatively little material. These materials are not analysed in this study. Participants in this study consisted of the five student adapters (S1, S2, S3, S4 & S5) who contributed substantially to the project, and four lecturers (L1M1, L1M2, L3M1 & L4M1) who offered their materials for Modification. The adapted teaching materials/OERs themselves are also analysed. As this study focused on a particular project, the participant selection process was limited by the number of students who successfully performed Modification work. In order to obtain the most comprehensive data, the entirety of this group (n=5) was approached to take part in the study.

**Table 3: Student age and educational attainment**

Student adapter	Age	Educational level
S1	21-25	Honours
S2	25-29	Masters
S3	<20	Undergraduate
S4*	45-50	Masters
S5	21-25	Masters

\*S4, as previously noted, was also senior to the other student adapters, with a long period of industry experience before re-joining his department as a Masters student.

Students worked with between two and three lecturers each, across seven departments in three Faculties. Table 4 below illustrates the contributing lecturers to their de-identified departments.

**Table 4: Lecturers and student adapters mapped to UCT Faculties**

	Humanities Faculty				Sciences Faculty		Commerce Faculty
Student	Dept. A	Dept. B	Dept. C	Dept. D	Dept. E	Dept. F	Dept. G
S1	L1M1* Lecturer B**	L1M2***					Lecturer A
S2			L2M1, Lecturer C, Lecturer D, Lecturer E, Lecturer F				
S3		L1M2			L3M1	L3M2	Lecturer G
S4	L4M1, L4M2, Lecturer H						
S5							L5M1

\*L1M1-L5M1 signify those lecturers who contributed materials to the project

\*\*Lecturers A-H signify those lecturers that were contacted by the students but did not contribute materials.

\*\*\*L1M2 contributed materials that both S1 and S3 adapted.

In order to determine suitable lecturers for participation in this study, questions were posed to the student adapters during or after the student interviews (section 4.3.1) to identify lecturers' willingness to share, their prior use of educational technology and their prior knowledge of Open Education and UCT OpenContent. A selection of lecturers across these categories were considered

ideal candidates to be interviewed in order to develop a comprehensive profile of the different types of contributors.

However, lecturer participation was not guaranteed, and so a larger initial selection was made to ensure sufficient respondents. Thus, a purposive sampling method was employed to select research participants (Cohen, Manion & Morrison, 2007). Purposive sampling is the selection of specific participants who are knowledgeable about the phenomenon being interrogated due to their involvement or experience of the situation, activity or practice (Brink, 1996).

Lecturers were subsequently contacted and interviewed for their perspective on the process, in order to determine if their experience of the process confirmed or contradicted the student accounts. In total, 17 lecturers were contacted and 9 submitted materials for Modification, and of those 4 agreed to be interviewed. The decision to employ purposive sampling was made on the basis that contributing lecturers would be more able to speak to the Modification -specific activities than those who were approached by the student adapters but chose not to participate.

### 4.3 Data collection

A mixed methods data collection methodology (Creswell & Plano-Clark, 2007) was adopted in this study, focusing on three primary data sources:

- Interviews with the five student adapters who participated substantively in the Vice-Chancellor's Open Educational Resources Adaptation project;
- Interviews with a selection of lecturers (n=4) who made their work available to the project;
- And an artefact analysis of the eight OERs produced by the above students during the course of project activity.

The motivation for interrogating objects as well as interviewing the key actors in the adaptation process (student adapters and contributing lecturers) was to 'triangulate' the research data. Triangulation is the process of using multiple data points, methods or researchers to enhance confidence in the findings (Patton 1999). Specifically, this study used methodological triangulation (Denzin, 2006), whereby the study used a mixed-methods approach (interviews and artefact analysis) in order to enhance the quality of the data, and to offer "different but complementary data on the same topic" (Wynn & Williams, 2012, p. 803). This is congruent with the critical realist approach that emphasises the fallibility of any single perspective (Bhaskar, 2008).

This process was particularly necessary given that the interviews were conducted long after project activity was concluded and the single perspective provided by the students on the nature of qualitative change may be unreliable. Moreover, triangulation was used to determine the differences between the perception of change and the actual change that occurred, insofar as that was possible to determine analytically.

#### 4.3.1 Student interviews and personal account

Interviews with the students consisted of one-hour semi-structured interviews at a location of the student's choosing. The interviews were conducted between November 2014 and February 2015, due in part to the year-end vacation period between December 2014 and late January 2015. Consent forms were supplied prior to the interview, re-addressed before the interview began, and revisited after the interview had been completed. Once completed, the interviews were transcribed

by myself or a third-party transcriber and anonymised subsequent to data analysis. The anonymised transcripts have been made available upon completion of the final thesis (see Appendix B), and students were informed of this in the consent form process.

As mentioned in Chapter 3: Theoretical Frameworks, I have employed Rogers' DoI Framework as the analytical framework informing the questions students were asked, with the prime focus being the Perceived Attributes of Adoption (see Section 3.5.7). As this framework seeks to understand how new innovations are spread and taken up by a community, it provides a useful lens with which to understand how students performed as OER advocates through the process of OER Adaptation. Questions specific to the qualitative changes made during the Modification process used a modification of Okada et al's (2012) framework as a sub-code under Rogers' concept of 'Complexity'. Additional questions were also asked in the semi-structured and un-structured components of the interview to uncover the social change (Section 3.4) and change agent (Section 3.5.5) factors involved in the Adaptation process.<sup>27</sup>

In my role as co-adaptor as well as coordinator of the project, my own experiences of Modification and negotiations with the lecturers constituted a final perspective although there was no interview process nor attached transcript. Reference to my own perceptions are indicated in the findings.

#### 4.3.2 Lecturer interviews

Interviews with the four lecturers consisted of thirty-minute structured interviews at a location of the lecturer's choosing. Consent forms were supplied prior to the interview, re-addressed before the interview began, and revisited after the interview had been completed. Once completed, the interviews were transcribed by myself or a third-party transcriber and anonymised subsequent to data analysis. The anonymised transcripts have been made available upon completion of the final thesis (see Appendix B), and participants have been informed of this in the consent form process.

The term 'teaching materials' was used in all interactions with lecturers. While terms such as 'educational resources' or 'learning objects' may be used more extensively in the open education literature, 'teaching materials' is less potentially ambiguous and conforms more closely to common-language usage. 'Teaching materials' were used in the interviews with students to distinguish the pre- Modification materials from the completed OER.

#### 4.3.3 Artefact analysis

The VC's project aimed to increase the number of OERs in the UCT OpenContent directory, and these objects form the basis for the artefact analysis component of the study and were analysed for qualitative change. The majority of these objects are slideshows/presentations and word documents, almost always created using Microsoft Office software. The completed objects were uploaded to a secure location in UCT's LMS (Vula) and were made openly available in June-July 2014. Subsequent to the launch of the OpenUCT repository, the OER were transferred to its hosting service, while backups have remained on Vula.

For the purposes of this study, groups or sets of materials rather than individual objects are used as the analytical objects.

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<sup>27</sup> In the interviews, these questions were framed using the concept of 'solicitation', which is synonymous with 'Acquisition' in this study's theoretical framing.

The study initially intended to perform pre- and post- Modification analysis on each of the completed OER, by asking student adapters to provide the initial versions of materials they acquired as well as the final completed OER. Sourcing of the completed OER was unproblematic; however due to the time delay between the beginning of the project (May 2013) and the data collection portion of the research (November 2014 – February 2015) not all of the pre- Modification materials were still available. In addition, some of the materials produced during the project were not wholly adapted from existing materials but collaboratively created and revised by a group of student tutors and lecturers throughout the project duration (see Section 5.1.2). The lecturers' post-project activity on the institutional repository was analysed during data collection in order to determine whether or not they continued uploading materials after the funding for student adapters had ended.

#### 4.3.4 Extant data

The above data sources have been supplemented by extant data about UCT's policy structures that dictate the university's position on IP rights with respect to teaching materials and OER, and usage statistics of the institutional LMS and the OpenUCT platform. These data were gathered through a desktop review of the publicly-available UCT policy documents, and personal communications with the Vula team to ascertain the LMS usage statistics.

#### 4.4 Data Analysis

Three sets of primary data and one set of secondary data were gathered as part of this study. The student interviews formed the main body of data, supplemented by the lecturer interviews and artefact analysis. Both student and lecturer responses were coded according to the expanded conceptual framework outlined in Chapter 3. Student responses were considered the primary data sources while lecturer responses and the insights from the artefact analysis were used as points of triangulation to verify and add richness to the analysis. The extant data will not form part of the core analysis but will be used to supplement, support or contradict the claims made by the students and lecturers in the interviews.

Interview transcripts were subject to "denaturalised transcription" (Oliver et al., 2005, p. 1). Denaturalised transcription aims to represent accurately the semantic content rather than the performative aspects of the interview, as in this form of analysis "accuracy concerns the substance of the interview, that is, the meanings and perceptions created and shared during a conversation" (Oliver et al., 2005, p. 1). The focus is not on capturing a verbatim record of conversation which includes hesitations, filler words or false starts, but on accurately conveying the concepts discussed in the interview.

As this study is not informed by a conversational analysis perspective or other forms of linguistic analysis, I have chosen to perform an additional layer of data cleaning by removing repetitions, false starts and other linguistic errors that do not add to the informational content of the transcripts. Semantic content was not modified as part of this cleaning process. However, as disclosive information that could be used to identify research participants was revealed in the course of the interviews, data from the interviews was subjected to a process of de-identification.

De-identification is the process of removing or masking all information that could be used to identify research subjects (Nelson 2015), to ensure their confidentiality. De-identification protocols, while well-advanced in quantitative social science research, are less well-established in qualitative



research, partly due to the acknowledged difficulty of removing all possible identifiers without compromising the integrity or value of the data (Corti, Day & Backhouse, 2000; Cheshire, 2009).

As this study deal with OER and cognizant of the fact that all UCT dissertations are uploaded to the OpenUCT platform, I decided at the outset the accompanying data would be made available openly upon its completion. This intention was explicitly stated in the consent forms, and specifically addressed at the beginning of the interview process. No participants expressed problems or concerns with this process.

The principle de-identification processes used were *perturbation* and *redaction* (Nelson, 2015). This entailed a process of removing direct identifiers (names) and indirect/quasi-identifiers (departments, departmental positions, etc.). Wherever possible, sentence structure was not modified. The de-identification process involved three steps:

- Lecturers who were directly involved in the project through contributing materials were signified in accordance to their materials, i.e. the lecturer who contributed material set [S1M1] was renamed [L1M1] in the dataset. All such changes are marked with square brackets.
- Lecturers who were approached or peripherally involved in the project but did not contribute materials were given arbitrary alphabetic codes (i.e. Lecturer S, Lecturer T, etc.). All such revisions are marked with square brackets in the dataset.
- Departmental-level identifiers, such as names of departments and courses, were abstracted to the faculty level, replaced with [discipline] or [department] where possible, or redacted. All such redactions or revisions are marked with square brackets in the dataset.  
e.g. “I was able to make the changes without knowing anything about Infectious Medicine” became “I was able to make the changes without knowing anything about [the discipline].”  
Faculty-level de-identification was considered unnecessary.

In order to maintain the authenticity of respondents’ utterances, my preference was to revise rather than redact sensitive information. *Redaction* (marked by [redacted] in the cleaned data) was however used where revision was not practical.

#### Artefact analysis

Object analysis consisted of comparing all of the final OERs to the original teaching materials as sourced by the student adapters, employing the modification of Okada et al’s (2012) OER Reuse framework outlined in section 3.5.6. This framework offers a valuable way of interpreting how an object is transformed in the OER Adaptation process. Evidence from the analysis were compared with student accounts of the editorial changes they made on the objects as a primary data source, as well as for validation purposes. Furthermore lecturers’ accounts of the Adaptation process are used to provide cross-comparative data from a third perspective.

### 4.5 Analytical Framework

I have used Rogers’ DoI model, supplemented by Okada’s Adaptation framework to elaborate the ‘Complexity’ factor of innovation, as the basis of the analytical framework used in this study.

For the purposes of this study, the factor of Compatibility was found to be too broad to sufficiently describe the range of compatibilities OER had with existing lecturer practice. The sub-factors of *Practice*, *Time* and *Technical Competence* were identified as important sub-factors that more

accurately describe the ways in which student OER adaptation is or is not compatible with existing lecturer practices. The triangulation of these three sub-factors will ideally be able to shed light on the underlying values that influence OER adoption.

#### Compatibility (Technical)

Technical Compatibility refers to lecturer and student familiarity with (and acceptance of) the technological and legal aspects of openness, such as open licensing, online accessibility and metadata, and competency with editing software. These aspects are not all unique to Open Education, as many of them emerged out of digital and distance education, with the exception of open licensing. An assumption made during the scoping phase was that academics' willingness to engage in the project would be positively correlated to their familiarity with these competencies, tools and processes. Much of the 'openness' of OER requires some degree of familiarity with how learners use ICTs and what needs to be done to traditional contact-based teaching materials to optimise them for digital audiences.

#### Compatibility (Time)

Another of the project's core assumptions about the potential value of student adaptation was that lecturers, even if aware and willing to engage in OER production, often do not have the time to develop and use the skills needed to negotiate open licensing and copyright clearance. Determining to what extent lecturers feel that student involvement in OER adaptation saves them time, and if this influences their decision to offer their materials for adaptation, is thus an important component of this study. An additional avenue of exploration included the time lecturers spend on developing their materials to determine if the potential cost-saving influence of the student adapters could be perceived as valuable.

#### Compatibility (Practice)

Lastly, this study (and the scoping of the OER Adaption project) assumes a relationship between already existing open practices (publishing in OA journals, sharing materials on online fora, prior production of OER, etc.) and willingness to contribute materials for OER adaptation. The rationale for this assumption was that prior (successful) experience of Open Education would encourage lecturers to share further, and the depth of their engagement in the process (such as making informed choices about licensing, accepting pedagogical/structural changes facilitating online learning) would be improved.

A secondary assumption was that participation with forms of digitally-mediated education or other forms of online engagement would also influence a lecturer's willingness to adopt OER. This assumption was based on the understanding that many of the benefits of OER (mass reproducibility, accessibility, etc.) are founded on OER's digital nature, and lecturers who were already engaged with online education modes might more easily understand some of the pedagogical and technical affordances inherent in OER production. An example of this general compatibility of existing practice with OER adoption is the use of Vula. Extensively used at UCT with over 4600 staff members defined as "active users" (CILT, 2015, p. 6), Vula has a range of functions used to varying degrees by staff, but one of its prime functions is to serve as a place to store and share educational materials. Given that this functionality is similar to an OER repository in many ways (but lacking the licensing and open-by-default characteristics), an implicit project assumption was that lecturers with high Vula usage rates would be more open to OER adoption.

The coding schema used in this study, along with example utterances, is shown in Table 5 below:

**Table 5: Sample coded utterances**

Concept	Code	Sample utterance	LineID
Homophily – Discipline	Hom-Dis	Approaching my [Commerce Faculty] lecturers was pretty comfortable as I had a strong relationship with them already. Even though it didn't result in many materials, that was easy. The difficult one was [S1M2 course] because I didn't have any idea who they were or what they did.	S1 37-39
Homophily – Experience	Hom-Exp	I think it would have been easier had I been a Masters student, because I would have had a closer relationship with the lecturers and I would have had access to more materials via referrals from them specifically.	S3 51-53
Relative Advantage	Rel	I think that was L2M1's motivation, just to get her slides online so that students could just look them up online, students that missed the course or whatever, she just wanted to extend her level of teaching.	S2 177-179
Compatibility – Time	Cmp-Tim	To some degree, they felt that they'd want supervision of what actually came out and so their schedules kept them busy on their parts, they thought "I don't want to add this on top of the workload that I already have".	S3 76-78
Compatibility - Technical	Cmp-Tcn	I think more in the science and engineering they took more easily to the idea maybe because they were in a more technical field to begin with, so the idea of bringing something technological was more appealing to them, maybe?	S5 75-77
Compatibility – Lecturer Practice	Cmp-Pra	[L4M1] [had some awareness of Openness], yes. Because he'd been in some previous work. [L4M2] was, because he'd seen the Faculty presentation, he came to me with some awareness. I think he was also more aware of lectures that were presented or broadcast online.	S4 91-93
Complexity – Reauthoring	Cpl-Aut	So, I think if I recall I just edited for mistakes and to see if there was anything I could add content-wise because I had done [the course] myself, as part of the skills group, and maybe change the slides format, and I didn't do anything spectacular.	S1 132-134
Complexity – Resequencing	Cpl-Seq	I wouldn't be really so comfortable in doing that. It depends on the subject matter. If the topic was very complicated or which wasn't very, very basic, then I wouldn't feel comfortable doing that. But if it was a very basic statement, then... sometimes the slide is just repeated, by mistake...	S5 199-201

Complexity – Contextualising	Cpl-Con	Some of the slides were introductory slides for the course, so that someone outside of the course wouldn't benefit from, so I removed markers such as assignment due dates and stuff like that.	S1 161-162
Complexity – Summarising	Cpl-Sum	It's a habit of mine; if something goes over to a second page, I try and see how I can cut it down.	S4 183
Complexity – Redesigning	Cpl-Des	I did do grammatical corrections in [L3M1]'s work, he did not seem to mind. I did have to change mathematical examples and make corrections to that, maybe if the sum or the answer was wrong, I would change that and he did not seem to mind. I do think that it would have been more of a challenge if it was a course or something that the lecturer was teaching, I think I would have actually struggled telling them as a first year that "hey, this might be wrong."	S3 195-199
Complexity – Copyright Clearance	Cpl-Crc	For most part it was the images. I thought he used quite a lot of images. So, I would go try and look for the image, see if it was open licensed, and if not then change it, or if I couldn't find the license then just change it to be safe.	S1 163-165
Image	Img	[O]penness equates to exposed-ness for some people. You know, I understand, say if maybe I was a lecturer and I prepared my own material and now I make it open it exposes it to criticism from others.	S5 144-148
Resultant Demonstrability	Res	[T]hey didn't really seem to be very overly enthused about [tracking usage metrics]; initially it was like "oh yeah you can do this with that" but then there wasn't really any follow-up after that. I guess maybe it's not because it's not a scholarly paper that they need to get recognition for.	S5 238-240

Data was coded either positively, denoting a response that indicated that the adoption factor was influential, or negatively, in that the identified adoption factor was not influential. Table 6 below maps the research questions to the analytical frameworks and data sources that were used in this research:

Table 6: Summary of research questions, concepts and data collection methods

Research question	Analytical concepts	Data collection method
What do student adapters identify as the key factors in lecturers' willingness to engage in OER Adaptation? [RQ1]	<b>Relative advantage</b> – Degree to which an innovation is perceived as being better than the idea it supersedes <b>Compatibility</b> – Degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters <b>Image</b> – Degree to which use of an innovation is perceived to enhance one's image or status in one's social system <b>Observability</b> – Degree to which the results of an innovation are visible to others <b>Visibility</b> – The degree to which the results of an innovation are visible to others <b>Resultant demonstrability</b> – Ability to measure, observe and communicate the results of using the innovation <b>Homophily</b> – the degree to which the change agent and potential adopter are similar	5 student interviews, 4 staff interviews
What do the contributing lecturers identify as the key factors in their willingness to engage in OER Adaptation? [RQ2]	<b>Relative advantage</b> – Degree to which an innovation is perceived as being better than the idea it supersedes <b>Compatibility</b> – Degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters <b>Trialability</b> – Degree to which an innovation may be experimented with on a limited basis <b>Image</b> – Degree to which use of an innovation is perceived to enhance one's image or status in one's social system <b>Observability</b> – Degree to which the results of an innovation are visible to others <b>Visibility</b> – The degree to which the results of an innovation are visible to others <b>Resultant demonstrability</b> – Ability to measure, observe and communicate the results of using the innovation	4 staff interviews
What changes to lecturers' teaching and learning materials were made by the students, and in what ways did these changes influence the quality of the materials? [RQ3]	<b>Complexity</b> – Degree to which an innovation is perceived as relatively difficult to understand and use <ul style="list-style-type: none"> <li>- Copyright clearance &amp; IP management</li> <li>- Reauthoring</li> <li>- Redesigning</li> <li>- Contextualising</li> <li>- Resequencing</li> <li>- Summarising</li> </ul>	5 student interviews, artefact analysis

#### 4.6 Dealing with validity and bias

In order to address issues of bias, I have endeavoured to follow Maxwell's (2008) seven-point validity checklist for qualitative research, summarised below:

- 1) *Intensive, long-term research engagement* – repeatedly engaging with research participants in order to develop a fuller understanding of the situation.

Validity in terms of sampling has been accounted for in the following ways: all but one of the students who were substantively involved in the project were interviewed (two students who left the programme before project activity commenced and the student who worked only briefly on the project were not interviewed), and all artefacts produced by the above five students in the course of the project were analysed. Unfortunately, due to time constraints, students and lecturers were only interviewed once, after the project had ended.

- 2) *Rich data through comprehensive transcription* – transcribing interview transcripts verbatim from recordings rather than notes.

All interviews were recorded, and the transcripts from both students and lecturers were produced verbatim and reproduced in Appendix B.

- 3) *Respondent validation* – soliciting feedback from participants about the data that the researcher has collected.

After the interviews were transcribed, participants were given the opportunity to review their transcripts and make comments or revisions if they felt these changes would more accurately reflect their position, which were incorporated into the final published transcripts.

- 4) *Searching for discrepant data* – identifying and analysing of discrepant or negative data.

During coding, both positive and negative responses were sought out and coded appropriately in order to develop a multi-faceted picture of the Acquisition and Modification process.

- 5) *Triangulation* – collecting evidence using a variety of techniques and from a variety of sources.

In order to strengthen validity, data source triangulation was employed. In asking research questions around the quality of the change in the OERs being studied, the artefacts, student adapters and lecturers have all been used as information sources in order to “triangulate” (Scott, 2005, p. 4) and thus obtain the most accurate representation of the Adaptation process. As this study is investigating perceptions of quality, participant bias was expected. Thus, I endeavoured to represent the different participants' perceptions of the Adaptation process as accurately as possible. My own bias in the artefact analysis is mitigated by Okada et al's (2012) framework, which offers a way to identify the changes made to resources without making value judgements about the completed OER.

- 6) *Quasi-statistics* – using simple numerical indicators to make explicit the semi-quantitative nature of the research findings.

A numerical indicator of how often each Perceived Attribute of Innovation appeared during coding has been added, and the findings have been discussed in descending order of the frequency of responses.

- 7) *Comparison* – comparing the findings to other studies in order to contribute to the interpretability of the study.

(Maxwell, 2008, p. 244-245)

This study seeks to fill a gap in the literature, specifically that of the role of students as OER adapters. As such, there is not a great deal of directly comparable literature on the same topic. However, researchers such as Cox (2016) and Masterman (2015) have investigated lecturer attitudes towards OER contribution; Alezivou (2012) and Martin and Baptista Nunes (2012) have explored the role of incentivisation in OER initiatives; Knox (2013) and Sclater (2010) have looked at OER pedagogy; and Pitt (2016), Cook-Sather (2014) and Bovill, Bulley and Morss (2011) have investigated student co-creation of curriculum. A comparison of where my findings intersect, contradict or conform with theirs will be undertaken in Chapter 6.

#### 4.6.1 Reactivity and bias

During the course of project activity (May 2013 – April 2013), regular meetings were held between me as the coordinator and the student adapters, in which individual progress, problems and successes, and future milestones were discussed. While there was a degree of collaborative agenda setting, specifically with regards on the best ways to approach lecturers, I drove the majority of the discussion in my role as coordinator. As such, reactivity, or the effect of the researcher and the researcher's agenda on the research participants (Maxwell, 2008), is of particular concern to this research.

As an adapter on the project, I inevitably bring elements of my own experiences of the Adaptation process to interactions with the students and lecturers. In order to ensure that the effects of myself in setting the agenda were controlled, each interview with the student adapters began with an unstructured period of free discussion about the experiences of Acquisition and Modification within the institution. This was intended to elicit individual insights and allow the participants to shape part of the discussion before the interview questions were asked.

The semi-structured nature of interviews with both the students and lecturers was chosen in order to allow the insights of the adapters and lecturers to be expressed naturally, without being unduly constrained by a fully structured interview process. This was intended to minimize the effect of reactivity – the effect of the interviewer on the research subject (Maxwell, 2008). However, as the original project was scoped as an intervention exercise and students had to be trained on areas in which they had only partial prior knowledge (copyright and open licensing, acquisition techniques), I recognise that my role as coordinator played some part in shaping both project activity and students' perceptions of openness.

Prior to conducting the primary student interviews, I piloted an abridged version of the interviews with two staff members who had undertaken similar Adaptation work, one in CILT and another from the Faculty of Health Sciences. These pilot interviews were conducted in order to test my demeanour as an interviewer, as well as solicit any feedback from the interviewees about interesting

insights the interview questionnaire may have missed. These preliminary interviews resulted in additional questions being asked in the student interviews.

While the experiences of the pilot subjects would not match those of the OER Adaptation project adapters exactly, the pilot interviews informed my interview style, as well as the structure and format of the interviews. The content sourced from these pilot interviews does not form part of the analysis for this study.

Lastly, bias was also addressed by having my supervisor view and independently code a sub-set of data prior to the writing of the Discussion chapter. The data review surfaced the importance of coding the data positively or negatively.

#### 4.7 Research ethics

This research was conducted according to the ethical principles defined in the UCT code of ethics (UCT, 2014) and the School of Education Research Ethics Policy (2014). These documents state that research should be conducted:

- with scholarly integrity and excellence
- with social sensitivity and responsibility
- with respect for the dignity and self-esteem of the individual and for basic human rights
- with reference to clearly specified standards of conduct and procedures ensuring proper accountability.

In accordance with these principles, the following measures were undertaken in order to ensure that the research was conducted fairly, ethically, accountably, and with respect for the dignity of all research participants.

##### 4.8.1 Relationships with students

In my previous position as coordinator of the OER Adaptation project, I held a degree of authority over the student adapters in terms of responsibility for payment and management, as well as being a colleague in the Adaptation process. However, data collection via interviews with the students occurred after the project had ended, thus mitigating the potential coercive power. No financial incentives were offered to student adapters for their participation in this research.

##### 4.8.2 Relationships with lecturers

There were no anticipated ethical concerns regarding interviewing lecturers. Interviews were conducted after project activity had ended and thus lecturers had no incentive to participate in order to have their materials adapted or access any further funding.

##### 4.8.3 Ethical considerations regarding the object analysis

The 'open' nature of the subject material complicated the ethical process. Research focusing on OER imposes a level of complexity above and beyond the standard ethical requirements dictated by the UCT Code of Ethics in Research (UCT, 2014). The completed OER under analysis were released on the UCT OpenContent repository and as such they are accessible for open public viewing. Names of the contributing lecturers and the student adapters are mentioned in the item records in the OpenUCT repository. However, in the analysis, all identifiers linking lecturers (or students) to specific objects have been removed in the course of this analysis, and the analysis itself abstracted so that individuals cannot be directly connected to specific objects.



#### 4.8.4 Consent

Consent forms were provided before the interviews and revisited at the end of the interview to ensure that participants are informed of their rights as research subjects (see Appendix C – Consent Forms). All personal data from lecturer, student and artefact analysis has been kept confidential, with all personal identifiers removed prior to the research data being made public. The consent forms clearly stated that the interview transcripts would be released alongside the completed dissertation as open data.

#### 4.8 Summary and emergent issues

This chapter explored my selection of my research methodology and its ontological grounding, the participant selection process and rationale, and the process of data collection through interviews and artefact analysis as well as the data analysis process and framework drawn from Rogers (2003) and Okada (2012).

I have also explained my attempts to enrich the quality of the data and the confidence in the eventual findings through the process of ensuring data validity, as well as my adherence to my institution's ethical clearance policies. The following chapter will discuss the findings of the study, using the theoretical and methodological frameworks introduced in Chapters 3 and 4.

## 5. Findings

This chapter discusses the findings of the case study. Section 5.1 – Acquisition Vignettes is comprised of three brief sub-sections that describe the Adaptation process in narrative form. Section 5.2 - Perceived Attributes of Innovations highlights the insights that emerged from the data, focusing on the 'Acquisition' process, using Roger's Perceived Attributes of Innovations ranked in terms of the frequency in which they appeared during the coding process of the student and lecturer interviews. Section 5.3 reports upon the Acquisition process from the student perspective, complemented by the artefact analysis. Section 5.3 discusses logistical issues that arose as important factors ancillary to the theoretical framework employed in this study. Section 5.4 provides a brief summary and introduces Chapter 6 - Discussion.

### 5.1 Acquisition vignettes

The following three sections describe OER adoption scenarios that illustrate specific Acquisition factors. Case 1 represents the 'standard' Acquisition experience, aggregated from three student experiences. Case 2 illustrates a scenario in which the project ultimately failed due to increasing lecturer concern over issues of representation. Case 3 illustrates some of the affordances of an Acquisition scenario where the student was involved during the production process of the to-be-adapted materials. These case studies illustrate some of the core Perceived Attributes of Innovations that influenced OER adoption at UCT.

#### 5.1.1 Case 1 – Delegated Adaptation

In the OER Adaptation project, S1, S3 and S5 had similar Adaptation experiences and serve as a baseline against which the other two case studies can be compared. Their experiences illustrate the Acquisition process and some of the more common reasons for lecturers' participation in the OER Adaptation process (or lack thereof), and some of the key elements that were most and least important in a successful Adaptation experience.

These students entered the project without a pre-identified body of materials to adapt, and spent much of their time identifying potential OER contributors, contacting them, and acquiring teaching materials for Adaptation. While advised to initially approach lecturers with whom they were familiar and whom they believed had high-quality material based on their personal experience that could be adapted for a broader audience, all three students contacted lecturers outside of their specific departmental affiliations, and S3 and S5 moved outside of their respective faculties in order to source suitable material. While the sample size is too small to make generalisations, there did not seem to be a discernible relationship between the students' disciplinary background and their ability to acquire or adapt materials from other disciplines; S1 and S3 both adapted materials from a course they had never taken, and S5 had positive responses (though no actual materials) from lecturers in faculties other than his own.

All three students were under 22 years old, younger than S2 and S4, and believed that students with greater seniority would have an easier time acquiring materials from lecturers:

*I think if I had been Masters it would have been easier, because as you said you would have more time to develop those relationships as you see them more often, not on an equal level, but more equal.*

(S1 66-68)

*I think it would have been easier had I been a Masters student, because I would have had a closer relationship with the lecturers and I would have had access to more materials via referrals from them specifically. Basically for me it was targeting the lecturer for specific material and I wasn't able to get referrals from them because they would give me whatever they were working on, not what I was being assigned. So I think if I had been Masters I think a closer relationship with the lecturer would have helped because I would be sort of in the in circle of the department as a post-grad student.*

(S3 51-57)

*it would probably have been more easy if I had been like a doctoral student just because I think that, because obviously my emails sort of had like my title, Masters candidate and stuff... maybe that gets taken more seriously, so if it had been PhD candidate, that would have been taken more seriously, so I feel that definitely more people would have replied (to emails).*

(S5 88-94)

During Acquisition, all three students encountered resistant lecturers who ultimately did not choose to contribute, as well as those who were keen to contribute their materials for Modification into OER. The students reported that the lecturers who did not contribute expressed a range of concerns, from a lack of time to concerns about their reputation:

*(O)ne feeling I had was that... openness equates to exposed-ness for some people. You know, I understand, say if maybe I was a lecturer and I prepared my own material and now I make it open it exposes it to criticism from others. I do feel that academia to some extent, I don't know about South Africa but in some circles it's very competitive. If they're in the same field, could be like "oh yeah I saw your slides, they seem very juvenile."*

(S5 143-148)

Students reported that their unsuccessful Acquisition attempts were mostly due to a lack of lecturer time (n=6). S3 (82-85) reported that one lecturer was deeply concerned about the quality of the final project and its impact on his reputation (see Image, below). They also noted that many lecturers did not respond well to a cold-calling strategy where the initial contact was through email, but responded better to face-to-face contact.

All three students worked with lecturers who had previously contributed to UCT OpenContent, while S1 and S3 also worked with first-time OER contributors who had been engaging with online education. All three had relatively low contact with their respective lecturers after Acquisition, adapting the materials with little (S3)-to-no (S1 & S5) input from the lecturers. The confidence and existing technical proficiency of previously-contributing lecturers appeared to streamline the Modification process:

*Yeah, with her it was like, it was very leaf-through, she didn't really - she just told me as long as the core was similar... it was mainly like she was very free to accept any changes needed to make it available ... she was very free about the kind of changes I needed to make.*

(S5 213-215; 219-220)

*Ja, it was mostly “you do it, come back if you encounter any problems with the actual material, if you do not understand something” type of basis they wanted me to come back and consult with them, but for the whole process he was basically hands off, like come back to me if you have a problem with the content, I can help you whatever you’ve done. I found that quite relieving on my part, it allowed me to play around with the material.*

(S3 92-96)

Licensing was agreed-upon beforehand in all cases during the Acquisition process, and all of the lecturers involved had some understanding of open licensing before the initial contact was made. This knowledge was variable; some lecturers had engaged in OA publication, while others (such as L5M1) had previously contributed OER.

The cases above were characterised by a fairly straightforward, largely hands-off experience from the lecturers’ perspective. However, not all Adaptation scenarios proceeded in this manner. S2’s case, below, illustrates an Adaptation case with an intensely, yet irregularly-involved lecturer and her increasing level of concern over the materials.

#### 5.1.2 Case 2 – Reputation-influenced Adaptation

Unlike the other student adapters, S2 joined the project in December 2013 seven months after the project had begun, after his interest was piqued during the public Hackathon the team held in October 2013. At the time S2 was a third-year student in the Humanities faculty, exploring postgraduate options in two separate departments, and from interacting with the academic staff believed that there were several academics who would be willing to share their materials, if given the proper incentive. S2 entered the project with some knowledge of the Open movement, but with more awareness of OA materials than of OER.

S2 began work on the project by approaching lecturers in three departments. He quickly eliminated one of them based on the nature of their material, and instead focused on approaching lecturers from the other two departments as he had completed his studies in the first discipline some years prior to the project work and felt his relationships with their lecturers were stronger. While the feedback from the second discipline’s lecturers were positive, time constraints on their side meant that they could not participate in the project within the timeframe available.

In fact, time constraints in general played a particularly important role in S2’s work. The future of the OER Adaptation project was uncertain when he joined, as it was only initially guaranteed to last until the end of 2013. The imperative to acquire materials quickly and work on them as intensively as possible within that timeframe meant that S2 did not have the luxury of developing long-term relationships with the lecturers of his choice, and after his initial attempts were not immediately successful, he began working on video lectures previously acquired by the student coordinator, produced by L2M1.

Logistical factors further complicated S2’s work with L2M1, such as the scheduling difficulties due to L2M1’s attendance of conferences and taking a sabbatical during project activity. The difficulties in establishing regular face-to-face contact time resulted in frustration on behalf of the student adapter, who reported that over time L2M1 became increasingly concerned with the quality of the completed OER, in particular, the video quality and their representation as a lecturer:

*[L2M1] was overly worried that lecturers and potential recruiters and somebody that she might want a job from, that somehow it would get linked back to her if she said something that was stupid or incorrect or potentially even biased or dangerous, she doesn't want it in there. And this feeling grew over time, with edits.*

(S2 184-188)

The irregular nature of the contact also resulted in a great deal of repeated work as confusion over version control was compounded by L2M1's increasing level of scrutiny of her representation.

Technical constraints (lack of quality video editing software and poor video quality from the original recorded lecturers) noticeably slowed the rate of work due to software crashes and extra time being devoted to sharpening and cleaning the video files, inasmuch as that was possible. These technical shortcomings also exerted upon the Modification process as L2M1 expressed dissatisfaction with the visual quality of the final videos (S2 340).

Ultimately, S2's work on the project did not lead to an increase in the number of UCT OER. While he did edit numerous video lectures and enhance them with slides and other supplementary content, L2M1's increasing sensitivity to representational issues led to much of the work being discarded due to these 'Image' concerns. While four video lectures were completed and uploaded, the final OER were taken down after the contributing lecturer requested them to be removed after UCT OpenContent transitioned to OpenUCT, and the videos subsequently became much more discoverable and the lecturer more anxious about her public reputation.

### 5.1.3 Case 3 – Strategic approaches to Adaptation

S4 worked within a Humanities faculty department on two separate sets of materials – a skills development series (S4M1) that was believed to be valuable to all Humanities students, and a specific semester-long course (S4M2) that was being discontinued, but which the lecturer still wanted available for review and comment. S4's case proved particularly interesting in that the skills development materials were identified for Adaptation prior to the Adaptation project, and that these materials were still partially under production throughout the course of project activity.

S4 worked and studied within a department that engaged strategically in online and Open Education strategies before the OER Adaptation activity began. The lecturers with whom S4 worked were therefore aware of both online educational tools and the difference between online education and Open Education, and engaged deliberately with both for different contexts. The skills development series was commissioned when the educational development unit within the department identified the need to develop critical literacy, essay- and exam-writing skills, research skills, and other core competencies outside the direct disciplinary ambit of its undergraduate curriculum. These materials were developed by the departmental tutors with oversight from two short-term contract academic staff, and took the form of presentation slides and written documents aimed at both undergraduate students and their tutors, with additional material and pedagogical guidelines being provided to the latter group to assist them in employing the materials most effectively. The OER Adaptation project offered a source of funding to further develop these materials and simultaneously make them open to students outside of the department. The materials were thus designed with openness in mind rather than adapted as OER after they were already being used.

While the materials were developed for a specific discipline's undergraduate students, the skills focused on in the materials were broadly applicable across a range of Humanities and Social Science disciplines. Therefore the decision was made to design them in such a way as to be relatively discipline-agnostic, and thus re-usable by other departments or institutions in their own skills development endeavours. When questioned about the possible extended audience for the materials, S4 and the lecturer-in-charge of the project indicated that other audiences, such as high-school teachers, could also benefit from the materials, although they were not written specifically with that audience in mind.

Despite this engagement in OER, the host department was not an uncritical adopter of online education strategies. After experiencing a decrease in lecture attendance after supplying lecture notes and slides via UCT's LMS (Vula), the department chose to limit what course materials it made available electronically. Specifically, the department made a commitment to release supplementary material that supported the content delivered in the lectures, but not the course content itself, as a strategy to maintain lecture attendance, which they felt was a core part of their pedagogical strategy:

*... because a lot of what's presented is presented verbally, and there is a desire to ensure that students attend lectures, because the educational process isn't just watching a lecturer, it's engaging in the debates, asking and being asked questions. There's a concern amongst some lecturers that providing the material might allow some students to think this is a shortcut to the degree.*

(S4 73-75)

While this could have impeded project activity, certain members of the department chose to engage in sharing OER in a strategic fashion, by sharing materials which would not compromise their students' lecture attendance. These materials were designed to summarise or add additional context to the main content, which was restricted to the face-to-face lectures:

*So for example there is one lecturer who is trying to adapt the way in which ... because students study in very different ways, what she's very pointedly doing is, lectures have very different slides. Some are put up on the system, but some aren't, so that students can't guarantee that they will be, but whenever she feels that something's really critical, like an introduction to a theory, that will go up. But if they really want to understand the depth of it, they have to attend the lecture.*

(S4 79-83)

These materials were still under development by a group of departmental tutors with oversight from the contract lecturers for the duration of the project activity, which allowed for a rather different process of OER Modification. As opposed to the other materials in the project which underwent a process of mostly surface-level Modification (copyright clearance, grammar and spelling corrections, 'cosmetic' formatting), these materials had pedagogical and structural input during their creation phase.

S4's work with the S4M2 materials, by contrast, only consisted of Modification work, as the pedagogical content framing the course had been completed long before. The Modification activity therefore took on a much more similar pattern to the other adapters' Modification work, focusing

on Redesigning. The S4M2 course was released on the understanding that the true value of the course came from the debates and conversations surrounding the materials, and therefore releasing them as OER was not seen as threatening student attendance:

*(T)here was no thought given to the idea that people might just take those materials and just read them and skip lectures, because that would not give you sufficient understanding to really get into it, you need participation and discussion. So that resource was put out there to inspire debate, not to replace a course.*

(S4 131-134)

Additionally, the lecturer who created the S4M2 materials desired two additional functions made possible by making the materials into OER: a curatorial space to ensure long-term preservation of the materials, as the course was being discontinued within the department; and an engagement mechanism, such as an online forum with the lecturer's contact details, so as to allow for feedback and commentary on the materials themselves.

*For [L4M2]'s [S4M2] course, the reason for getting that online was that it was probably the only such course in the world. So there was a sense that it was the only course of its kind, and gets a lot of interest, particularly from US students. There was also a sense when because curriculums change, and if there was ever a time when it wouldn't be taught, it would need to be stored somewhere like OpenUCT where it could live on.*

(S4 122-127)

*I think it should also be said that L4M2] was very keen that his contact details were on there, because it was meant to inspire debate and discussion so he wanted to be available for discussion.*

(S4 140-142)

The second desire could not be provided directly by the OpenUCT platform. While OpenUCT does not provide forum functionality, the underlying reason for these requests appeared to be a desire on behalf of the contributing lecturer for the materials to continue being both accessed and discussed, as a form of cementing their academic legacy.

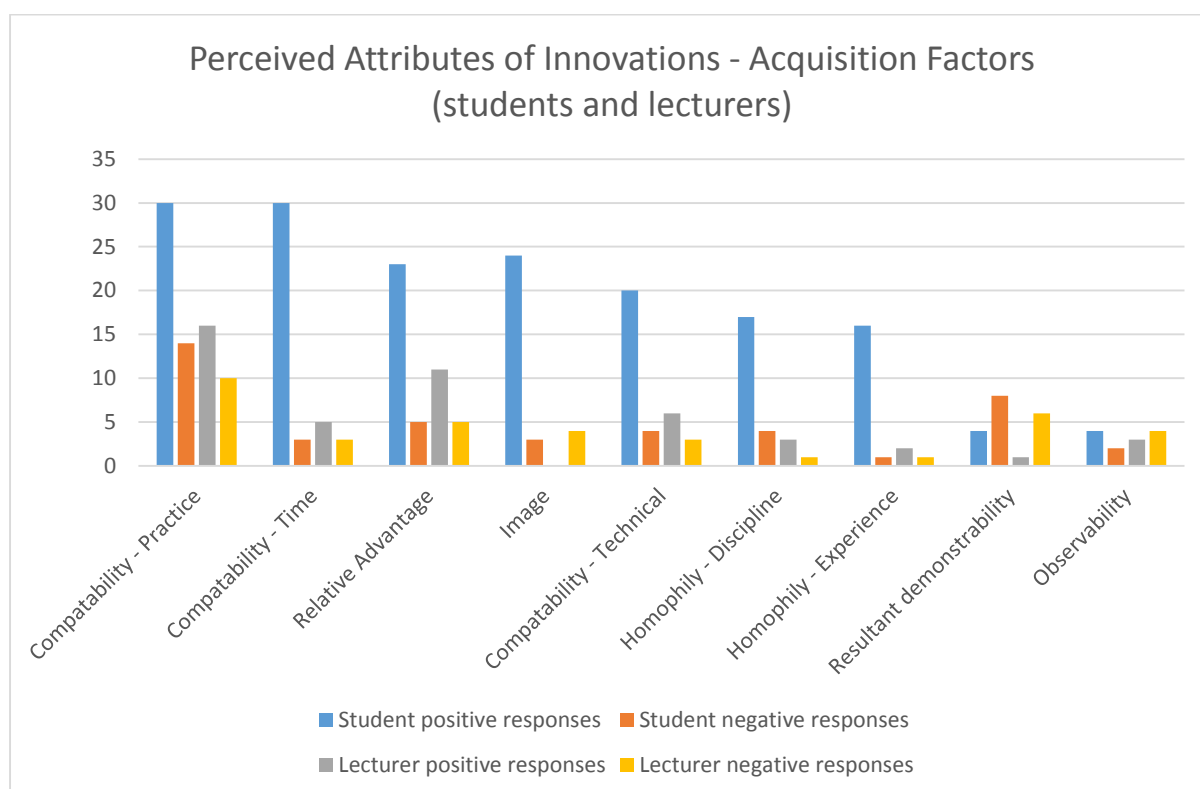
While the decision to release the S4M2 course content was atypical given the departmental sharing strategy, the reasoning behind the approach was similar: the materials were made available with explicit acknowledgement that they did not comprise the full value of the course, and that they were intended to serve as highlights of the department's intellectual capital and not substitutes for the in-person educational experience. Furthermore, as a discontinued course, the in-person experience was no longer an option, and so sharing the materials did not constitute a conflict of interest with the departmental policy.

## 5.2 Perceived Attributes of Innovations

The above case studies give a narrative illustration of some of the key factors influencing OER adoption that were identified in this study. The following section reports on the frequency in which these factors, drawn from Rogers (2003) and Moore and Benbasat (1991) appeared in the qualitative data. The transcripts of the student interviews provided the basis for these findings, supported by the transcripts of the lecturer interviews.

Adaptation, previously mentioned as a theoretical framing device, covers a wide range of activities broadly separated into *Acquisition* and *Modification*. As noted in Chapter 3, Acquisition covers the Compatibility, Image, Relative Advantage, Visibility, Homophily, Resultant Demonstrability and Observability components of Rogers' DoI framework. Modification focuses primarily on Rogers' Complexity factor, sub-coded according to Okada et al's (2012) OER framework. As Acquisition is a necessary requirement for Modification to take place, this section begins with a review of the Acquisition factors from both student and lecturer perspectives, addressing (RQ1) and (RQ2), followed by the student reports on the Modification process as compared to the artefact analysis, addressing (RQ3).

Figure 7 lays out the 'Acquisition' Perceived Attributes of Innovations as identified by students and lecturers, from most frequent to least frequent.



**Figure 7: Frequency of Acquisition factors**

### 5.2.1 Factors influencing OER Acquisition

In order to address the research question: *"What do student adapters identify as the key factors in lecturers' willingness to engage in OER Adaptation?"* (RQ1), students were questioned about the nature of their Acquisition and Modification activity. The focus of these questions was not on the Modification work itself but on the factors (such as IP knowledge, sufficient technical skill) that influenced how willing and able lecturers were to engage in the OER project and commit their materials for Modification. These factors are discussed in order of how frequently they appeared in the student interviews. The four lecturers who agreed to be interviewed were then interviewed for their perspective on the Acquisition process and their answers contrasted to the student accounts to allow for triangulation.



The focus of the Acquisition findings focuses primarily on the successful Acquisition attempts, but some references are made regarding the unsuccessful attempts as lecturers' reluctance to participate illustrates some of the factors that disincentivise academics from contributing OER.

#### *Compatibility – Lecturer Practice*

During the interviews, students were asked questions to gauge their contributing and non-contributing lecturers' existing online and open sharing practices. These practices were assumed to predispose lecturers to be more willing to contribute materials as they were familiar with the concept of sharing openly and in developing materials for online audiences.

The lecturers' existing engagement with forms of open and online learning were expressed by the students as most influential of all Perceived Attributes of Innovations influencing lecturers' willingness to offer materials for OER Modification – there were 46 positive counts and 24 negative counts for Compatibility – Lecturer Practice in the data.

**Table 7: Factors influencing OER Acquisition - Compatibility - Lecturer Practice**

<b>Compatibility – Lecturer Practice</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	30	14
Lecturers	16	10
<i>Total</i>	<i>46</i>	<i>24</i>

As OER is still a fairly novel and often-misunderstood innovation (specifically with regards to the difference between sharing and open sharing), other forms of online and digital education activities were included as proxies for OER-compatibility. As such, responses that indicated a lecturer's familiarity or awareness and use of digital and online education practices (putting teaching and learning materials onto the institutional LMS, Vula, engaging with students via online forums, publishing in OA journals, and so on) were coded as *Compatibility – Lecturer Practice* factors. A quotation from S2 illustrates the potential congruency between these other open practices and OER adoption, even for those who are not entirely sure what OER was:

*I don't think they truly knew what I was talking about. They knew it was all like, 'I used open source software', they understood that, as in free, anyone can edit it, that kind of software, a great thing, but I didn't want to lead them down a Wikipedia pathway either. They didn't truly get it, but they knew about free education being offered by universities, they'd all come across that notion, offering courses for free, offering subject matter for free, offering education tools for free online.*

(S2 162-167)

Similarly L4M2, according to S4, was “more aware of lectures that were presented or broadcast online” (S4 92-93) which may or may not (depending on their licensing) have been OER.

Awareness of these other forms of open and online education did seem to influence which lecturers joined the project. L1M1, L3M2 and L5M1 had all shared OER via OpenUCT prior to the project; L1M2 had shared many OA materials on the repository before being approached to share OER; and

L3M1 was deeply involved in a subject blog. Of the contributors, only L2M1 had not previously engaged in some form of open education, but she was an intensive user of Vula with ample recorded video lectures.

Many of the negative responses were in relation to Department A. This department's case was unique in that their sharing strategy was to tightly control which materials were available via which means, both electronically and face-to-face. Vula was seen as a communication platform and used to share supplementary teaching materials (S1 97-99). S4 supports this assertion of calculated sharing with anecdotes of how lecturers share only partial content online, requiring students to attend lectures in order to receive the full pedagogical experience (S4 79-93).

The Interviews with L1M1 and L4M1, both contract lecturers within Department A, painted a somewhat different picture. L1M1 claimed that the department in fact did not have a culture of sharing (L1M1 54-57) and that their efforts both to produce the materials and to share them as OER were given tacit permission, but little to nothing in the way of direct support. L4M1 went further and stated that:

*There always was sort of negativity within the department regarding [S4M1], there was when we were writing them, and there still is today. I haven't been there for a year, but it was very difficult to get money from the department to do this for example, which is another reason why we had to go through OpenUCT.*

(L4M1 108-111)

In this instance, L1M1 and L4M1 worked around the departmental disinterest by mobilising the tutor group, comprised of Honours and Masters-level students, to produce the materials they felt would be valuable. By using non-departmental initiatives – “[L4M1] and I got very good at scraping bits of money together, here and there” (L1M1 66) – and the goodwill of their students and themselves (L1M1 69), they were able to produce and share their materials without support from their disciplinary colleagues.

While in Department A there appeared to be room for individuals to proceed with Open projects if they could find the funding, this was not universal. S5 suggested that departmental hierarchies may play a part in possible Open projects:

*Maybe the material is very proprietary to the department or maybe they don't have that level of authorisation, so they do have that positive intent to help... In retrospect I think it would have made more sense to ... instead to target people who could actually implement anything like an associate professor or senior lecturer or someone who wouldn't have to ask 5 or 6 other people before being able to help.*

(S5 28-30; 38-40)

The negative responses for Compatibility – Practice, not regarding Department A, were predominantly focused on instances where lecturers had not previously shared openly. These instances (S1 122; S5 137-138) usually ended in failure for Acquisition attempts, which supports the idea that previous sharing enhances willingness to contribute content for OER Modification.

While UCT as an institution does not exert strong control over material production and curation, the culture of individual departments or faculties may well influence lecturers' ability to share regardless

of their willingness. Both S1 and S5 mentioned that more lecturers were interested in sharing their formal scholarly outputs than sharing teaching materials – “[f]or instance when we did the introduction to the Humanities faculty, they lost interest as soon as we said we were not going to help them with their scholarship” (S1 262-263).

The relationship between the degree of compatibility with existing practice and successful Acquisition concurred with the OER Adaptation project’s expectations, particularly in those instances where lecturers had already contributed OER.

In summary, lecturers were more likely to contribute if they had been involved in previous sharing initiatives, pointing to a relationship between previous sharing (Open or not) and willingness to engage in OER. Individual proclivities towards sharing appeared to be a better indication than departmental, faculty or institutional mandates or cultures, and this will be explored further in Section 6.2.2 – Innovation Decisions.

#### *Relative Advantage*

Relative Advantage is to what degree an innovation is better than the idea that precedes it (Rogers 2003). In the case of OER Adaptation, this is difficult to measure, as staff are not directly incentivised for their OER production, and at UCT teaching is generally less recognised than research (Jawitz & Peres 2011). Furthermore, in the conception of the OER Adaptation project the development of OER is not seen as a replacement of traditional teaching, but a means to improve the reach and accessibility of educational materials.

The concept of Relative Advantage was addressed in the student interviews by asking whether or not students believed that lecturers felt any direct benefit from engaging in OER, and whether or not the lecturers felt the benefits outweighed the costs. In the lecturer interviews, the contributing lecturers were then asked to confirm whether or not they agreed that the improved reach and accessibility of OER was valuable.

**Table 8: Factors influencing OER Acquisition - Relative Advantage**

<b>Relative Advantage</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	23	5
Lecturers	11	6
<i>Total</i>	<i>34</i>	<i>11</i>

Contrary to expectations, Relative Advantage appeared fairly frequently in the student interviews. However, the 'advantage' sought by the lecturers could be more complicated than simply greater access to their materials. S1 noted that lecturers in the S1M1 department deliberately avoided the use of the institutional LMS to share lecture slides due to their belief that “if you give out slides students won't come to lectures” (S1 49). S4 corroborated this statement by asserting that “lecture slides aren't full lectures, but some students think they are, so they'll skip lectures and just use the materials” (S4 68-69). This did not influence their willingness to offer the S1M1 and S4M1 Skills development materials as OER, as “[w]hat they're developing to put openly online isn't content, it's

more additional skills, like writing skills, research skills... so I think they're more keen to put that out there to improve student performance, because it doesn't conflict with their actual departmental content" (S1 96-99).

It became clear that there was more than one way of understanding what constituted Relative Advantage. Students were asked which audiences they believed lecturers were targeting with their materials – students at their own institution, students at other institutions, other learners, or academic colleagues, and generally indicated that the assumed focus was on students in their own and other institutions. S2 believed that "the way lecturers put together their lectures, [they] don't think of it going up and being held to scrutiny by colleagues, professors, I mean they're really just teaching a bunch of undergrad students" (S2 241-242). S3 & S5 similarly suggested that the contributing lecturers understood the benefit of OER in terms of student performance (S2 171; S3 122-136; S5 179-182). S1 (117-118) deliberately framed the conversation in terms of the advantage to students (as well as enhancing reputation) that sharing materials would enable. In the case of the S4M1 materials, there was also a desire to demonstrate to high school teachers and students some of the skills and competencies they would require at university level (S4 11-13).

Analysis of the lecturer interviews revealed a similar focus on students, and usually on their existing students. L1M1, L3M1 and L4M1 all indicated that they primarily saw the OER Adaptation process as another way to connect with the students they were currently teaching (L1M1 80-85; L4M1 37-38) or as a low-cost exercise to increase their reach (L3M1 166-168). However, L4M2 saw different affordances alongside the increased access provided to students, namely the curatorial aspect of the OER Adaptation project (S4 122-127).

Funding from the project could also be used as a means to pay for existing student initiatives. L1M1 and L4M1 both noted that the funding for the S1M1 and S4M1 materials was used in part to compensate the tutor group that had already designed the materials, but also that the requirement of uploading the materials to OpenUCT required them to ensure the comprehensiveness and quality of the materials (L1M1 143-146).

The strong framing of Relative Advantage in terms of supporting student learning, rather than producing OER for professional development purposes, speaks to the lack of the role that incentivisation plays within the institution. Scholars are strongly incentivised to produce scholarly outputs, and increasingly are being encouraged to share them (Association of College and Research Libraries, 2016; UCT, 2014). However, at UCT, while there is official recognition for good teaching practice, such as the Distinguished Teacher award<sup>28</sup>, there are no incentivisation mechanisms for sharing teaching materials. Tellingly, during a presentation to the Humanities Faculty Board, "they lost interest as soon as we said we were not going to help them with their scholarship. I think a lot more lecturers would have been open to that" (S1 262-264). The greater interest in opportunities to engage in OA scholarship over OER was corroborated by S5, who supported this idea of some lecturers' indifference towards OER with the statement "because it's not a scholarly paper that they need to get recognition for" (S5 239-240). L4M1 confirmed that "teaching is secondary... your job is to get published" (L4M1 193-194).

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<sup>28</sup> <http://www.uct.ac.za/about/honours/teachers/>

In summary, Relative Advantage was largely framed by both students and lecturers in terms of providing greater access to students, largely their own students. The possibility of contacting other students and lifelong learners was generally downplayed, though acknowledged as a valuable additional function.

#### *Compatibility – Time*

Lecturer's time constraints had been identified as a barrier to OER adoption in the OER Adaptation project's proposal. OER Modification and creation work takes both a certain set of skills and the time in which to use them (Littlejohn & Hood, 2014), and student adapters were envisaged as lifting that burden from the lecturers, allowing them to more easily contribute OER.

During the interviews, students were asked questions to gauge their participating and non-participating lecturers' time pressures, and whether or not the contributors regarded the additional capacity provided by the student adapters as valuable. *Compatibility – Time* was reported as a major factor by all the student adapters (n=5) with 30 positive counts and only 3 negative counts (Table 8).

**Table 9: Factors influencing OER Acquisition - Compatibility - Time**

<b>Compatibility – Time</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	30	3
Lecturers	5	3
<i>Total</i>	35	6

S2 in particular noted the importance of Compatibility – Time, from both the contributing lecturer's and the student adapter's perspective. Two separate issues arose from the interviews: firstly, the lecturers' time constraints that made the student input a vital component to the success of the project; and secondly the seasonal time pressures dictated by the academic year which shaped what Acquisition and Modification activity was possible.

The lecturers' perception of how much time they would be required to invest in the student-led Modification process appears to have been an important factor in their decision to agree to or reject the initial Acquisition attempt.

*There were some that were doing a (Science faculty) and the (Commerce faculty) course, who were like, either "my schedule is too busy so we'd have to postpone this to next year or next semester" ... To some degree, they felt that they'd want supervision of what actually came out and so their schedules kept them busy on their parts, they thought "I don't want to add this on top of the workload that I already have".*

(S3 67-69; 76-78)

S1, S3 and S5 reported that the added capacity they provided was seen as vital to the success of the project. During unstructured conversations following the semi-structured interviews (subject to the same recording, transcription and de-identification methods), I explored which elements of the project the students felt could be changed or improved, and introduced the idea of an advocacy-

based project as a possible alternative. The students generally dismissed the idea that such a project would be successful, citing the importance of the extra time and capacity provided by the adapters:

*I think the fact that I was there and actually doing the work was a big factor in getting them happy with the idea. The fact that you're in a sense removing them from the process (makes it work). I think it would be a lot harder to get materials otherwise.*

(S1 217-220)

Contrary to expectations, one student (S2) reported that despite his own personal intense investment of time on OER Modification, that lecturers could fairly easily develop the skills to produce their own OER, if they were convinced of the need to do so.

Lecturers' perspectives reflected the student consensus. L1M2 intimated that a proposed alternative project in which students spread awareness without providing the time support would actually serve as a "disincentive" (L1M2 230). L3M1 explained their non-involvement in checking S3's work partly due to the additional time cost it would have entailed. L1M1 in particular was adamant that she could not have done the work without student assistance (L1M1 174-175).

Emerging from lecturer interviews was the awareness that material production generally is not specifically accounted for in employment contracts, and happens in a flexible and unstructured way (L1M2 108) – one lecturer even stated that he develops materials primarily after-hours or over the weekends (L3M1 52). L1M1 and L4M1, who contributed materials that were originally designed for a non-curricular course, were more aware of the time taken to create materials and thus more appreciative of the assistance provided by the student adapters.

Overall, Compatibility - Time was a strongly influential factor in the Acquisition process, confirming the OER Adaptation project's original assumption about the value students could provide as capacitating agents. Both students and lecturers agreed on the importance of the additional capacity provided by students and most (n=4 students, n=4 lecturers) were in agreement that without the students taking responsibility for the work, the project would have failed.

#### *Image*

In order to determine to what extent lecturers were concerned about the potential Image concerns raised by OER Adaptation, students were asked how they introduced and 'sold' the concept of OER as beneficial to a potential adopter, as well as the concerns that the lecturers raised in response. Students reported that the lecturers' concern about their 'Image' appeared relatively frequently as factor influencing successful Acquisition, particularly in the case of S2, who accounted for half (n=12) of the positive responses (Table 9).

**Table 10: Factors influencing OER Acquisition - Image**

Image	Positive responses	Negative responses
Students	24	3
Lecturers	0	4
<i>Total</i>	<i>24</i>	<i>7</i>

The lecturers who were approached, but did not contribute, often expressed that they were concerned about how the material might come under scrutiny and the possible consequences for their reputation, as illustrated by the quotation below:

*The one who totally refused that it will be putting his work on the line by publishing this, he'd really need to be hands-on and really trust me on a personal basis to process his material and put it out there because his name would be on the line out there as open source.*

(S3 82-85)

Once materials had been acquired, Image became much less of a factor for most of the contributing lecturers. More than half of the students (n=3) reported that lecturers were not interested in the kinds of changes they made, possibly as the Modification process was always framed as leaving the pedagogical component untouched. The exception to this was L2M1, who as previously mentioned, became increasingly concerned with her Image and the potential negative effects this could have on her career development:

*[t]he problem is that as the process went on, I think [L2M1] got more and more worried that her identity and name is linked to this material that she's releasing.*

(S2 342-343)

Other lecturers were more positive about the capacity of OER to profile their work and themselves:

*L4M2 was very keen that his contact details were on there, because it was meant to inspire debate and discussion so he wanted to be available for discussion.*

(S4 141-142)

Largely, however, contributing lecturers seemed unconcerned by Image issues. While students often framed their Acquisition activity in terms of how it could support lecturers' reputations (S1 102-106), lecturers did not seem particularly interested, with zero positive counts in the interviews. When Image was mentioned as a factor, it was exclusively as a negative one; either contributing lecturers were unconcerned with the scrutiny that their shared materials might receive (L1M1 142; L4M1 108) or that they themselves would not have thought to mention their sharing during academic review process or promotion hearings (L1M1 206).

Image appeared to be a generally positive factor influencing lecturers' willingness to engage with the project (i.e. during the Acquisition stage), but fairly unimportant once Modification began. It could, however, be a powerful counteractive factor once Modification work had already begun, such as with L2M1. As the students engaged in no (or relatively minor, in the case of S1 and S4) Modification of pedagogical content, the quality of the pre-Modification materials and the possible representational issues within them appeared to be the most crucial aspects determining the role of Image in both Acquisition and Modification.

#### *Compatibility – Technical*

As an internet-mediated innovation, OER is strongly tied to broader technological innovation (particularly curation and metadata) and educational innovation (distance learning and e-learning). Technical compatibility emerged as distinct from Compatibility of Practice, as awareness of OER or even engaging in sharing OER, does not necessarily entail knowledge of the technical aspects of online education, as the division of labour in the UCT academic environment may devolve some of

the more technical aspects of the process to units such as CILT, ICTS or the Library. Compatibility – Technical was also investigated by examining the contributing lecturers’ involvement in other forms of digitally-mediated teaching, including the comprehensiveness of their use of Vula, and their engagement in other online educational spaces such as blogs, websites and forums.

In order to determine whether or not lecturers’ technical competency played a role in deciding whether or not to contribute, students were asked during the interviews to report on their impression of the technical aptitude of the lecturers they approached. Their responses, where possible, were compared with lecturers’ self-reported technical practices (Table 11).

**Table 11: Factors influencing OER Acquisition - Compatibility - Technical**

<b>Compatibility – Technical</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	20	4
Lecturers	6	2
<i>Total</i>	26	6

All students reported that the contributing lecturers were users of the institutional LMS. Usage of the platform differed, with all lecturers using it for administrative purposes, and all except the lecturers from S1 and S4’s department (Department A) used it as a content distribution platform to deliver teaching materials to their students. L1M2 (45) and L3M1 (14) affirmed that they were active users of Vula.

Students reported that contributing lecturers generally were involved in online teaching prior to the project. L3M1 was a co-founder and active contributor to an academic blog (L3M1 21-28), and S1 and S4’s home department had consciously shaped their engagement with Vula to meet a specific teaching need: using Vula to engage students by using the communication and project submission features of the platform, while deliberately avoiding using it to share materials (S1 49, 96; S4 79).

Unfamiliarity with the technical aspects was noted by two students (S2 131; S3 123) as possible disincentives for engagement. There were too few negative responses from the student adapters to allow for deeper investigation of the role that technical unfamiliarity may play in influencing lecturers’ willingness to contribute.

The generally high level of technical awareness amongst the contributors did not appear to translate into involvement in the technical aspects of OER Modification. Lecturers did not get involved in the upload or metadata process (L4M1 171), and at least one had not even seen the materials on OpenUCT (L3M1 97) or express an awareness about how people could access his content on the platform (L3M1 123). This apparent disinterest in the completed OER is further discussed in section 6.1.2.

S5 moved outside of his own faculty to find interested participants, and found that lecturers in the Science Faculty were more responsive than lecturers in his home faculty. He attributed their responsiveness to their greater interest in the technical aspects of OER:



*I think more in the (Science Faculty) they took more easily to the idea maybe because they were in a more technical field to begin with, so the idea of bringing something technological was more appealing to them.*

(S5 75-76)

However, S5 did not actually acquire or adapt any material from the Science Faculty due to time constraints. While an interesting concept, this idea of more technologically-minded disciplines being more ready to involve themselves in OER was not supported by the findings of this study, which was too small in scope to draw disciplinary-level conclusions.

#### *Homophily – Discipline*

**Table 12: Factors influencing OER Acquisition - Homophily - Discipline**

<b>Homophily – Discipline</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	17	4
Lecturers	3	1
<i>Total</i>	<i>20</i>	<i>5</i>

One of the project's assumptions was that students within faculties and departments would be best placed to perform Modification work, due to their familiarity with the academics and the source material. This informed the project strategy to hire a student from each faculty to optimise the breadth of departments approached for Modification work.

However, this did not play out as anticipated. Firstly two of the student adapters (from Library and Information Sciences department and the Engineering and Built Environment faculty) left the project before Modification work commenced, and those units did not have their own student adapter. Secondly, more than half of the student adapters (n=3) by the end of the project acquired material from lecturers outside of their faculty, due to slow responses or lack of success in acquiring materials from their own disciplines. In recalling their experience with Acquisition, they did not feel that disciplinary differences between lecturer and student adapter influenced their Modification work substantially, and rather that individual or departmental attitudes towards innovation played more of a role than disciplinary homophily, as illustrated in the quote below:

*I think more in the science and engineering they took more easily to the idea maybe because they were in a more technical field to begin with, so the idea of bringing something technological was more appealing to them, maybe? But I think that in terms of approachability I found them all equally approachable because most of the people who sent me replies were quite keen.*

(S5 75-80)

S1's comment on their Acquisition experience affirms the assumption that students would find it easiest to approach lecturers in their own discipline, while simultaneously suggesting at the importance of personal relationships:

*Approaching my [Commerce Faculty] lecturers was pretty comfortable as I had a strong relationship with them already. Even though it didn't result in many materials, that was easy. The difficult one was [S1M2 course] because I didn't have any idea who they were or what they did, which is why, if you remember, I asked you to come along and provide some support.*  
(S1 37-40)

It should be noted that in this instance, the Commerce Faculty interaction was unsuccessful, while the one with the unfamiliar Humanities lecturer ended in the Acquisition and production of two completed OER.

S2, by contrast, was of the opinion that pre-existing personal relationships were not particularly important, and that while “[f]amiliarity with the subject matter obviously helps, because some of that stuff you’ve got to practically rewrite, or reinterpret it in such a way” (S2 154-156), students from any department could be employed as long as they were enthusiastic and active in their efforts to acquire materials.

L1M2 was of the opinion that it was “absolutely not! [necessary]” (L1M2 219) for adapters to be of the same discipline as the materials they worked upon. The following comments about the need for interdisciplinary perspectives (L1M2 219; 222) suggests that L1M2 considered the Modification work to include more pedagogical Modification than the copyright clearance and redesign work that actually occurred. L3M1 was non-committal about the importance of disciplinary homophily, mentioning that “if it was a mathematician, or somebody who has studied maths, that’s certainly relevant, but it wouldn’t necessarily mean that I wouldn’t let someone else have the notes if they weren’t doing a maths degree” (L3M1 157-149). L1M1 and L4M1 both took the position that subject knowledge was highly important to successful Modification (L1M1 155-158; L4M1 219-221), but the fact that in their situation the tutor groups were key in the developmental phase as well as the Modification activity may account for their greater emphasis on Homophily – Discipline, as their contributed relatively more content knowledge than the other Modification instances.

#### Homophily – Experience

In the DoI framework, the degree to which a change agent and members of the community experiencing innovation are similar is theorised to be positively correlated to the success of innovation initiatives. While the forms such similarity can take are varied – age, ethnicity, gender, class, and so forth – the OER Adaptation project identified similarity in terms of educational experience as one of the ways in which homophily could be expressed. This factor prompted the project to seek out postgraduate student adapters specifically as better placed than their undergraduate contemporaries to acquire and adapt material.

To test this assumption, students were asked whether or not they believed that their level of educational attainment played a role in successfully acquiring materials, and whether or not they found it easier to approach lecturers from their own departments or faculties. Their responses are represented in Table 13:

**Table 13: Factors influencing OER Acquisition - Homophily - Experience**

Homophily – Experience	Positive responses	Negative responses
Students	16	2
Lecturers	2	1
<i>Total</i>	<i>18</i>	<i>3</i>

The students working on the OER Adaptation project included a student in his late-teens, two students in their early twenties, one in his late twenties, and one student in his forties. The eldest two students had work experience prior to their studies, while the younger three did not. In the initial conceptualisation of the project, it was assumed that the experience of the students in their discipline would positively correlate with the ease of acquiring materials from lecturers, and one of the assumptions guiding this research was the idea that the students' age would strongly influence their success in acquiring materials.

However, two of the students expressed the belief that undergraduate students would actually be better placed to develop a sustained rapport with lecturers, using contact sessions and other similar structural opportunities, and the successes of S3 in obtaining and adapting materials suggests that age alone was not a crucial factor in obtaining materials.

S4 believed that his age was less important than his postgraduate enrolment:

*Yes, I had a certain age advantage... but I don't know. I think that in the (S4M1) department students are taken seriously, especially postgraduates, because they have had to demonstrate a certain intellectual level, a certain ability to engage closely with lecturers, they're not one of 200 in a lecture theatre. So I don't know whether I had any particular advantage.*  
(S4 249-252)

S5, while generally expressing the sentiment that approaching lecturers was not dependant on Homophily-Experience, did note that it was easier to engage with a younger lecturer:

*There was only one person, she was more in my age group, I think she was in her 20's, so I felt very comfortable talking to her. She was lecturing me for a semester or two. I think that was because age-wise we were more matched whereas the others there was at least 15-20 years of age gap.*  
(S5 55-58)

However, this engagement did not result in him acquiring materials, while his successful Acquisition was with an older and more established academic (L5M1).

Lastly, S3, while only a first year student, did not particularly struggle in acquiring materials and worked with more contributing lecturers than any other student (L3M1, L3M2 and L3M3).

When asked about the relationship between their level of experience at the university (qualified as undergraduate vs postgraduate status) and the ease of Acquisition, the student adapters' responses were mixed. Two of the students (a first year and an Honours student respectively during the project) expressed that having been enrolled in a Masters programme would have made their Acquisition attempts easier, while a third believed that a PhD candidate would have had greater success in electronic Acquisition due to emails being taken more seriously (S5 92). However, that same student, supported by another, believed that being undergraduates would have had the possibility of developing personal connections with lecturers by using mandated contact time to introduce the concept of OER to them:

*(I) If I was an undergraduate student, I think it would lecturers would be more accessible in the sense that I could build a rapport with them in lectures and then meet them after hours... like, it's easier in that sense. So I could even like target some lecturers and be of the mind to speak to them over a couple of weeks and then we're familiar and spend time with them in consultations and after about 2-3 weeks of conversation and back and forth I could also just introduce that I'm involved in this (OER Adaptation project). And that also makes sense because after you've spoken to them for a while you can see if they're interested in something like this just based on their temperament and predisposition.*  
(S5 96-101)

There appeared to be a slight relationship between the experience of the student and the ease of Acquisition, but the dominant factor (according to the students) can be better expressed as the ability to develop an interpersonal relationship with the lecturer. This could be facilitated by length of educational experience, but also by individual factors such as strong interpersonal skills. As well as Homophily – Discipline and Homophily – Experience, the personal characteristics (charisma, social skills, enthusiasm) of the student adapter was noted by S4 (253), S5 {104} and L2M1 (224) as an influential factor influencing Acquisition.

In summary, it was found that interpersonal skills and long-term familiarity and relationship-building with the lecturers were important factors in successful Acquisition as well as Homophily-Experience. The respective age difference between contributing lecturer and student adapter was less important, though it did have some bearing on how comfortable students felt approaching lecturers closer to their own age. The contrast of this finding with that of those from the exploration of disciplinary homophily will be discussed in Section 6.2.1 – Change agents.

#### *Resultant Demonstrability*

The OER Adaptation project looked to address the concept of Resultant Demonstrability through providing feedback to lecturers about the performance of their materials in the repository in terms of frequency of access of the completed OER, and any feedback or commentary given by users. Whether or not the students and lecturers attributed any importance to the discussion of this functionality is captured in Table 14 below:

**Table 14: Factors influencing OER Acquisition - Resultant Demonstrability**

<b>Resultant demonstrability</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	4	8
Lecturers	1	6
<i>Total</i>	5	14

While detailing and reporting on the capacities of the OpenContent and later OpenUCT platforms in terms of their ability to provide access and download metrics for resources was one of the key Acquisition strategies used by students, they were not of the opinion that lecturers were interested in these statistics. No student reported that lecturers expressed interest in the usage statistics of their materials post-deposit, and during Acquisition reported that no lecturers appeared to be influenced positively or negatively by the ability to check the metrics of their materials - "they didn't really seem to be very overly enthused about it ... maybe because it's not a scholarly paper that they need to get recognition for" (S5 239-240). This included a lecturer who had previously contributed to the repository and had one of the highest-performing OER in terms of both views and downloads.

This is not to say that all lecturers were necessarily unappreciative of the platform's abilities to provide metrics. S3 noted that "[L3M1] had received quite good viewership ... so I sent him my low statistics and he was quite happy that now people were using the actual material (S3 238-241), but also that "they did not ask for statistics themselves" (S3 244). While it did appear to be received positively by some lecturers, it did not appear to be a motivating factor for contributing materials, but rather as a secondary benefit to other goals they may have had for sharing, which perhaps explains S3's unexpected observation that the lecturer was pleased even with the "low statistics" (S3 239).

Interviews with the lecturers confirmed that Resultant Demonstrability was not an important factor motivating them to share. L1M1 did not know whether the materials were still being used (L1M1 110-117) and L1M2 reported that he had seen no positive reactions from colleagues from sharing either OA scholarship or OER (L1M2 151-166). L4M1 went one step further and ran his own analysis of student performance after the materials were developed and found no correlation between their assignment and exam results and access to the S4M1 materials (L4M1 68-69).

In conclusion lecturers do not seem to consider the possible results of OER sharing as an incentive to engage in its production.

### *Observability*

The ability of others to see the results of adopting an innovation – in this case, OER – have been hypothesised by Rogers (2003) to increase subjects' willingness to adopt and sustain it. In the OER Adaptation project, this was accounted for by determining if lecturers were aware of existing OER initiatives within their units or faculties, and if their engagement in OER related activities was something they themselves discussed with colleagues.

Observability emerged as the least important factor in influencing a lecturer's decision to allow their materials to be adapted, with 3 positive and 9 negative counts (Table 15).

**Table 15: Factors influencing OER Acquisition - Observability**

Observability	Positive responses	Negative responses
Students	4	2
Lecturers	3	9
<i>Total</i>	<i>7</i>	<i>11</i>

Students were asked questions on their impression of the degree of lecturer awareness about OER, to gauge whether OER activity was visible in the academic circles they accessed. The responses from three students did not indicate Observability as a factor at all, either positively or negatively. Students S2 and S5 did indicate it as a minor factor, but S2 made the point that there was confusion between OER and other forms of open educational practices:

*They didn't truly get it, but they knew about free education being offered by universities, they'd all come across that notion, offering courses for free, offering subject matter for free, offering education tools for free online, they were all familiar with that, but beyond that they hadn't read much on the subject matter.*

(S2 163-167)

Similarly lecturers were either unaware of OER activities by their colleagues, or in L1M1's case, emphasised the lack of awareness or respect for open scholarship (L1M1 151-162). Their OER activities were undertaken in isolation from either departmental or international examples or even from feedback.

Overall, it appeared that students believed Observability was not an important factor influencing lecturers' willingness to have their materials adapted as OER.

### Visibility

In the empirical work, despite initially being coded relatively frequently, Visibility always occurred alongside other factors, such as Observability, Compatibility – Practice or Image. It was determined that the concept of Visibility was insufficiently distinguished from these other factors for me to have confidence in its explanatory value, and thus was not deemed useful as a separate analytical category.

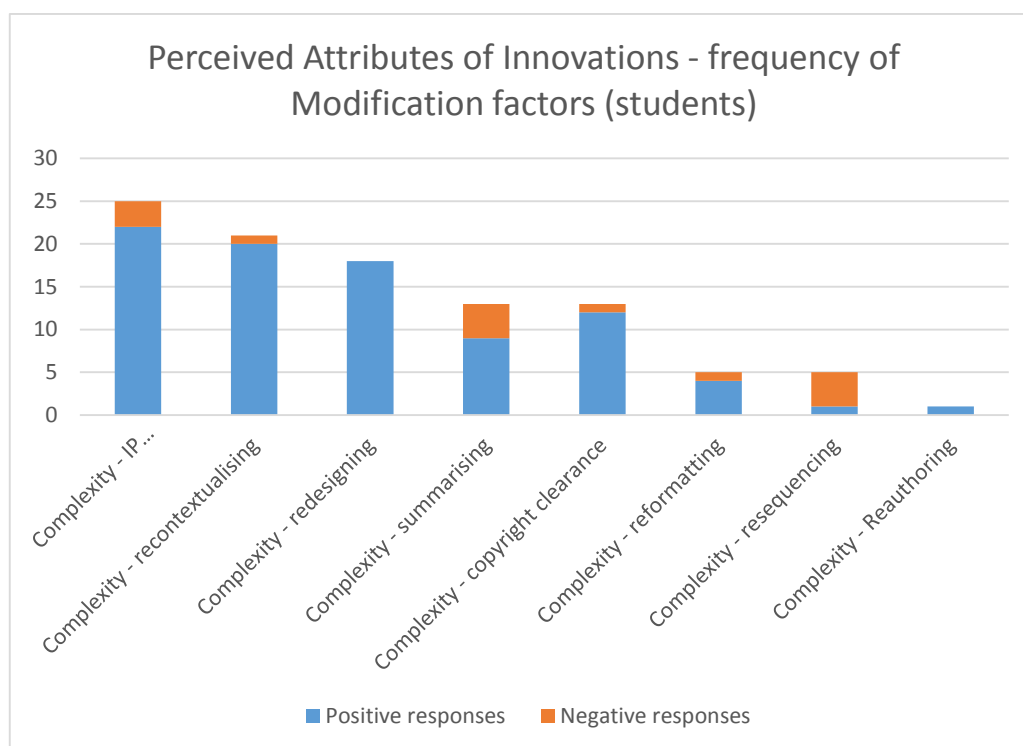
### 5.2.2 Factors influencing OER Modification

In order to address the research question: *"What changes to lecturers' teaching and learning materials were made by the students, and in what ways did these changes influence the quality of the materials?"* [RQ3], students were questioned about the nature of their Modification activity. The questions around their Modification activity were framed by Okada's Reuse Framework (Okada et al 2012), narrowed down to five key concepts based on the scope of the project's activity – Redesigning, Contextualising, Summarising, Reauthoring and Resequencing (see Chapter 3). A sixth

concept (Copyright Clearance) was added to emphasise the importance of IP management in the OER Modification process.

To a degree, these Modification components were interrelated. For example, Copyright Clearance activity often involved Redesign work, especially with regard to recreating images and graphs, and Contextualisation and Summarising activity often coincided, especially where Contextualisation primarily involved the removal of site-specific material. The findings reflect this interrelation, as specific Modification activities were often coded multiple times to reflect the multifaceted nature of the activity.

Below, Figure 8 lays out the Modification-related Perceived Attributes of Innovations as identified by students. As lecturers were not considered to have particular insights about the Modification process (an assumption confirmed by the lecturer interview transcripts), their responses were not subjected to analysis. Student responses to the interview questions were coded either as ‘positive’ (in that the identified factor was influential in the lecturers’ decision to innovate) or ‘negative’ (in that the identified factor was not influential in the decision to innovate).



**Figure 8: Perceived Attributes of Innovations – Modification factors**

Figure 8 illustrates the general tendency for students to focus on ‘cosmetic’ changes in their Modification activity, avoiding pedagogical change. This is explored in more detail below.

#### *Artefact analysis*

In order to verify the student responses, the artefacts produced through the project were compared to the original teaching materials to determine if the student accounts of their Modification activity were reflected in the difference between the original materials and adapted OER. In total, 10 OER were created through the course of the OER Adaptation project. These consisted of a range of

materials from different departments within UCT. Table 16 below lists all the outputs arising from the project that are included in this study:

**Table 16: OER artefacts**

Student adapter	Code	Description
S1	S1M1	Skills development materials for a Humanities discipline, aimed at first-year students
S1	S1M2	Course presentations/notes for a Humanities Faculty discipline
S2	S2M1	Videos for a Humanities faculty discipline
S3	S3M1	A course reader for a science faculty discipline
S3	S3M2	A textbook for a commerce faculty discipline
S3	S3M3	Course presentations/notes for a humanities faculty discipline
S4	S4M1	Skills development materials for a Humanities discipline, aimed at second-year students
S4	S4M2	A semester-long set of course materials for a different humanities faculty discipline
S5	S5M1	Course notes for a commerce faculty discipline
S5	S5M2	Course notes for a science faculty discipline

#### *S1M1 – Humanities Skills Development materials*

S1M1 consisted of materials designed to help students develop their academic literacy skills, covering a range of topics; from formulating essay questions, to critical reading, to exam preparation techniques. Each topic covered in the materials was produced in both MS Word (.docx) and MS PowerPoint (.pptx) formats, which served different functions: the PowerPoint slides provided a quick overview of the main concepts of each section, and were aimed at students. The Word files were primarily designed for the tutors conducting the skills development course and provided more detail and examples. They also contained an 'Aims' section indicating the types of learning that the materials were supposed to support (for example, analytical skills), suggested activities and discussion points along with recommended timeframes for these discussions, and advice on how to scaffold the learning process.

There were no images in the materials. All course markers and disciplinary references were excluded. All the completed files were licensed under a CC BY provision.

The S1M1 materials show evidence of *copyright clearance, redesigning, contextualising* and *reauthoring* Modification work.



As these materials were not solely adapted from existing teaching and learning materials but were in the process of development while the OER Adaptation project was running, it is difficult to ascertain which specific changes were made as a result of the project, other than the inclusion of the licensing statement. However, the materials do show evidence of design for an online learning environment, further discussed in Section 6.1.2 – Creation vs. Modification.

#### *S1M2 – Humanities lecturer presentations*

S1M2 was adapted from a series of lecture presentations in MS PowerPoint format (.pptx). S1 performed copyright clearance activity on the slides, primarily by replacing images with appropriate openly-licensed alternatives, which were referenced by including names and links in the textbox below the slides, or removing images entirely. S1 also adjusted margins and did minor grammatical corrections. Certain markers indicating localising information (lecture theatre and office numbers, telephonic extensions) were still present after Modification. The final slides were licensed under a CC BY provision.

The S1M2 materials showed evidence of *redesigning*, *copyright clearance* and partial *contextualising* Modification work.

#### *S2M1 – Recorded lecture videos*

S2M1 was comprised of a set of recorded lecture videos. Initially, a large number of videos were offered for Modification, covering a wide variety of topics within the contributing lecturer's discipline.

The initial materials were static recordings of the lecturer conducting lectures aimed at first and third-year students. S2 adapted the materials by adding accompanying slides to the videos, after modifying them by removing materials under copyright, redrawing graphs and images where appropriate, and fixing grammatical errors. An introductory graphic accompanied by a brief audio clip were added. Parts of the videos were edited out to obscure student faces, to cover performance errors, or to remove excess footage at the beginning or end of the recording. Final slides were added at the end of the videos to show references. The final videos were licensed under a CC BY provision in the metadata on OpenUCT, but not in the resources themselves.

The S2M1 materials showed evidence of partial *summarising*, *copyright clearance*, *contextualising*, and *redesigning* Modification work.

As mentioned before, the videos were taken off OpenUCT at the request of the contributing lecturer shortly after the content migration from OpenContent to OpenUCT occurred.

#### *S3M1 Science Faculty course reader*

S3M1 consisted of a course reader for a science faculty discipline, nearly 200 pages in length, on a variety of topics and with plentiful illustrations and graphs. As these images were all generated by the author, no copyright clearance activity was required. S3's Modification work consisted primarily of checking grammatical and content errors and adding the licensing statement to the cover sheet of the resource. The final material was licensed under a CC BY-NC provision.

The S3M1 materials showed evidence of *copyright clearance* and *redesigning* Modification work.

### *S3M2 – Commerce Faculty textbook*

S3M2 was adapted from a textbook that had been previously published commercially, the copyright of which the publisher had returned to the author, L3M1. The quality of the materials was assured as the material had previously been published and gone through an editorial process. The material did not contain any third-party materials, as the graphs and images within it had all been created by the author. The final material was licensed under a CC BY-NC-SA provision.

The S3M2 materials showed evidence of *copyright clearance* Modification work.

### *S3M3 – Humanities course notes*

S3M3 was adapted from the same lecturer who provided the S1M2 materials, and similarly consisted of lecture presentations in MS PowerPoint (.pptx) format. S3 adjusted margin widths and corrected minor typographical errors, removed or redrew graphs and diagrams, and provided references for alternative open-licensed images on the slides on which they appeared. S3 also created a reference list at the end of the document providing citations for all the in-text references provided in the presentation. All course markers and other localising information (dates, room and course numbers, etc.) were removed. The final material was licensed under a CC BY provision.

S3M3 shows evidence of *redesigning, copyright clearance* and *contextualising* Modification work.

The similar but different Modification work conducted by S1 and S3 on materials from the same lecturer provides evidence on the individual nature of the adaption process.

### *S4M1 – Humanities Skills Development materials*

S4M1 was a companion piece to S1M1, composed of the second-year equivalent materials within the same department. Similarly to the S1M1 materials, all the topics covered were produced in two formats, with a student-facing PowerPoint presentation accompanied by a Word document designed for the instructors or tutors teaching the material. In addition, the S4M1 materials were accompanied by an introductory document that did not have an equivalent in the S1M1 materials, which scaffolded the learning objectives and briefly described the purpose of the dual format provision. There were no images in the materials. All course markers and disciplinary references were removed during Modification. All the completed files were licensed under a CC BY provision.

The S4M1 materials show evidence of *copyright clearance, redesigning* and *contextualising* Modification work.

### *S4M2 – Humanities course notes*

S4M2 was adapted from course notes for a specific humanities faculty course that was being discontinued. Each file in the set was produced in .docx format (Microsoft Word 2007). The content in the lecture notes files were adjusted to fit a single A4 page, and licence statements were included in the footer of each document. All images were removed. An introductory document covering the organisation of the course, outlining the purpose of the various documents (lecture notes and tutorials) was produced, as well as a course outline that provided the curriculum, outlined the purpose of the tutorials and essay questions, and provided additional readings. The final materials were licensed under a CC BY provision.

The S4M2 materials show evidence of *redesigning, resequencing, summarising, copyright clearance* and *contextualising* Modification work. The inclusion of the introductory document shows evidence

of an intent to describe the rationale for making the materials public as well as the intent for future engagement.

*S5M1 – Commerce Faculty lecture presentations*

S5M1 was adapted from existing MS PowerPoint presentation slides, converted into .pdf format by S5. The contributing lecturer had previously contributed materials to OpenUCT and was reportedly aware of IP considerations [S5 215-216]. The Modification activity was relatively minor, consisting of collecting the content and enhancing it through the addition of a cover sheet, an explicit licensing statement and appropriate metadata. The final presentations were licensed under a CC BY provision.

The S5M1 material showed evidence of *copyright clearance* and *redesigning* Modification activity.

*S5M2 – Science Faculty lecture presentations*

S5M2 was adapted from hand-written lecture notes, which did not therefore contain any copyrighted material. The materials were digitised (via photographing lecture whiteboards) and a cover slide was added with an explicit licensing statement. Certain markers indicating the material's origin in the UCT context (such as course names and numbers) were not removed or redesigned. The final material was licensed under a CC BY provision.

The S5M2 material showed evidence of *copyright clearance*, *partial contextualisation* and *redesigning* Modification work.

All materials were uploaded onto the institutional repository by the student coordinator, who assigned metadata and wrote brief abstracts for the materials, with the exception of S4M2. Table 17 below maps the Modification s evident from the artefact analysis to the quality domains that this study seeks to address, namely 'Quality of openness' and 'Quality of resource' (see Section 2.2.7)

Table 17: Quality changes to OER artefacts

Modification factors	S1M1	S1M2	S2M1	S3M1	S3M2	S3M3	S4M1	S4M2	S5M1	S5M2
Intellectual Property Management	√	√	√	√	√	√	√	√	√	√
Contextualising	√	√	√			√	√	√		√
Redesigning	√	√	√	√		√	√	√	√	√
Copyright clearance	√	√	√	√	√	√	√	√	√	√
Summarising			√					√		
Resequencing								√		
Reauthoring	√									
<b>Quality of Openness</b>										
Explicit licensing	√	√		√	√	√	√	√	√	√
<b>Quality of Resource</b>										
Metadata ascribed	√	√	√	√	√	√	√	√	√	√
Low file size	√						√			
Multiple formats	√						√			
Open formats	√	√	√	√	√	√	√	√	√	
Additional referencing provided						√				

The OER Adaptation project did not prescribe a particular range of materials nor an Modification approach, and thus a range of techniques were used by the students, who brought their own competencies and strategies to the Modification process. This can be seen clearly by the differing strategies used by S1 and S3; S1M2 and S3M3 were adapted from materials produced by a single lecturer.

OpenSource software formats (e.g. .odt, .ods) were not employed by any of the student adapters.

The materials from which S1M1 and S4M1 were adapted were not completed before Modification activity began, and so the Modification process overlapped with their creation. This allowed for a greater degree of freedom in their structure and content. This is further discussed in Section 6.1.2 – Creation vs Modification.

### *Complexity – Intellectual Property management*

**Table 18: Factors influencing OER Modification – Complexity - Intellectual Property Management**

<b>Complexity – IP negotiation</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	22	3
Lecturers	4	6
<i>Total</i>	<i>26</i>	<i>9</i>

The focus of the Intellectual Property Management activity was to inform and educate lecturers about open licensing and its implications, and then applying a Creative Commons licence to the finished OER after Modification work. IP and copyright workshops were held for the student adapters to enhance their knowledge of legal openness and sharing. This training was intended to be comprehensive enough to allow the students to serve as OER ambassadors, informing lecturers about legal openness and Creative Commons with assistance from the coordinators when necessary. These workshops were generally felt by the students to have been successful (S3 267; S5 253) although the timing was not ideal and S1 felt there were issues with the abstract nature of the training (S1 238) (see Section 5.4 – Logistical Factors for more details). The students, thus empowered with the appropriate skills, were also presumed to engage in some degree of knowledge transfer in the course of their Acquisition work, focusing on the choice of licensing.

Student responses to the question *“How did you introduce the concept of open licensing to lecturers? Do you feel you enhanced lecturer knowledge about copyright and open licensing?”* indicated a range of techniques and strategies students used to discuss Creative Commons and the copyright clearance process. As mentioned above, most of the completed OER were licensed under CC BY, the most ‘open’ of the six Creative Commons licences (along with one CC BY-NC and one CC BY-NC-SA). This was not an explicit project goal; however S1’s comment on the congruity of CC BY and the intended purpose of maximising reuse illustrates their adoption of a particular ideological position towards openness and how that influenced their Acquisition activity:

*So... obviously you want them to choose the most open license possible. As much as I would give them a broad overview of which licenses were available, and that this license means this and this one means that, I would sort of emphasise that you know you want to try and make this as open as possible, otherwise it defeats the whole purpose. I understand that academics might want to protect some aspects of their work, but also the CC-BY is the best way to do it if you want full access to be given. So I would give them the full picture but I would also direct them towards CC-BY.*

(S1 185-191)

S4 used his previous experience in the design industry to shape the conversation about IP in “layman’s terms” (S4 198), which helped in communicating the necessary information, whereas S3 and S5 primarily worked with academics who had some experience of Open Education who “already [had] that mindfulness” (S5 215).

Along with Compatibility - Time, IP management played an important role in the failed Acquisition attempts. Some of the lecturers approached did not agree to submit materials because of the open nature of the project, such as in the case of S3 below:

*[T]he one I wasn’t successful with, from interacting with him I got the feeling that he’s quite academically orientated, so you know, articles, research, so the open material stuff seemed to bother him and he wasn’t that aware of how the process worked and so I couldn’t say that he was as aware from the interactions that I got from him, of what we do as UCT and as open content. He was not as welcoming as he kind of did not trust me and the work I’d be doing on what he was using to lecture.*

(S3 120-124)

Deciding on and applying licences to the completed OER was relatively straightforward. The nature of the materials undergoing Modification likely impacted upon this straightforward licensing; with the exception of S1M2, S3M3 and S4M1, the original materials under Modification tended to be image-sparse and thus allowed for more freedom in their final licensing. At project completion all the OER were licensed CC BY, except S3M1 and S3M2 which were licensed under CC BY-NC and CC BY-NC-SA respectively.

The approval process proved both less controversial and less rigorous than anticipated. S1, S3 and S5 all reported that their lecturers were either disinterested in the final licensing choice or actively chose the most open license, such as in S1’s case below:

*I was lucky enough that with the (S1M1) development group they are already advocating for openness so they wanted CC-BY, and (LecturerS1M2) as well was also very keen to use CC-BY. The only lecturer who wanted to use non-commercial was (Lecturer A), but he didn’t end up contributing materials.*

(S1 185-193)

S4 did not struggle with licensing. L4M1 took easily to the idea of CC BY licensing (S4 243, L4M1 175-176). L1M2, L3M2 and L5M1 were all previous contributors to OpenUCT, and the final license on S3M2 was due to its previous publication as a paid-for resource. However, the evidence indicating that lecturers developed their knowledge of IP and copyright in any substantive sense is mixed.

L1M1's and L4M1's responses (L1M1 181-183; L4M1 171-176) indicate that they engaged only shallowly with the concept, while both L1M2 and L3M1 did not see the materials after contribution (L1M2 183; L3M1 97) and did not discuss licensing after the initial meeting with the student.

Arising from the student interviews, the lecturers approached in the project could be divided into three categories: those with existing knowledge (L1M2; L3M2; L5M1); those without specific OER knowledge but possession online learning experience (L1M1; L2M1; L3M1); and those with marginal or no OER knowledge (L4M1; non-contributing lecturers. Generally those with some knowledge (OER or general Open and online education-related) were more likely to contribute.

### *Complexity – Redesigning*

**Table 19: Factors influencing OER Modification - Complexity - Redesigning**

<b>Complexity – Redesigning</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	22	1

In OER Modification activity, 'Redesigning' consisted of modifying the layout (borders, colour palettes, text size, colour and placing, etc.). All five students indicated that their Modification work involved Redesigning elements of the teaching materials such as:

- Adding references or image citations (S1 169; S2 305, 317-318; S3 149-151; S5 187)
- Remaking charts or images (S1 163-165; S2 320-321; S3 167-169; S5 189, 195)
- Modifying borders, colours or other stylistic elements (S1 166-167; S4 283-284)
- Fixing typos and grammatical errors (S1 130; S2 230; S3 159; S5 203-204)

Students rarely mentioned any problems with their redesign work, with the exception of S2's video editing. Most redesign work did not require sophisticated software or high levels of technical ability as most materials were in .docx or .pptx format. The student adapters had easy access to the software needed to make the edits (either through personal devices or the institutional computer laboratories) and the actual changes made required fairly basic technical skills. For S1, S3, S4 and S5, Redesign work was straightforward and unproblematic.

S2 was the only student who struggled with the actual process of redesign. As S2 didn't have access to advanced video editing software, his work was marred by constant software failures which led to inefficiency and wasted time. This was compounded by the poor quality of the source material and led to substantial frustration on his part.

Redesign work was strongly shaped by the format of the original teaching and learning materials but otherwise appeared uncontentious.

### *Reformatting*

S1 and S4, who worked on the same department's materials, engaged in reformatting. All the skills development materials they worked on were released under .pptx (PowerPoint slides) and .docx (Word document) formats, covering the same materials in two different layouts. This was in part to

mimic the delivery format, as the original lectures were offered face-to-face as well as through Vula, but also to provide for two separate user audiences:

*The idea was the PowerPoint presentation was something that was just delivered, but the Word documents have more instructions, either on how to run the lecture or something that one could use in a tutorial. They aren't traditional lecturers, they're more interactive, so in smaller groups they probably work better in tutorials. The word docs were designed to add instruction.*

(S4 232-235)

The low occurrence of reformatting activity may be due to the nature of the materials acquired in the early stages of the project. S1M2 and S3M3 were PowerPoint presentations with their pedagogical content in the form of short sentences, bullet points, brief quotes and images, which may not have been productive to transfer to another medium. S2M1, consisting of video and presentation content, could potentially have been transcribed, but the severe time constraints present in the S2 instance made even completing the video editing process difficult. S5M1 and S5M2, comprised of lecture presentations, covered content in a summarised form, and recreating the content as, for example, a written piece would have required adding extensive content.

#### *Complexity – Contextualising*

**Table 20: Factors influencing OER Modification - Complexity - Contextualising**

<b>Complexity – Contextualising</b>	<b>Positive responses</b>	<b>Negative responses</b>
Students	20	1

Contextualising consists of removing or altering the elements of the text that locate it in a specific cultural, national or institutional context. This can take the form of removing or altering specific examples and idioms, and removing or reworking course markers and other curriculum-based information that would be distracting to an external user.

Four students reported undertaking Contextualising activity. Contextualisation activity in the project consisted of making the materials neutral (insofar as that was possible) rather than reworking them to fit a new context. The following quotations illustrate the range of activities taken by the student adapters:

*Some of the slides were introductory slides for the course, so that someone outside of the course wouldn't benefit from, so I removed markers such as assignment due dates and stuff like that... (a)nd then again, just going through and changing the language to make sure that someone outside of the course could understand it.*

(S1 161-162; 165-166)

*Some of the references to context that wouldn't be useful in the material, I had to remove.*

(S3 165-166)



*It was a very quick and easy job because the main thing I had to do for that was take out the dates, everything was dated, and taking things out like how the essays would be graded, how the assignments would be graded, so it was all the functional administration stuff.*  
(S4 155-157)

S4 reported the highest amount of Contextualising activity (n=13 positive, n=1 negative). The S4M1 materials were developed with decontextualisation as an explicit objective, and so it is unsurprising that they should have received such rigorous attention. The S4M2 materials had a specific content focus that could not be decontextualised without negating the content, but were adapted to remove the non-pedagogical aspects (such as the course markers mentioned in the S1 quote above).

While there was some variation in the amount of time spent on this activity, it was generally expressed as a straightforward and simple process. Thus in this project, contextualisation was functionally ‘decontextualisation’, in which students did not include sourcing new examples, change visual metaphors or perform other work aiming to situate the work in a new context, but rather focused on removing localising examples and other information. The ease of this process is likely partly due to the fact that much of the work was elementary or universal in its subject content: S3 and S5 worked on foundational subjects in the commerce and science faculty materials (with the exception of S3M3) which did not include much contextual information pre-Modification; and S1 and S4 did much of their work on materials that were specifically scoped pre-project to be disciplinary-agnostic. S2 expressed the lowest number of Contextualising activities, which is not surprising given the nature of the content (recorded video lectures), which made it harder to remove all contextualising data.

Decontextualisation appears to be a ‘low-hanging fruit’ in the sense that the skills required are fairly basic and the permissions process is unproblematic. As full Contextualising, in the sense of replacing content to fit a new pedagogical setting was not attempted by any of the student adapters, this study cannot make claims about the ease of Contextualising.

#### *Complexity – Copyright clearance*

**Table 21: Factors influencing OER Modification - Complexity - Copyright Clearance**

Factor of Adoption	Positive responses	Negative responses
Complexity – Copyright clearance	12	1

‘Copyright clearance’ consisted of ensuring that all third-party materials in the adapted OER are appropriately licenced for reuse. This involved either sourcing the original licences, replacing the images with open alternatives, or removing them entirely.

Copyright clearance was a core focus of the OER Adaptation project’s conceptualisation and was assumed to comprise a major component of the Modification work. However, students did not report a particularly high frequency of copyright clearance activity. Students were asked to describe the decisions they made with regard to finding licences for, replacing or removing third-party

copyright in their materials. While all five students mentioned it as a component of their work, none highlighted it as particularly important or difficult.

The primary elements needing to be cleared in the original teaching and learning materials were images, charts and graphs, as well as video in the case of S2's activity. The primary focus of the activity was finding appropriate references for the existing open content, or replacing, recreating or removing third-party material as appropriate when fully copyrighted materials had been used.

Students expressed that replacing images with openly-licensed alternatives and reconstructing graphs taken from proprietary sources was the major aspect of Copyright Clearance activity:

*So that was basically the bulk of the work that I did. Making the slides open by changing the images that were used, alongside with the written material, to make examples, to make illustrations, and then I'd have to replace those images with open materials.*

(S3 167-169)

*(W)ith the lecture slides, any type of graph or pictures and stuff, I had to remake (them).*

(S2 321-322)

Students were also able to bring their own Modification strategies to the process. S1 and S3, working on different materials by the same lecturer (L1M2), chose to reference the included images differently. S1 chose to use the 'Notes' section of Microsoft PowerPoint to provide attribution and links to the original authors (S1 172-173), while S3 did so on the slides themselves. S4, when adapting the S4M1 materials, reported that they chose "kind of took the view that I could replace them with copyright-free images but they didn't really add anything to the materials, so I just removed them" (S4 283-284).

In summary, copyright clearance was an unexpectedly uncontentious space in the OER Adaptation project. The paucity of references to copyright clearance may be explained by the comparatively greater rate of student responses on the Intellectual Property Management (Section 5.3) aspect of the work. Once materials had been acquired, and given the fact that in most cases (with the exception of L2M1) participating lecturers had either heard of or actively engaged in OER, the copyright clearance process proceeded fairly easily.

### *Complexity – Summarising*

**Table 22: Factors influencing OER Modification - Complexity - Summarising**

Factor of Adoption	Positive responses	Negative responses
Complexity – Summarising	9	4

Generally, the student adapters did not feel comfortable with summarising. The following quotation illustrates some of the common concerns around editing content including the level of complexity of the text:

*I wouldn't be really so comfortable in (making major changes). It depends on the subject matter. If the topic was very complicated or which wasn't very, very basic, then I wouldn't feel comfortable doing that. But if it was a very basic statement, then... sometimes the slide is just repeated, by mistake...*

(S5 199-201)

S4 was the only student who found summarising unproblematic. This took two forms: minor reductions of content to fit page boundaries and removal of images that were not referred to in the text:

*And of the images that were used were kind of like... there's a discussion there, and you put in an image about Maslow's Hierarchy of Needs... I'm not sure why you put that in there, so I'm going to remove it. I can understand where there's value to things where they're directly necessary, but these often weren't.*

(S4 287-292)

S4's relative confidence may stem from the fact that he was more involved in the original creation of the OER (in the case of S4M1), and that his summarising work was often done working more closely with the contributing lecturer in the case of S4M2.

Given that summarising often involves editing the pedagogical content of the teaching materials, it is not surprising that students did not often attempt it. The students who did perform summarising work, such as S2 and S4, were both working with materials from their respective departments, and were also the oldest of the student adapters. Even then, S2's summarising work primarily focused on removing sections of video that did not contain teaching content, such as student interaction or feedback on assignments and other administration-related classroom activity.

#### *Complexity – Resequencing*

Resequencing barely featured in the Modification work, with four negative and only one positive count in the data (Table 23).

**Table 23: Factors influencing OER Modification - Complexity - Resequencing**

Factor of Adoption	Positive responses	Negative responses
Complexity – Resequencing	1	4

The single positive count referred to S4M2, the course that was about to be discontinued. As the materials were no longer being taught face-to-face, there appeared to be more room for adapting the structure of a course as it was no longer constrained by the UCT academic year:

*(T)he basic course (S4M2) is scheduled for 13 weeks with one lecture and one tutorial a week, but there are supplementary ones, so the total might be more. So we spent some time talking about what additional materials should be put in and where they should be put in. So in the end some of the additional material was put in and some of it wasn't, because it was just reinforcing existing lectures. So yes, there was a bit of Resequencing.*

(S4 186-193)

The negative responses either expressed an unwillingness to engage in Resequencing, or the belief that it was not necessary:

*I think it would have been quite difficult approaching them in that way, so what I would have done was shown them a before and after sort of context to it. I would have ultimately had to show them that I'd removed it or changed it to a specific way, but I wouldn't have taken the work to them before editing, I would have taken it as a solution.*

(S3 190-194)

Students' unwillingness to resequence content appears to stem from the general trend of student adapters avoiding pedagogical-level Modification, feeling it to be beyond their remit and/or authority, with the exception of the S4M2 materials. As they were being discontinued, S4 perhaps had greater confidence in their ability to engage with this level of Modification.

### Complexity – Reauthoring

**Table 24: Factors influencing OER Modification - Complexity - Reauthoring**

Factor of Adoption	Positive responses	Negative responses
Complexity – Reauthoring	1	0

Reauthoring involves changing the pedagogical content of the resource. As this sort of change was not anticipated, there was only a single instance of Reauthoring reported in the study:

*So, I think if I recall I just edited for mistakes and to see if there was anything I could add content-wise because I had done [the course] myself.*

(S1 132-133)

This instance can be considered an outlier in the data. S3, S4 and S5 also adapted materials from courses that they had taken, but none of them reported engaging in Reauthoring, and this was confirmed by the artefact analysis. The lack of Reauthoring was congruent with the project's scoping and assumptions.

## 5.3 Logistical Issues

As one of the sub research questions in this study is “how students can advance the OER agenda” at an institution without incentivisation for academics to produce OER or specific OER-production mandates, logistical issues should be considered as pertinent to the successful operation of a student-centred programme.

In this project, there primarily revolved around the time constraints inherent in the academic year and the decentralised approach to project management.

### 5.3.1 Time constraints

The project faced key problems with timing. Due to starting shortly before the first-semester exam period, students had minimal time after the training period to approach and engage lecturers before

the mid-year vacation began. S4, who entered the project with a pre-identified body of materials, was able to be more productive during this period.

The starting date forms part of a broader issue around student and lecturer time schedules, and how these exerted pressures on the functioning of the project. Lecturers lack time due to teaching, research, examinations and marking. During intense work periods, especially during the exam period, lecturers were very unlikely to respond to student requests for either new materials or follow-up meetings on already-sourced materials. S4's quote neatly illustrates the issue:

*It's actually quite difficult, because you get the materials, you make the changes, and you request for them to be signed off... if your request coincides with the arrival of 120 3000 word essays all needing to be marked within a week, that's going to have an impact on the process.*

(S4 264-267)

The student vacation periods were also unproductive periods, due to the number of conferences set during the mid-year period (June-July) and many lecturers taking leave during the December-January holiday period. Students also face time constraints, especially around important times in their examination or thesis-writing schedules. These periods had very little student productivity and reduced communication with the student coordinator.

Although the problems with project timing led to a smaller output from the project than was hoped for, no lecturers and only one student (S2) expressed frustration over the time taken to adapt their materials. This suggests that either lecturers were aware of the "long-tail" (Atkins, Brown & Hammond, 2007, p. 12) for OER impact or, perhaps more likely, saw no immediate benefit to their personal development or their student outcomes as a result of Modification.

### 5.3.2 Project structure

The ad-hoc system of payment, where students were paid according to their hours worked on the project, offered both costs and benefits in terms of its flexibility. The student adapters appreciated the ability to organise their work on the project around major academic events (such as exams and thesis milestones), but the lack of a required minimum number of hours meant that progress was patchy. In the interviews, while two students indicated that while the flexibility of the ad-hoc approach was appreciated (S3 276; S4 320), four indicated a more structured approach and more regular meetings would have helped students to keep consistently working on the project (S1 241; S2 570; S3 272; S5 268). Three students (S2, S3 & S5) indicated that progress tracking or setting deadlines would also have helped keep their focus on project activity and would likely have resulted in greater productivity. No student reached the original goal of approximately five hours per week working on the project, with the least productive student only working 12 hours in total.

## 5.4 Summary

This chapter has sought to describe the findings from the study and to offer perspectives from both students and lecturers, as supported/contrasted by the results of the artefact analysis. In Chapter 6 – Discussion, these findings are situated and discussed within the DoI framework and against the research questions outlined in Chapter 1 – Introduction.

## 6. Discussion

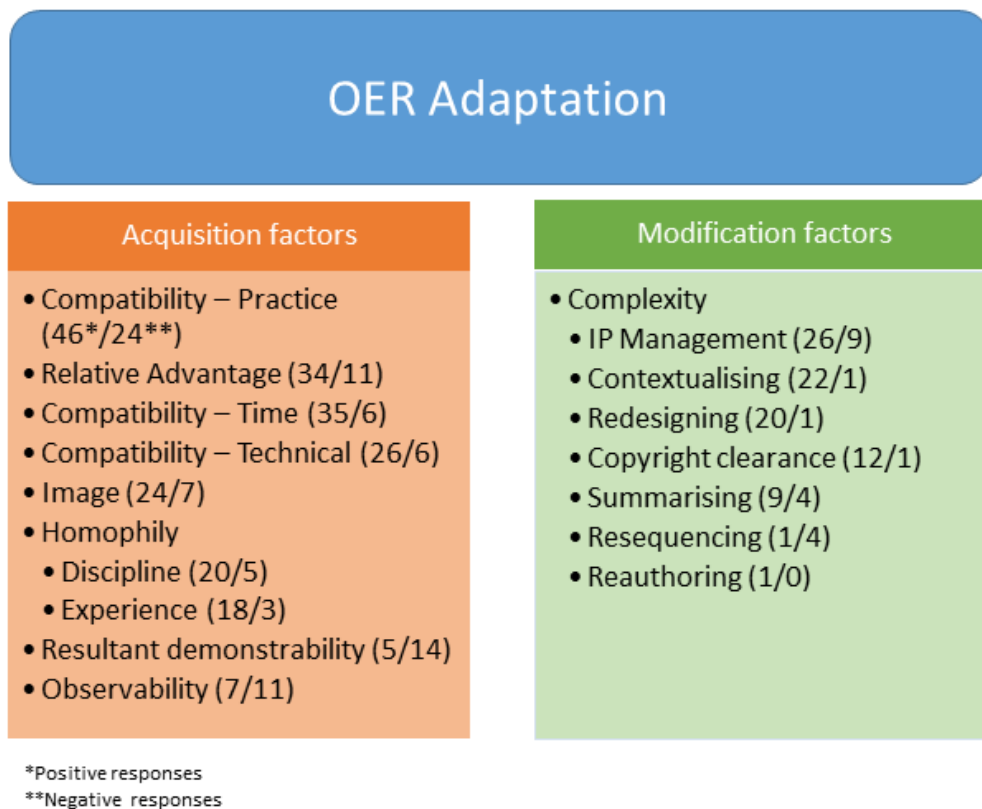
This study sought to address the question: “How well did the OER Adaptation project succeed in its stated goals of furthering the OER agenda at UCT through supporting lecturers in sharing their teaching and learning materials?” It was hoped that the findings of this study would be illustrative of the agential factors that shape how lecturers understand OER adoption in reference to their existing teaching practice, and in so doing shed light on how students can best be employed to support lecturers in transforming their existing teaching and learning material into open resources.

Arising from the findings was the understanding that the key factors influencing lecturers’ willingness to engage in OER Adaptation could be separated into factors that act at the level of the individual, and factors emerging from the social context. These factors can be analytically separated but remain deeply intertwined in how they influence on lecturers’ materials development and sharing practices.

### 6.1 OER Adoption – individual factors

The focus of this study was mapping those factors, operating at the agential or individual level, which influence lecturers in their decision to engage or not engage in OER Adaptation, and the forms that the successful Modification instances take.

The relative importance of the Perceived Attributes of Innovation emerged in answering this study’s first two research questions (*what do student adapters identify as the key factors in lecturers’ willingness to engage in OER adaptation?* and *what do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation?*). These factors influencing the outcomes of the OER Acquisition and Modification activity are listed below in Figure 9, in order of the number of positive responses:



**Figure 9: Perceived Attributes of Innovations in order of frequency**

### 6.1.1 Acquisition

The dominant factors influencing the choice to contribute revolved around Compatibility and Relative Advantage. Lecturers contributed if they were already engaged in sharing, saw the benefits students could supply in reducing the time burden of OER Modification, and did so in order to better support their existing and future students. The comparatively lesser influence of Observability, Resultant Demonstrability and Image suggest either that lecturers are unaware or disinterested in the potential of OER to profile themselves or contribute to their professional development. It also raises the issue of the lecturers' disengagement from the minutiae of the Modification process.

The relative importance of these factors would seem to suggest that the most receptive audiences to target for future OER initiatives are those who are already contributing, or who engage in similar sharing practices that may not technically qualify as OER (e.g. sharing via YouTube but without an open licence). Engagement in sharing teaching materials in particular appears more influential than other forms of sharing, such as OA publication, as evidenced by the decrease in interest at the Humanities Faculty board meeting when it was made clear that student adapters would only assist in OER Adaptation, and not OA support (S1 262-263). It is possible that those lecturers who engage in OA scholarship may understand the technical aspects around copyright and open licensing, but may not see the benefit in sharing teaching materials as OER.

The partial adoption of online sharing by Department A is a notable outlier to the above and ran counter to a key project assumption: that there was a simple positive relationship between online sharing (Compatibility – Practice) and willingness to engage in OER. Instead, the research found that the pre-project engagement with online sharing resulted in a more strategic approach to OER

sharing that affected which content was created and shared. This suggests that sharing initiatives could potentially serve as disincentives if they negatively impact on the metrics (lecture attendance) used in traditional face-to-face teaching.

Lecturers in this study appeared to focus on the capacity of OER to connect with their existing students and only secondarily acknowledged its capacity to connect with external students. Cox (2016) and Masterman (2015) suggest that this may be explained by the “classroom focus” (Cox, 2016, p. 102) of many teachers, who design their materials specifically for a face-to-face teaching context. Given the lack of an OER-specific pedagogy (Knox, 2013; Sclater, 2010), and the fact that individual teaching artefacts rarely stand independently of a broader curriculum (Cox, 2016), the ability for lecturers to think of OER as atomistic, context-independent artefacts may be limited.

A crucial influencing factor in this research context is the incentivisation environment. UCT is a research-intensive institution with comparatively more developed metrics for monitoring and evaluation the quality of research, and as such these measures are more comprehensively covered in performance appraisal processes. Alevizou (2012) discovered a relationship between the lack of incentivisation (and a local community of practice) and low levels of OER engagement; and Ngimwa and Wilson (2012), Wilde (2011) and Martins and Baptista Nunes (2012) have written about the role of formal recognition as an OER enabler. It is not entirely surprising therefore that given the lack of incentives within the institution’s formal structures, the lecturers in this study did not consider the possible impact to their professional development when contributing OER.

While further studies into the role of technical familiarity and competence could be done, it would seem that the technical aspect is of lesser importance compared to the factors that relate to the more ideological and reputational aspects of OER, such as Compatibility – Practice, Image and Relative Advantage. While Compatibility – Technical has the potential to enhance the final product created, it did not appear to act as a strong incentivising or disincentivising agent in Acquisition, nor influence the Modification process. Furthermore use of the institutional LMS may not support lecturers’ experimentation with OER, given how many institutions’ preferred practice is to restrict access to materials on these platforms to current students (Davis et al, 2010). While Vula offers an open licensing option, the contributing lecturers’ focus on communicating with their existing students is adequately served by the existing, closed-access infrastructure.

### 6.1.2 Modification

Research question three (*what changes to lecturers’ teaching and learning materials were made by the students, and in what ways did these changes influence the quality of the materials?*) was investigated through the student interviews, triangulated with the results of the artefact analysis.

In the Modification process, as expected, students focused primarily on Contextualisation, Redesign and Copyright Clearance – all activities that avoided addressing the pedagogical quality of the materials while enhancing their Openness and Resource qualities. This process was carried out by the students based on their own initiative, with little-to-no oversight from the contributing lecturers.

The nearly double (22 vs 12) indications of the role of Intellectual Property Management, rather than Copyright Clearance, suggests that the actual process of checking for third-party copyright and licensing or replacing it accordingly, is substantially less important than the initial stages of learning about IP and copyright, and relaying the appropriate information to the contributing lecturers. The



importance of understanding copyright in OER initiatives has often been covered in the literature (Lee et al, 2008; Beggan, 2010; Reed, 2012). However, the relatively high number of responses from the lecturer interviews indicating a partial or incomplete understanding of open licensing suggests that lecturers did not necessarily engage deeply with these concepts nor felt the need to do so. This may be explained by that responsibility resting on the student adapters. The conflation of 'Open' concepts noted by Cox (2016), in whose study even lecturers who were already contributing OER were confused about the distinctions between OA, OER and OpenSource software, may suggest that a lack of proficiency in IP is not necessarily a barrier to engagement in Open Education if assistance can be found elsewhere.

Analysis of the comparative frequency of both the Acquisition and Modification factors reveals a general trend in the project – the post-Acquisition disengagement of lecturers from the process. This disengagement likely shaped the ways in which students adapted the materials, and furthermore has implications for the kinds of impact such a project can reasonably claim to make about lecturers' understanding of the intricacies of OER Modification.

#### *Lecturer Disengagement*

There was a noticeable trend towards lecturer disengagement from the Modification process. After supplying materials, lecturers were almost entirely uninvolved in the fine detail of the work. S3's quote below is representative of this trend:

*Ja, it was mostly “you do it, come back if you encounter any problems with the actual material, if you do not understand something” type of basis they wanted me to come back and consult with them, but for the whole process [L3M1] was basically hands off, like come back to me if you have a problem with the content.*  
(S3 92-96)

L3M1 however expressed that they “would have liked to go over it, but it was [S3's] project and I was happy to let him do that, um, I didn't want to take on another responsibility for checking what was going on there” (L3M1 102-103).

None of the interviewed lecturers engaged in the Modification process itself, and of the total contributing cohort, only L2M1 was involved in checking the progress of the materials before upload. In some cases this was mentioned explicitly by the lecturer – “I never actually saw the work” (L3M1 97); in other cases it was inferred by their comments on their conception of nature of the Modification work, or by student responses (S5 222-223).

This blasé attitude towards the final product appears to contradict much of the available OER, literature, which tends to stress concerns over quality and representationality as key barriers to OER sharing (Alevizou, 2012; Kursun, Cagiltay & Can, 2014; Winn, 2010). However, this can be reconciled as in this study these factors seemed to exert during the Acquisition phase of OER Adaptation, and that contributing lecturers did not focus on the external audience for their materials.

The lack of concern shown in the final OER product is likely indicative of the confluence of a range of factors at UCT, including a lack of incentivisation around teaching, a low awareness (and/or regard) of the capabilities of OER to profile an individual academic, and greater focus on addressing the existing student base as opposed to interacting with a global audience. Once materials had been

acquired, lecturers appeared confident in the students' ability to Modify the materials without supervision. The only lecturer who withdrew after Modification work had begun (L2M1), while the exception in this study, may be indicative of those lecturers who do place high importance on the potential for their materials to profile themselves to a wider audience.

### *Co-creation vs Modification*

The majority of the materials adapted in this project were completed materials already being used in teaching. The S1M1 and S4M1 series of materials, however, were still under development at the start of the OER Adaptation project, and therefore their Modification process was somewhat different and provided an interesting comparison between the affordances offered by incorporating openness during creation as opposed to the post-hoc process of OER Modification.

The S1M1 and S4M1 materials were developed by a tutorial group under the supervision of two contract lecturers, L1M1 and L4M1. Their pedagogical development process, rather than driven by a single academic, was collaborative in nature, with explicit recognition given to the expertise of the tutors themselves (L1M1 176-179). In this environment, there appeared to be a greater degree of confidence on the part of the adapters to perform more pedagogical-level Modification. Though neither S1 nor S4 were in the original design team, their experience as tutors on similar courses allowed them to undertake more comprehensive Redesigning and Summarising activity (S4) and led to the single instance of content-level Reauthoring (S1 132-133). In S1's case, this confident, extensive Modification work for the S1M1 materials can be compared to the work on the S1M2 set, which underwent more conservative Modification work.

This greater degree of student involvement is represented elsewhere in the literature, usually with a focus on students as co-creators of curricula (Bovill, Bulley & Morss, 2011; Cook-Sather, 2014) or incorporating students as co-producers of research agendas (Neary & Winn, n.d.). Cook-Sather's (2014) study of the Students as Learners and Teachers (SaLT) program in particular offers an interesting analysis of how the involvement of students as classroom curriculum evaluators can potentially transform lecturers' pedagogical practice.

Comparatively little, however, has been written about students' role in the precise process of developing educational materials. Pitt (2016) reported on student development of OER as part of their course work at Dundee University, but these materials were developed as discrete outputs unconnected with a particular lecturer or curriculum. What has been written about student involvement in pedagogical development suggests that the more involved students are in curriculum design, the deeper their engagement (Bovill, Bulley & Morss, 2011; Cook-Sather, 2014). It could be therefore extrapolated that in the OER Adaptation project, the students' unwillingness to make content or pedagogical changes to the materials during Modification may have been different if they had been engaged earlier in the development process, as co-creators instead of adapters. This area may warrant further study to determine at which point students feel able to contribute content-level changes in a materials-development project.

### *6.1.3 Summary*

The disengagement of contributing lecturers from the process and the fact that only one lecturer withdrew after Modification had begun indicates that in a voluntary OER project, those factors that influence the Acquisition of materials are more important than Modification factors in ensuring the success of the project, as they necessarily precede Modification activity. In a co-creational OER

project, Modification activity is likely to be more complex and involve more pedagogical-level changes, and therefore warrant more attention, but will still rely on a successful Acquisition phase.

## 6.2 Social factors influencing OER Adoption

This study has focused primarily on the agential factors that influence individual lecturers and their decisions to participate in a trial OER Adaptation project. However, lecturers operate within an institutional culture that inevitably influences how they engage with OER, and interact with other agents (student adapters) who are both inside and outside of their normal practice. Research question four (*To what extent did the OER Adaptation project optimise students' adaptation of lecturers' teaching materials?*) explores the social or environmental context which scaffolds how lecturers learn about and engage with innovations, in this case OER.

### 6.2.1 Change agents

The primary exploration of the cultural factors influencing OER adoption in this project was the investigation of the relationship between potential adopters (lecturers) and change agents (student adapters). The results from the investigation of change agent Homophily suggest that having experienced change agents (Masters level or above) is somewhat influential in a successful OER Adaptation initiative. The disciplinary background of such students appears to be less important, due to the lack of pedagogical content changes, making the original discipline of the adapter less important than their ability to apply the IP and metadata skills they learned during training. At least as influential as either experience or discipline were the interpersonal skills of the student adapter.

The focus on Openness and Resource quality (see Section 2.2.7) in this particular project aligns with the downplayed importance of disciplinary and experiential Homophily reported by the lecturers, and supports the additional finding that interpersonal skills are an influential factor. As the nature of the changes by and large did not require pedagogical knowledge, neither the discipline nor the seniority of the student adapter is as crucial as their ability to inspire lecturers to contribute.

The extent to which students acted as true change agents is questionable. The successful Acquisition instances all occurred with lecturers who already engaging in some form of online education, and all of the successful Modification instances (i.e. excluding L2M1, who withdrew her materials post-publication) involved lecturers who were already sharing materials publically.

Rogers (2003) outlines a seven-step that change agents that go through when introducing an innovation:

1. Develop a need for change
2. Establish an information exchange relationship
3. Diagnose problems
4. Create an intent to change
5. Translate this intent into action
6. Stabilise the adoption and prevent discontinuance
7. Terminate the relationship.

In the OER Adaptation project, students followed this pattern with some deviations as this model does not perfectly fit the context of the OER Adaptation project. Specifically, Step 3 – Diagnosing problems – is problematic given that there is no direct problem to solve. OER adoption is not meant to replace traditional teaching. Rather than attempting to fix a 'problem', then, the Acquisition

discussions were primarily framed around enhancing the contributing lecturers' capacity to reach their own students.

The inability of students to fulfil Step 6 – Stabilisation and Continuity was a key finding of the project. While some lecturers were enthusiastic about the potential use of students as OER agents, none reported or were observed to continue the innovation of using students as OER adapters. Furthermore inferences from the lecturer interviews, drawn from their comments about departmental cultures, suggests that the participating lecturers themselves did not engage in, in McGuire's words, "[p]romotion of the innovation to others" (1989, p. 45).

Most of the successful student Acquisition attempts were conducted with lecturers who were previously aware of some form of Open Education, and their attempts to discuss open licensing were shallow. S2's interaction with L2M1, while initially successful, ultimately ended in failure. The small sample size and limited time-frame make it difficult to make strong claims, but given as students mostly interacted with lecturers with some degree and understanding of openness, students did not appear to act as ambassadors of an open innovation. As such it appears that the role of students can be better described as capacitating agents rather than change agents, in that they primarily enhanced the ability of already-innovating lecturers to continue doing so, rather than convincing reluctant (or unaware) lecturers to begin innovating with OER.

#### 6.2.2 Innovation decisions & Opinion leadership

Analysing innovation decisions is the process of determining if authorities, collectives or individuals are empowered to choose to adopt or reject an innovation.

"Optional innovation-decisions" (Rogers, 2003, p. 403) were the dominant form of innovation decisions in this study. Both the students and lecturers indicated that the participating lecturers' decisions to get involved were made as individuals, neither hindered nor supported by the institution or their faculties or departments.

The collegial nature of UCT and the low profile of the central management effectively limits the possibility of an authority innovation decision, while allowing for the possibility of collective innovation decisions. Inferences from the lecturer responses to the question "Does the institution, faculty or department encourage you to share your teaching materials?" suggest that while certain forms of sharing (e.g. through Vula) might be a cultural norm in some departments, generally sharing is not considered a collective practice but an individual one.

However, certain departments and units within the university, taking advantage of their relative autonomy and following international disciplinary trends, have made selections of their teaching materials available in some form for many years. The Physics Department in particular maintained a departmental website that contained all of the Physics coursework between 2000 and 2013<sup>29</sup>. Unfortunately as no students or lecturers from Physics were interviewed for this study, a cross-comparison of the differences between an optional and a collective innovation-decision cannot be made.

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<sup>29</sup> <http://www.phy.uct.ac.za/phy/courses/PHY2004W/>

As mentioned in Section 3.5.3, this study did not seek to determine the role of opinion leadership but some inferences can be made from the lecturer interviews. Responses from L1M1, L1M2, L3M1 and L4M1 indicate that the choice to innovate was made largely in isolation from the lecturers' immediate collegial environment (and even in spite of it, in the case of L1M1 and L4M1). This would suggest that mass media networks were more important than specific individuals in encouraging OER adoption, as no lecturers identified specific individuals within their academic context as influential in dissemination OER knowledge. Indeed, their comments tended to express dissatisfaction with the lack of collegial awareness or support for their initiatives (L1M1 73-75; L1M2 131-135; L4M1 145-148).

The contributing lecturers also did not appear to play a role as Opinion Leaders themselves. One advantage of conducting the lecturer interviews after the project end date was the ability to infer, from their responses, if they had acted as disseminators of OER knowledge in their respective departments, and the evidence did not support this. Only L1M1 and L4M1 claimed that their materials were still being used inside and outside their department, and even then only partially (L1M1 110-117).

While Opinion Leadership was not a focus of this research and no departmental colleagues were contacted for their perspectives, a surprising finding of this research was the relative lack of mention by the contributing lecturers of local OER 'champions', a term which appears frequently in the literature (Hennessy, Harrison & Wamakote, 2010; D'Antoni 2009; Rolfe & Fowler, 2012; Hudson, Hughes & Rose-Adams, 2012). Many OER projects often explicitly set out to identify existing OER champions or create new ones, and their presence has been emphasised as crucial for sustainability (McGill, 2013; Tucker & Bateman, 2009). As Opinion Leadership was not the focus of this study no strong conclusions can be made, but its complete absence is interesting to note and may warrant further investigation.

### 6.2.3 Communication channels

Determining who precisely constituted the agent of adoption in the OER Adaptation project proved more complicated than expected. Given that academics produced and provided the original materials to undergo adoption, it was assumed that they were the 'site' of innovation, while the process was mediated by the student adapters due to their superior technical knowledge of OER. However, the process was envisioned as more collaborative than what manifested during project activity. Interviews with the academics and students revealed that the students performed Modification work largely in isolation, with little feedback requested from or provided by the lecturers on whose material the students were working.

Modification activity occurred within a small group of adapters and participating lecturers contained within a single social community. Initially two students attempted to contact lecturers via email, but with generally very low success rates in terms of both responses and actual Acquisition of materials (S1 57-50; S5 13-19), which were improved when they began having face-to-face contact sessions. The other three students, S2, S3 and S4, began by approaching lecturers directly, and while they experienced some rejections (S3 69-70), generally had a much higher number of positive Acquisition encounters. This suggests that face-to-face interpersonal channels are more successful than mass media in this particular form of student-driven materials Acquisition.

The much higher success rate of the face-to-face encounters indicates that interpersonal communication channels and therefore interpersonal skills are highly important in the Acquisition stage. However, there appeared to be at best a partial or incomplete knowledge of OER, indicating an insufficiently effective mass media communication strategy. This is supported by the finding that the awareness of OER in particular (as opposed to OA scholarship or other forms of public, but not 'Open' education) appears to have been low amongst the contributing lecturers. Only L5M1 was reported (by S5) to have prior knowledge, while other lecturers were reported (and confirmed during their interviews) that they were more aware of OA scholarship than OER.

In conclusion, while face-to-face localite communication channels were successful in acquiring materials, it is less certain that they were effective in communicating a sophisticated understanding of OER to the contributing lecturers.

#### 6.2.4 Consequences and Rates of Adoption

As mentioned in Section 2.3, the OER Adaptation project was of limited duration and the funding for student adapters ended with the project, and the long-term effects of the project's focus – determining the value of the use of student adapters – is difficult to determine. What can be gathered from the lecturer interviews is the general sense that the project did not lead to substantial consequences, positive or negative, for the contributors. Perhaps more importantly, the lecturers themselves did not conceive of the project as having the potential to have personal consequences to them, which clearly influenced their engagement with it.

Analysis of the OpenUCT repository for subsequent OER uploads, while insufficient to determine whether or not student Modification specifically was employed by the contributors, can at least determine if contributors continued to engage in OER production. Only L1M2 uploaded a single item subsequent to the project end-date, although several others had authored or co-authored subsequent OA publications. The Rate of Adoption of using students as OER adapters, then, appears to be zero. The lack of identifiable impact indicators concurs with the low importance of Resultant Demonstrability reported by both students and lecturers.

#### 6.3 Did OER Modification increase quality?

Overall, interpreting whether or not the OER Adaptation project improved the quality of the materials appears to hinge on in which domains quality is assumed to operate. Mawoyo and Butcher (2012) indicate range of ways in which to measure quality, from pedagogical concerns to hosting platforms to metadata comprehensiveness. Given the specific scoping in the OER Adaptation project on copyright clearance, contextualisation and curation, the project did indeed increase the quality of the materials as the final outputs were openly-licensed, were de-contextualised, and uploaded to an open platform (OpenUCT) with sufficient metadata.

However, the participating lecturers' responses indicated a range of other possible ways in which the sharing and Modification process could potentially increase the quality of their materials. L1M1 saw the project requirement of sharing on OpenUCT as a useful impetus for ensuring the comprehensiveness and quality of the materials (L1M1 143-146); L2M1 believed that students could adapt the content to be "more innovative, more contemporary, more cool" (L2M1 208); and L3M1 employed student criticality by rewarding those students who found minor errors in his uploaded material (L3M1 66). These responses focus on the pedagogical aspects of OER quality, rather than

the IP or technical aspects outlined in Section 2.2.7, and do not directly address the Complexity factors examined in this study. This is likely due to the general post-Acquisition disengagement mentioned in Section 6.1. These findings do however suggest that innovative lecturers can take advantage of students to improve their teaching materials' pedagogical quality as well as in terms of their openness.

This lecturer focus on pedagogical quality is mirrored by some other OER authors (Alaniska et al, 2006; Masterman & Chan, 2015) and has implications for how OER projects construct their definition of quality and communicate this to potential contributors. Masterman and Chan (2015) in particular note the importance of "Implement[ing] a QA mechanism to ensure the pedagogic quality of resources made available (production quality may also be considered, but is a secondary criterion)" (Masterman & Chan, 2015, p. iv). The novelty of OER and the ways in which quality can express itself (in terms of its Openness and Resource quality, as well as pedagogically) may require extensive explanation if potential contributors are to grasp these concepts fully.

#### 6.4 Summary: The OER Adaptation project's effect on Social Change

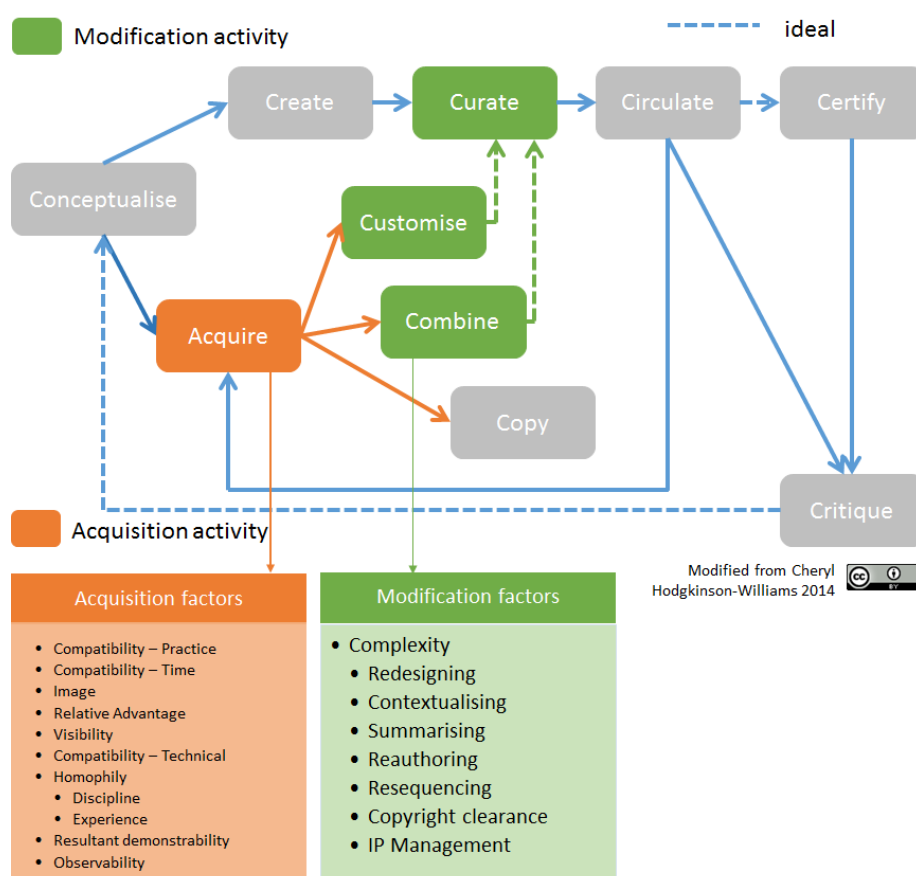
This study sought to address the question: "How well did the OER Adaptation project succeed in its stated goals of furthering the OER agenda at UCT through supporting lecturers in sharing their teaching and learning materials?", specifically informed by Rogers' conceptualisation of social change through innovation. In summary, this particular project was characterised by partial engagement by already-contributing lecturers characterised by disengagement from the Modification process, low perceived value of OER as a means of reputational enhancement and absence of post-project engagement in OER. These factors suggests that the project did not bring about Social Change and that the innovation under study (use of students as OER adapters) did not diffuse. The design and enactment of this project, while successful in supporting a once-off engagement with OER by generally previously-experienced OER contributors, did not in itself further the OER agenda by increasing the number of interested lecturers or encouraging increased long-term engagement by the existing contributors.

The OER Adaptation project was an example of *directed contact change*. The project was conceived by scholars outside of the target community's standard disciplinary circles (though within the same institution) according to goals developed without consultation from the academics who were to be involved in the project. This was partly inevitable as the concept of Open Education and OER specifically is relatively recent and originated externally to the academic community undergoing change. There may be a tension between this top-down approach and the individually-driven, selective contact change nature of OER activity at UCT. The fact that the lecturers were not part of the project design process and had no input into its operation or goals, nor were directly incentivised for participation may have contributed to their partial engagement with the concepts behind OER Modification.

In a similar vein, the non-involvement of the majority of the student adapters in the pedagogical design of the materials has implications for the types of Modification activity students can be expected to perform, based on their skills and confidence levels but also, crucially, on their point of entry into the OER design process. As pedagogical quality remains the most visible and sought-after component of QA, further investigation into the role of students as pedagogical quality enhancers may be valuable.



A key insight emerging from this study is the importance of focusing on the initial Acquisition process that necessarily precedes Modification. While this study used DoI as its theoretical framing and therefore understood Acquisition in terms of Rogers' (2003) Perceived Attributes of Innovations (Figure 10), other studies could frame their exploration of Acquisition using other conceptual frameworks. The expansion and explication of the nuances of the "LoCate" (Hodgkinson-Williams, 2014, p. 11) phase allow project organisers to build in an explicit location or acquisition strategy in the initial stages of their OER projects, one that is cognisant of the local policy, IP and academic cultural environment. The value of this approach is in highlighting the individual and social factors that scaffold OER adaptation activity, which in turn could allow for a deeper engagement with contributors and a Modification process that is compatible with their values, skills and workflows.



**Figure 10: Expanded 10 C's diagram - Acquisition factors**

This research sought to fill a gap in the current literature on student involvement in OER initiatives, namely the possible forms of their engagement as adapters of existing teaching and learning materials into OER. While linked to other forms of student involvement, such as in QA or OER content generation, the particular role of student adapters raises particular issues of whether students can act as change agents in OER initiatives, and if so what institutional structures, cultures and individual competencies must be in place in order to support this ambition.



## 7. Summary, Recommendations and Conclusion

As an innovation, OER can potentially address some of the issues facing the developing higher education terrain. The incorporation of students as adapters can provide additional capacity for lecturers interested in contributing OER, but the ways in which students can provide support (as change agents, capacitating agents) is shaped by both the individual and cultural factors that exert upon potential contributors.

### 7.1 Summary

This study sought to understand whether or not the OER Adaptation project succeeded in advancing the OER agenda at UCT. In the subsequent exploration of the project, the use of Rogers (2003) DoI framework uncovered the following findings relevant to this study site:

- 1) Lecturers who are already contributing OER or engage in other forms of online education are most likely to contribute materials for an OER Adaptation project.
- 2) Lecturers are most interested in using OER to further communicate with their existing students. The potential of OER to communicate with extended audiences beyond their immediate teaching context is of secondary importance.
- 3) Lecturers did not see OER as a means of personal or academic career advancement, and are not incentivised for its production.
- 4) Lecturers did not involve themselves in the minutiae of the Modification process after the initial Acquisition process.
- 5) Students do not feel able to perform pedagogical (Educational) changes on the OER they adapt, and confine themselves to the Open and Resource aspects of quality improvement.
- 6) Students, while valuable as capacitating agents for OER projects, are not ideally placed to act as OER change agents in advancing the OER agenda.

These findings are limited by the small scope and scale of the project, and the focus on Acquisition and Modification, rather than creation of content. Many of these findings are also likely due to the particular confluence of factors at UCT. As such, this section outlines the limitations of this study and suggests areas for future research that could deepen the exploration of certain concepts, or abstract them to other institutional or project contexts.

### 7.2 Limitations of the study

This study was small-scale (with five students and four lecturers interviewed, as well as the ten OER produced) and situated within a specific institutional context – namely one in which there were institutional policies allowing for OER Adaptation, but which did not mandate it, support it with resource allocation, or directly incentivise it.

The varied disciplinary backgrounds of the participating lecturers and the participating students makes it impossible to make departmental-level claims on the basis of this research.

This study made no attempt to determine the role, if any, played by the students' and lecturers' gender, socio-economic class or ethnic background. Future, more ethnographic studies may find it productive to determine the role that other socio-cultural factors (collegial environment, managerial cultures, materials production workflows and institutional legal frameworks) play in OER Acquisition in particular.

The data collection was another weakness in this study. The bulk of the data collection with the students occurred 9-12 months after the project had ended, and the interviews with the contributing academics occurred between 15-24 months after the project end-date. As such the fine detail of the process may have been forgotten, especially by the lecturers. While the triangulation approach to data collection partially compensates for this weakness, by not leaning too heavily on a single perspective, certain aspects of the investigation of the Perceived Attributes of Innovations likely suffered as a result of the length of time between project activity and the interviews.

The semi-structured nature and short duration (+/- 30 minutes) of the lecturer interviews, along with human error, meant that not all of the lecturers answered the same questions, and some answered more fully than others. Specifically, Compatibility – Technical was underexplored in L1M1 and L4M1, and Image with L1M2 and L3M1. While some data can be inferred by their other responses, these omissions were undeniable shortcomings in the data collection process.

### 7.3 Recommendations arising from this research

Any recommendations arising from a short-term, small-scale project must be considered tentative. However, the data from this study does provide some suggestions on how academics and institutions in a resource-constrained environment can most productively engage with students around OER adaptation.

#### 7.3.1 Recommendations to academics

The disciplinary skills and seniority of student adapters is important in proportion to the level of Modification work they are expected to perform. Activities such as copyright clearance, redesigning and licensing are not directly tied to disciplinary knowledge or academic experience, and so recruiting senior students within the same discipline or faculty is not a requirement to engage in this level of OER Adaptation. The enthusiasm and willingness to engage may be more important factors in ensuring a successful Adaptation project.

If students are to be employed in the pedagogical development of OER as well as the Modification aspects, it may be better to incorporate their input in the creation stage rather than in the Modification stage. Finalised materials are pedagogically complete and may be intimidating for students who feel unable or unwilling to change, remove or resequence original content.

In either instance, postgraduate students may be best placed to perform either OER Modification or co-creation activity. While subject knowledge and seniority are not necessarily required for Modification work, they certainly do not detract from a student's ability to do so, and the more flexible working conditions of many postgraduate programmes are likely to facilitate Modification activity. Furthermore senior students are more likely to have experience as teaching assistants or tutors, enabling them to have used the materials both as a student and as an instructor, which is likely to give them insight as to how they might best be adapted for maximum value.

#### 7.3.2 Recommendations to administrators

The finding that student adapters struggled to act as OER change agents suggests that mass media communication channels should be more effectively used to convey the core concepts of OER, so that interpersonal sessions can instead be used to develop deeper comprehension for lecturers possibly interested in engaging in Open Education. There may also be value in targeting departments or faculties as the site of innovation – although the UCT academic cohort is individually empowered

to produce OER, a departmental focus may offer the collegial support to help sustain OER development in the medium-to-long term, and allow for lecturers to take greater ownership and involvement in the process while also being able to rely on the assistance of a renewable group of postgraduate students.

Students can serve as capacitating agents in the OER production process, but are less well situated to serve as OER change agents. As the students in this study had the most success with lecturers who were already aware of Open Education and often OER, it is likely that other networks, such as peer-to-peer networks or departmental initiatives may be more effective as means to spread awareness of OER than student adapters alone.

Lecturers do not necessarily have the IP knowledge to understand the differentiation between OER and online or shared teaching materials, or the knowledge of online learning design or technical skills necessary to optimise their face-to-face materials for an online audience. Employing learning designers, IP experts and student technical assistants could be valuable in supporting lecturers who are beginning to engage in forms of online and Open Education.

## 7.4 Recommendations for future research

### 7.4.1 Unpacking the role of impact

In this study, Resultant Demonstrability was used as the theoretical construct to describe what other studies (Hilton III et al., 2013; Masterman & Wild, 2011; Silver, 2009) have labelled 'Impact' – the tangible results arising from OER adoption. The way in which this study interrogated Resultant Demonstrability was through the usage statistics of the completed OER after they have been uploaded to OpenUCT, and through questioning lecturers if they had received any positive feedback as a result of the increased visibility of their materials.

This measure focuses solely on the benefits to lecturers without studying the other forms of supposed or real impact that may arise from OER Adaptation. Further research could more closely examine the different forms in which Resultant Demonstrability might take, and the differentiation between the perceived impact OER sharing may have and the real effects (or lack thereof) that arose from it.

### 7.4.2 Exploring the materials development process

Part of the assumption of the benefits of student Adaptation of OER rests on the idea that students can save lecturers time in their materials development process. However for this to be considered as valuable, a sense of how lecturers create their materials and how much time this takes is needed.

In the departments of the contributing lecturers, the production of materials is not centralised or subject to internal review. Lecturers produce their materials in relative autonomy; while some of the lecturers in this study may communicate with their colleagues about the production process, the production process often occurs in non-working hours (L1M2 154, L3M1 52) or without direct support from the department (L1M1 54-58; L4M1 145-148) and in an unstructured, unvetted fashion. In this fluid creative process, ascertaining how much time it takes to actually create materials may be difficult, and thus the time savings students provide would consequently be harder to measure. The collegial institutional culture of UCT clearly influences this particular production process, and in other institutions with more centralised management systems the development process (and therefore the effects of student involvement) could be more easily measurable.

While this study was deliberately scoped to avoid pedagogical-level changes, other OER Adaptation projects may find it valuable to investigate in what ways students can enhance the educational component of OER as co-creators. While this field is underdeveloped, the concept of Learner Generated Content (Perez-Mateo, Maina & Romero, 2011) may offer interesting insights in how to involve students as “co-producers” (OEPScotland, 2016) in the production process.

#### 7.4.3 Deeper exploration of agential factors

The DoI framework addresses both individual and social factors influencing the success of a new innovation, but has a tendency to focus on concrete practices. A theory that permits a deeper investigation into the motivating values or beliefs that underpin practice, such as that offered by Archer’s *Social Realism* (Archer, 1995) may add richness to the study of innovations and allow for a more thorough investigation into the agential factors that influence lecturers in their decision to engage or avoid engaging in OER.

#### 7.5 Conclusion

While students played the role of capacitating agents when assisting lecturers to adapt their teaching and learning materials into OER, they did not succeed in acting as change agents advancing the OER agenda at UCT. The competencies and skills they bring to the Adaptation process should therefore be understood in relation to their ability to inspire lecturers to share, and that their optimal point of engagement may be subsequent to other channels and strategies that focus on developing potential contributors’ knowledge of and enthusiasm towards OER.

Secondly, existing OER frameworks have a tendency to focus on the ways in which OER can be remixed, revised or otherwise adapted to serve end-user needs. However, this focus elides a crucial prior step: the Acquisition of teaching and learning materials from lecturers who may or may not be proficient in the various competences (such as IP) or have the time to contribute OER.

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## Appendix A – OER Modification Example



Figure 11: Pre-modification teaching material example cover page<sup>30</sup>



Figure 12: Post-modification OER

In this example the pre-modification teaching material has undergone *redesigning* (changing the title), *contextualising* (removing course markers and course-specific information) and *copyright clearance* (replacing the original image for a Public Domain alternative; adding an explicit licensing statement).

<sup>30</sup> Image provided by Stevie Mann under a CC BY 2.0 license, available here:



## 1 Appendix B – Interview Transcripts

### 2 Transcript – S1

3 I: So the purpose of this particular interview is to try and work out what kind of value students can  
4 add to OER adaptation process

5 S1: Mm-hm.

6 I: Especially in institutions that don't have institutional support, or a unit which actually goes and  
7 does this kind of work, or a mandate to do it, like the Massachusetts Institute of Technology does.  
8 Going through some broad questions about the project, then your relationship with the lecturers,  
9 and finally the actual process of working with the materials; what kind of changes you made, how  
10 you made them, how you negotiated these changes with the lecturers, and so forth.

11 I: Let's start talking about the solicitation process, the 'hunter-gather' process that you had to go and  
12 do.

13 S1: Yeah.

14 I: I was going over the previous interview we did-

15 S1: A long time ago.

16 I: A very long time ago! As I understand it, you first heard about the project from a tutor group that  
17 was developing the [L1M1 materials]?

18 S1: Exactly.

19 I: So you had an 'in' into that area of work. But otherwise, how do you select lecturers to approach?  
20 In an institution with 1000+ lecturers, how do you go about finding the ones that you will eventually  
21 approach?

22 S1: I mean, once I actually understood the process, what open content was, based on what this  
23 project is trying to achieve, who do I think will be willing to give up some of their materials, who  
24 would be more 'free' and open, and thus willing to give some of their materials. That was based on  
25 the lecturers I had during my degree. Having done a [Humanities degree], I started with those  
26 departments. As you said with the [S1M1 materials], that was sort of an 'in', even though that wasn't  
27 lecturers directly. From there I spoke to some [Commerce Faculty] lecturers, as well as some [others  
28 in the Humanities Faculty]. That came about after I asked some friends in other departments which  
29 of their lecturers generally give out their materials.

30 I: I was going to ask, did you do some [Humanities S1M2 material] courses beforehand?

31 S1: Never! <laughing>

32 I: Because that came a bit out of left field.

33 S1: Never ever.

34 I: That's very interesting. That the students could help point out which lecturers might be interested.  
35 When you actually had to go and search out these people, whom did you feel most comfortable  
36 approaching, and who was least comfortable? You sent out a few emails, had a sense of who's out  
37 there... who would you go for?

38 S1: Approaching my [Commerce Faculty] lecturers was pretty comfortable as I had a strong  
39 relationship with them already. Even though it didn't result in many materials, that was easy. The  
40 difficult one was [S1M2 course] because I didn't have any idea who they were or what they did,  
41 which is why, if you remember, I asked you to come along and provide some support.

42 S1: Otherwise, for instance with the [Department A] lecturers, I know they don't share their lecture  
43 slides, they don't give materials out, so as much as it would have been easy relationship-wise, I knew  
44 already that I wasn't going to go to them.

45 I: Based on their previous lack of sharing?

46 S1: Yes.

47 I: You said they don't give out slides. Does that mean they don't share on Vula?

48 S1: They don't.

49 S1: A lot of them use the same slides every year, but I think that a lot of their motivation for not  
50 giving out slides is their belief that if you give out slides students won't come to lectures. So based  
51 on that I thought that they wouldn't be willing to give out their materials because they wanted to  
52 use them again, and also that they wanted to keep lecture attendance up. But I know this year, the  
53 [S1M1] courses did give out slides, and it did bring down lecture attendance.

54 I: That's very interesting, so they were actually justified in that particular belief.

55 S1: Yeah, yeah.

56 I: In terms of successful visits, that means ones that ended up with either saying they would, or  
57 actually ended up giving materials, do you have some idea of the success rate? In percentage terms?

58 S1: In terms of people I approached and saw face-to-face, I'd say out of the three I approached all  
59 three agreed but only two provided materials. In terms of approaching and emailing, I don't know  
60 how many I sent out to no response. The ones I met face to face were mostly willing, but not for the  
61 emails.

62 I: Were there a higher percentage to lecturers you hadn't seen face-to-face before?

63 S1: Yes.

64 I: In terms of your levels, so you are a Masters student, do you feel this helped, that people took you  
65 more seriously? Do you think they would have taken you even more seriously if you had had a PhD?

66 S1: When I started I was in my Honours, so no, I don't think that helped me very much. I started first  
67 semester in honours, so I hadn't established solid relationships by that point. I think if I had been  
68 Masters it would have been easier, because as you said you would have more time to develop those

69 relationships as you see them more often, not on an equal level, but more equal. So I think it would  
70 have helped. During undergrad I had almost no relationship with lecturers.

71 I: The next question was around Vula usage. I know [L1M2] has a very strong Vula profile, but you  
72 said [Department A] didn't use it for putting up lecturer materials, though they did use it for other  
73 purposes. Do you have any sense about the [Commerce Faculty] department and how they use it?

74 S1: They are, they put quite a lot of material on there. I don't know much about the [Commerce  
75 Faculty] department because as much as I was able to speak with them and got some materials from  
76 them, their materials were chaotic. Everything on there was not freely licensed, everything was  
77 copyright, they used very extensive works from the World Bank and so the licensing there was all  
78 chaotic. They do use Vula quite a lot, not in terms of public access, but just for their students. And  
79 they did use a lot of slides.

80 I: Of your successful attempts, or even of just your positive attempts at solicitation that didn't end  
81 up bearing any sort of fruit, do you know if they were sharing on any other sort of platform?

82 S1: Not that I know of. [Lecturer A] had previously shared on Open Content but wasn't aware of it, so  
83 I think they put stuff online, but not systemically, as part of their own published works, as opposed  
84 to their educational materials.

85 I: The next question is around their prior knowledge of Openness, as in open licensing, using open  
86 images, that sort of thing. Would you characterise it as high, low, or mid-range knowledge? The  
87 lecturers, I mean.

88 S1: Low. [L1M1] was well in the know, but the other lecturers, not so much. Only [Lecturer S1M2]  
89 from [Humanities] was aware.

90 I: Did he have previous sharing open platforms, had he been sharing openly beforehand. that you're  
91 aware of?

92 S1: No I don't think so. I think what happened there was that in the first year of [S1M1], [L1M1] and  
93 her group started building these materials specifically to share openly, and that started a trend in  
94 their department. Now, for every course, you get a set of Skills development lectures.

95 I: Interesting contradiction there between not wanting stuff on Vula but at the same time developing  
96 things with Openness in mind.

97 S1: There's a difference. What they're developing to put openly online isn't content, its more  
98 additional skills, like writing skills, research skills... so I think they're more keen to put that out there  
99 to improve student performance, because it doesn't conflict with their actual departmental content.  
100 I see their perspective.

101 I: Let's talk about the advocacy part. What are the hooks you use to persuade lecturers that this is a  
102 good idea?

103 S1: I always try to think of the lecturer's perspectives, why he or she would want to do it. So I would  
104 sell them based on putting their stuff out there, getting recognition, and then maybe later bringing  
105 up the public service or good-of-society angle. I found that most lecturers were more excited about



106 the idea of their work being spread out and read by people, and creating access for people outside  
107 the university.

108 S1: That would be the way I would start, and then also mention, when dealing with the licensing and  
109 the various options, who can actually benefit from this and how the different licenses influence who  
110 can benefit from them.

111 I: That idea of reaching out beyond the university, where there specific audiences that you  
112 mentioned and then got positive feedback from, such as you mention that the work will reach more  
113 students, or other academics in your field, or members of the public... was there any particular  
114 group that you focused on?

115 S1: I was advocating for students, because that's what I'm familiar with. And just going online and  
116 you see that you can buy it for huge amounts... that isn't really an option. If I'm in UCT, and I don't  
117 have this access, what's going to happen? And it's even worse for students at other universities  
118 without our access, it's even more of a problem. So I came from an angle from the students, about  
119 the difficulties and struggles they faced. I felt like I'd advocate for students.

120 I: And this got a response, this worked as a strategy.

121 S1: Yes, I think it did. I think it helped that we're in a university, and that coming from a student's  
122 perspective will be respected.

123 I: Let's go to the actual materials themselves. You worked on the [S1M1] materials for first year, and  
124 then there's the [S1M2] content. I'm not missing anything out?

125 S1: No.

126 I: Looking at the [S1M1] materials, one of the first impressions I got, of the two main impressions,  
127 was that there were no images. I think in the entire body of work there was only a single image, in a  
128 whole stream of comprehensive materials. Was that what you received from the lecturers quite a  
129 sparse design, or did you go through the materials and say 'we can't use these images, they're under  
130 copyright'?

131 S1: No, they came with no images. So what ended up happening there was they wanted me to do  
132 editing work, in terms of grammar or other small mistakes, so they could be published. They came  
133 with no images. So, I think if I recall I just edited for mistakes and to see if there was anything I could  
134 add content-wise because I had done [the course] myself, as part of the skills group, and maybe  
135 change the slides format, and I didn't do anything spectacular.

136 I: But you did add some content because you had gone through the course, to supplement what was  
137 already there. You also made them available in two formats, as Word documents as well as  
138 PowerPoint slides. Would those provided once again by the skills development group, or did you  
139 make those two formats?

140 S1: No, those were supplied by the group. I just came in at the end to edit.

141 I: Did you know why they were supplied in two formats?

142 S1: Yes, the ideas was to actually give these lectures, so the slides are what the students will actually  
143 see, and the word document is a lesson plan for the lecturers delivering the content. So it matches  
144 the slides, providing extra examples, or explaining further here, or giving theme exercises.

145 I: Lastly, what struck me, is that I could take these materials and run them with essentially no  
146 [disciplinary] knowledge whatsoever. They were quite agnostic in their approach. Was that also a  
147 deliberate design choice right from the beginning? I mean, they use [disciplinary] examples, but  
148 they're not geared only towards [Humanities] students.

149 S1: Exactly.

150 I: Did you have any role in that context-independence? Changing language, or so forth?

151 S1: No. I think the content group, when they get the directive, it is to set it up such that they read  
152 agnostically, and anyone should be able to give a lesson on how to write an essay or begin a thesis.  
153 The idea is to give these students general skills that they can use for any course, general writing  
154 skills.

155 I: One of these materials is standing out because it had a single image, this graph here... was it taken  
156 from a textbook, or was it created from scratch?

157 S1: It was created from scratch. Yes. I didn't ask, but from the content, it was obvious they made  
158 this.

159 I: Secondly, is the [S1M2] course, [redacted]. So these were slides not really image-heavy, most of  
160 them are quite sparse, except for some. Can you walk me through the changes you made from the  
161 originals to the final product? What kind of changes did you make?

162 S1: Some of the slides were introductory slides for the course, so that someone outside of the  
163 course wouldn't benefit from, so I removed markers such as assignment due dates and stuff like  
164 that. For most part it was the images. I thought he used quite a lot of images. So, I would go try and  
165 look for the image, see if it was open licensed, and if not then change it, or if I couldn't find the  
166 license then just change it to be safe. And then again, just going through and changing the language  
167 to make sure that someone outside of the course could understand it. Oh, I also changed some of  
168 the slide colours, because they were quite dark <laughs>.

169 I: So I went through those, and the majority of the images came from Wikipedia and Flickr.

170 S1: That was another thing I did, adding citations to show where they came from.

171 I: I noticed you added the sources into the notes, rather than on the image itself or on a reference  
172 slide. Was that a deliberate choice?

173 S1: It was, yes. Just for visual sake... I don't know if you want to see links in a slide presentations, so I  
174 put them in the notes.

175 I: It was interesting, because I never thought of that. I always advocate putting the links straight into  
176 the slides, but you're right, it can look a bit ugly. I'd never thought of using the Notes space at all.

177 S1: I thought the reference slide at the end... I struggled with that. It's like footnotes vs endnotes. If I  
 178 saw a reference, I'd have to go back to the slides, work out which image it was referring to... so I  
 179 rather used the notes section, and it's up to the user to say this is from so-and-so when they give the  
 180 presentation.

181 I: Especially with those two resources, throughout, it was all CC-BY, which is a very open license.  
 182 Which is fantastic from our point of view. But it can be difficult for academics because they love that  
 183 non-commercial clause, they really do... in fact, many of them would prefer full copyright. How did  
 184 you communicate the choice of licensing? Obviously you'd have to introduce the concept of open  
 185 licensing to them... how would you go about doing that?

186 S1: So... obviously you want them to choose the most open license possible. As much as I would give  
 187 them a broad overview of which licenses were available, and that this license means this and this  
 188 one means that, I would sort of emphasise that you know you want to try and make this as open as  
 189 possible, otherwise it defeats the whole purpose. I understand that academics might want to protect  
 190 some aspects of their work, but also the CC-BY is the best way to do it if you want full access to be  
 191 given. So I would give them the full picture but I would also direct them towards CC-BY. But I was  
 192 lucky enough that with the [S1M1] development group they are already advocating for openness so  
 193 they wanted CC-BY, and [L1M2] as well was also very keen to use CC-BY. The only lecturer who  
 194 wanted to use non-commercial was [Lecturer A], but he didn't end up contributing materials.

195 I: By the way his original upload (on OpenContent) was originally uploaded by someone else, by  
 196 Centre for Open Learning, which is under a blanket license, which is probably also why he didn't  
 197 know about it. He signed a contract which said that they're going to put it up there. But the actual  
 198 conversations about the licensing, you sounded like you had quite an easy and uncontroversial time.  
 199 I: Do you think the concept of open licensing actually sunk in? For instance, with the [S1M1] group,  
 200 they already knew... do you feel with [L1M2] that he really understood the concept of open  
 201 licensing, or if he just said 'spread it'?

202 S1: I think he's quite clued-in, but I didn't really get the opportunity to get into what it really means,  
 203 because he was like "I already know about this, just get out there and spread it." So I didn't really get  
 204 into the intricacies of non-commercial, or share-alike, and that. He was just like 'whichever one is the  
 205 most open, let's do that.'

206 I: He's actually been sharing a whole bunch of stuff on the new repository. Next question: were  
 207 there any fears or concerns given by the lecturers?

208 S1: No, I think when I started, I was worried about how they would receive the project, but if I had to  
 209 do it now, not a problem.

210 I: If you could imagine a completely different project that was entirely advocacy related, We have  
 211 the same sort of training sessions we had in this project, we train a group of students purely as  
 212 advocates. They go out, approach lecturers, tell them about Open Education and offer support in  
 213 terms of advice around copyright clearance and open licensing, but not offer any time. This project  
 214 wouldn't offer the 'apple' of taking the materials and performing the adaptational work, although it  
 215 would support the lecturers if they wanted to hire other students to do it. Do you think you would  
 216 have gotten any materials if the project had been like that?

217 S1: No. Well, who knows, maybe over time, if you were advocating for some time, really pushing it,  
218 getting people used to it, maybe... but otherwise, no. I think the fact that I was there and actually  
219 doing the work was a big factor in getting them happy with the idea. The fact that you're in a sense  
220 removing them from the process [makes it work]. I think it would be a lot harder to get materials  
221 otherwise.

222 I: If we had taken an unethical approach, taken the 'O' out of OER and just said 'put your stuff up  
223 somewhere', so you didn't do copyright clearance or check for open licenses and just instead took it  
224 and put it up, or asked them to put it up, would that have worked?

225 S1: As is?

226 I: As is, literally no changes.

227 S1: Yes, maybe, but again it would probably still be the few who are already doing it, or who are  
228 really willing to put their stuff out there. I'm not sure it would work for the wider UCT community.

229 I: So you think it was really the fact that you were there doing the work for them that...

230 S1: Yes, that was a big factor. Although, there were some people like [Lecturer A] who did ask to be  
231 shown how to do it, where to put it up. So I think there are exceptions, it would just take some time.

232 I: As for the actual project itself, were there any aspects of the project that you felt were particularly  
233 well designed?

234 S1: I think in hindsight you see some things that were maybe better than you thought... if I start with  
235 the not-so-good things, I think the timeline of a year or round about that, I think a lot of time was lost  
236 on the training process and then the mid-year vacation. So there were a lot of time issues there. I  
237 think a better process would have been as soon as a student has been hired they go straight into  
238 training, and then get right into going to the lecturers. I learned the most from actually physically  
239 doing it. During the training I struggled to understand it because it was such an abstract thing. But  
240 once I got into it and got going it was actually such an easy process, but as soon as I started getting  
241 into it, it was over. I'm not sure if I'm saying to make it longer, but maybe to use our time more  
242 efficiently. I'm not sure if we needed a more formalised structure in terms of reporting back, or  
243 checking updated materials monthly, but having some process of hand-in times, which would make  
244 the project run smoother. I think that would have garnered a lot more materials quickly. I  
245 understand the problems with us being students, and having a lot of work, but more structure would  
246 have been good.

247 I: I think the timing problem was especially problematic, given the training happened just before the  
248 vac, and then trying to imagine yourself doing this just as a new term is starting. It was unfortunate.  
249 Original project was supposed to start in January, as it happened.

250 I: If you had to change the project, completely different, perhaps like a production model, with a  
251 team that goes out and sources content, another team that just works on the content... do you think  
252 that would have worked? Or do you think the personal relationships you had with as faculty  
253 students was really important?

254 S1: I think the personal relationship was quite important. I think going forward you could act as a  
255 team, just because it was so new to a lot of lecturers, I think the relationships were important.  
256 Another thing, just as a general comment, the fact that it's now an actual repository is good, and a  
257 lot of lecturers are looking for platforms to share their journal articles and other research. That  
258 restriction [of asking only for OER] made things more difficult, I would have gotten a lot more if I  
259 could have asked for their other materials are not just their slides or educational materials.

260 I: Do you think you would have gotten more lecturers, or more materials from the already-  
261 contributing lecturers?

262 S1: I think more lecturers would have been interested, because for instance when we did the  
263 introduction to the Humanities Faculty, they lost interest as soon as we said we were not going to  
264 help them with their scholarship. I think a lot more lecturers would have been open to that. For  
265 instance, in the [S1M1] department, I could have gotten a lot more lecturers, partly because they are  
266 wary of sharing their slides.

267 I: Would you hazard a guess as to why that might be the case, why they might be more interested in  
268 sharing scholarship and not educational materials?

269 S1: I'm not sure, but I think that's just what academics do. They publish their work, they want to get  
270 it out there and read, publish, publish, publish, that's their rat-race to see who has published and  
271 who hasn't. I had a lot of lecturers who shamelessly only teach their materials, so they're looking for  
272 an outlet to use the material they actually work on. Whereas for slides, they kind of make a slide for  
273 a particular day and then move on. It's not really... they don't see the value in sharing.

274 I: Do you believe you provided some value to the open education agenda at UCT?

275 S1: Some. I feel like I could have done a lot more, but the little bit that I did I do feel added some  
276 value. In the sense that I got to introduce it to some people who hadn't heard of it, and knowing that  
277 there are now some materials out there that wouldn't have been had I not been involved. But like I  
278 said, I think more time or better use of our time would have added more.

279 I: Final question, and this applies more to the [S1M2] course than the [S1M1] material: has there  
280 been any interest expressed in a follow-up, in the sense of asking how the materials are doing, or  
281 how they're doing in the repository.

282 S1: No.

283 I: Thanks!

## 1 Transcript – S2

2 I: So the purpose of this interview is to get some insight on the process of the Vice-Chancellor's  
3 Project, see how it worked, how it didn't work, how it could work better, and just to understand  
4 some ways in which students can, or possibly can't even help lecturers take materials and turn them  
5 into open source. Feel free to argue on any points, or ask questions or clarifications, and if there's  
6 anything you don't want on the record, just shout and I'll stop recording.

7 S2: Great.

8 I: Also, I'm recording all these, and once I transcribe it, or once my brother transcribes it, I will send it  
9 to you in case there's some stuff you don't want on record.

10 S2: Fair enough, I'm sure it'll be fine.

11 I: No one's said anything too drastic so far. Let's start off with the different sections we're going for,  
12 the selection process, contacting, approaching, finding lecturers to talk to, then the actual work on  
13 materials, what you did, what was difficult, what was easy, how to communicate with lecturers  
14 about the materials you made, and then finally a section about the project itself, what was bad,  
15 what could be changed for the future, if there's ever another version of this. So talking about the  
16 processing of the content...

17 S2: It was a year ago, but I'll try my best, I do have a good memory of the whole thing. So shoot.

18 I: So as far as I recall, you were at the hackathon sometime in October.

19 S2: That's right.

20 I: In 2013.

21 S2: You probably know better than me, I can't remember when the hackathon was, but that's where  
22 we met.

23 I: It was 2013, it was at Access Week. You took up the project, came on board,

24 S2: I was very interested, I saw it and was very interested, I was thinking of going into that, currently  
25 I am actually looking at that type of thing. It's a very nice, the virtues of it are great, the free  
26 intellectual property for everyone to use, I think is really great. That's what attracted me to the  
27 project, I mean like straight up, I think that was it, it's a very noble project, I think it's good, MIT's got  
28 one, Oxford's got one, there's a few going up, more and more. I read an article recently about this  
29 open access education taking off, online courses are now outstripping professional go-in colleges  
30 and universities all over the world, so this is like a great move, a great project, I was very passionate  
31 about it, at least initially when I started. (laughs) So yeah, that's when we met, okay I'll let you  
32 continue, you've got your bullet points.

33 I: That's good to know.

34 S2: That's my introduction.

35 I: So how did you go about selecting lecturers to approach?

36 S2: You guys basically, you didn't direct me, but you were like, go in house, speak to people in your  
 37 majors, people that you're comfortable with, people that know you, which I think that was really  
 38 good. Because the people that didn't know me, I only spoke to one in [Humanities Department D],  
 39 she knew me but she only knew me from a little course in second year, she didn't really remember  
 40 me, she just never got back to me. While the people that knew me, they were great, they would stay  
 41 in contact, they were good. So, I went for the [Humanities Department C] and [Humanities  
 42 department E], my [Humanities Department E] major was done a few years before, and most of the  
 43 [Humanities department E] stuff anyway, [redacted] and what-not, have very good sites so I didn't  
 44 think that was the most pressing. [Humanities Department C], should I go into it, or do you want to  
 45 stick to your points? I'm a bit of a waffler. It's a goldmine for interviews.

46 I: No, absolutely.

47 S2: So I went to the [Humanities Department C] ones, I approached the people I knew the best. I can  
 48 say their names, I don't mind, but I don't know, I don't want it to get back to them. I can still imply -

49 I: We'll anonymise the names, so no names need to go anywhere

50 S2: So I went to [Lecturer C] and he was really good, he was just very busy, he was course convener  
 51 of the third year courses. And he was kind of like, let's leave towards like, the end of the year, it  
 52 wasn't very good, because I came on quite late in the project, I didn't actually have much time to go  
 53 too far. You guys recommended rather get a few, get that work done, then find some more, keep it  
 54 steady, which I thought was a good idea.

55 S2: Then [S2M1 department], I got some good ones in [S2M1 department]. So basically I took over  
 56 from this one lady, L2M1's project. I don't know how she was associated with the group, you guys  
 57 put me in contact with her. She had some previous videos, so I went through them, I also spoke to  
 58 [Lecturer D], he was very interested, his were good, because his lecture slides all had quotes, he  
 59 quoted all his lecture notes, and his slides were pretty good. He did clinical third year as well, and  
 60 he's very, he was very open. Also, he has African [S2M1 course], he's in charge of African [S2M1  
 61 course], he specialises in that, I thought that was quite a good little clip. But he's also a counsellor,  
 62 he does pro bono, actual and lectures, and he didn't lecture us as long in my honours year as I  
 63 thought he would. I dunno, I don't think I approached him sternly enough, I think when I  
 64 approached him, he said this is a great idea, we must chat about it, my next chapter's about like an  
 65 essay, so this didn't pan out properly. But yeah, that's how I sourced them out. I spoke to [Lecturer  
 66 E], [Lecturer C], [Lecturer D], who else, L2M1, there was someone I spoke with...I don't know, they  
 67 were in the [S2M1 department], why can't I remember them now.

68 I: Ah, don't stress, I can send you the list of names.

69 S2: It'll come to me.

70 I: Was it also [S2M1 department]?

71 S2: Yeah. That was all [S2M1 department]. The [S2M1 department] stuff seemed tough, like  
 72 [Lecturer F], because his stuff seemed easier, but the [S2M1 department] stuff, a lot of it seemed,  
 73 what I suppose we'll get to it in later questions, but it seemed easy stuff, because the referencing is  
 74 already done, he practically did half of the job for you.

75 I: And then [Humanities department C]?

76 S2: [Lecturer C], he's third year, he was very nice, he was also helpful, but it didn't go anywhere,  
77 because at that stage I was in [S2M1] honours and I didn't actually communicate with the  
78 [Humanities department A] department as much. I've still got emails, he sent me something, but  
79 again it was after June, I should actually...you closed the whole project down.

80 I: Yeah, the project was finished.

81 S2: I can still forward it to you.

82 I: We may possibly investigate our funders doing strange things, they gave us money at strange  
83 times, so.

84 S2: Yeah, you're not in control of that. Well, definitely look up [Lecturer D] and [Lecturer C], they  
85 will help.

86 I: Fantastic. Well, what I'm hearing is quite a few positive points and positive materials, but the  
87 feeling in the departments?

88 S2: Yeah, I actually didn't get anyone who was against it, funnily enough, no one was anti it.

89 I: Fantastic. That pretty much answers the next question, the familiarity did help, but the people  
90 who didn't come back to you were not as -

91 S2: One of them was [Lecturer E]. She was pretty busy, I did say exactly, but I hounded her, I went to  
92 the department, because she's down the road from [Lecturer C] and I was like, what's going on, and  
93 she would say "oh, sorry, I'll send you something" but it just never came through. I didn't want to  
94 hound people either.

95 I: Absolutely. You were an Honours student at the time, did you feel that you had been a student of  
96 a different group, like an undergrad, or a Masters or PhD student, would that have affected you?

97 S2: If I had been a second year, it would have been great. I would have had more time, to make  
98 more money. Third year, I worked very hard, it wouldn't have been...then I took an extra course in  
99 my first year of honours, so that was quite a loaded semester for me, it definitely didn't work in my  
100 favour. But yeah, I think undergrad would have helped. The problem with first year, yeah, I don't  
101 know if you've quite gotten used to academics, academic writing, you know the first lectures you  
102 see, you might base too much on it, like these slides are rubbish, these slides are great, and not  
103 realise I think as much. Because lecturers and lecture slides vary considerably. I was thinking, just  
104 [L2M1]'s stuff was very, I mean she did a meditation session, and she had hands-on tutor stuff, and it  
105 was very different to say, any [Humanities department B] lecture I've ever had or a lot of [S2M1]  
106 lectures, it was nice and good, but it was just different. Like [Lecturer C]'s stuff in [Humanities  
107 department C], he uses a lot of statistics, so I don't know how rich his lecture slides would up being,  
108 because it's a lot of stats you could get, but it works well with him discussing it. But then he'll  
109 question students a lot. He also wants to make sure students are paying attention, so that might not  
110 necessarily help, I don't know.



111 I: In your role as sort of as, with greater seniority, so as a first or second year you may have a lot of  
112 time, but do you think lecturers would have responded to you as a first year undergrad coming and  
113 talking about these kinds of things, as opposed to your position as an honours student?

114 S2: Knowing the lecturer is better, I ask a lot of questions in my lectures, I build up familiarity with  
115 my Profs quite well, so I don't know. If you're like that in undergrad, they probably will give you a bit  
116 of time, but yeah, I think they're quite open to it. I got the vibe that they were all feeling like they  
117 wanted to get involved in this IT revolution. [Lecturer E] was younger and she actually, she'd been  
118 keen on it before. But with the older Profs, there was no like, nobody was anti it, they all thought it  
119 was good. But yeah, just time, they were all just like, I'm course convener, and I'm this and I'm this,  
120 so.

121 I: It's a familiar refrain, certainly.

122 S2: And it doesn't help, because when you're busy they're not busy, and when they're busy you're  
123 not busy, that doesn't help at all. I had that problem.

124 I: 2M1 has a particularly interesting work schedule.

125 S2: She was on sabbatical, so she wasn't even there, then she was in America for a while, and then  
126 she came back, and she was helpful, but let's stick to the topic, we'll get there, we'll cover your  
127 bases.

128 I: So you said there was interest in the IT revolution, as you said. Do you have any sense, from the  
129 courses you'd been on and the lecturers that you approached, that they were heavy users of other  
130 kinds of online communication?

131 S2: I don't think [Lecturer D] was, no, I don't think he was. But that I don't know for sure. They do sit  
132 at their computers all day.

133 I: But in terms of sharing?

134 S2: The [Humanities department A] department are more clued up, [Lecturer E] was very clued up,  
135 she was great. She does more of the global studies, her stuff is really interesting. I might still hound  
136 her some more, I found it personally very interesting, I was interested in a lot of it. She uses a lot of  
137 internet sources, she used up to date journals, she's very interesting, very up to date, she's very  
138 clued up. She's young though, she's in her thirties, you see these are things I don't want to get out,  
139 just now I'm saying something terrible.

140 I: No need to mention it at all.

141 S2: Why, I don't know, but in general you do see the trend of the younger lecturers being more tech-  
142 savvy than the older Profs, but it also depends on what they teach. I don't want to say the  
143 [Humanities department B] department was archaic, but it's just that [Humanities department B] has  
144 been around for so long, it's a different type of ball game. I think that's another reason why I didn't  
145 approach them, it just seemed odd. I don't know, would you guys have wanted [Humanities  
146 department B]?

147 I: I think that in the stage of the project we were at, we would have wanted anything, but it's just  
 148 that the amount of time it takes to do the materials is quite intense, as you know. We wanted to  
 149 approach every department but we'd need a student in every department to do that, because it  
 150 takes a lot of reworking.

151 S2: I think you could use students from any department, you don't even need to establish familiarity,  
 152 but then you need students who are going to go, you have to go to these profs. They'll email you,  
 153 but it'll be two days later. You need to go them, you go to their door and knock on their door, and  
 154 that's what you need, if you've got that, I think you can hit up any department. Familiarity with the  
 155 subject matter obviously helps, because some of that stuff you've got to practically rewrite, or  
 156 reinterpret it in such a way, and with the maps and stuff, I had to redo the map. It sounds silly, but  
 157 there were arrows of different sizes to different places that does end up mattering. You want it as  
 158 close to the same article as possible. It was little things like that that made the process a real –  
 159 (laughs)

160 I: And these lecturers that you approached, did any of them have any prior knowledge of open as we  
 161 define it, so open education, open resource?

162 S2: I don't think they truly knew what I was talking about. They knew it was all like, 'I used open  
 163 source software', they understood that, as in free, anyone can edit it, that kind of software, a great  
 164 thing, but I didn't want to lead them down a Wikipedia pathway either. They didn't truly get it, but  
 165 they knew about free education being offered by universities, they'd all come across that notion,  
 166 offering courses for free, offering subject matter for free, offering education tools for free online,  
 167 they were all familiar with that, but beyond that they hadn't read much on the subject matter.

168 I: Interesting. This comes a bit out of nowhere, but who do you think were the lecturers that most  
 169 wanted to engage with the materials, if they're going to offer them. Who were they targeting these  
 170 materials at?

171 S2: [L2M1], I thought she was initially targeting her own students. [Lecturer D] asked, well, he didn't  
 172 enquire, on the fly he kind of was like, are laymen going to understand this? I didn't chat to him long  
 173 enough about it. I don't know if I could say who they were aiming it at. I introduced it as this is  
 174 accessible to anyone, just make it decent. Basically because we were transforming lecture slides to  
 175 students, that was kind of the benchmark I was working on, just make it a good lecture for your  
 176 students and that's what we're going to use, whether its students at other universities or whether  
 177 it's for UCT students who were looking at it. I think that was [L2M1]'s motivation, just to get her  
 178 slides online so that students could just look them up online, students that missed the course or  
 179 whatever, she just wanted to extend her level of teaching, actually, it was good. You see UCT's  
 180 changed now, they film in a lot of lecture venues, don't they, with nice cameras and they fixed up  
 181 the sound a bit, so it's a real pity that the project's not kicked off now with all the nice materials  
 182 available, but yeah. So, sorry, the question...?

183 S2: So what I'm asking was, will the other lecturers see this material?

184 S2: And they felt that they needed to make sure that they didn't make an ass of themselves, they  
 185 were well aware that it was just students. [L2M1] was overly worried that lecturers and potential  
 186 recruiters and somebody that she might want a job from, that somehow it get linked back to her if

187 she said something that was stupid or incorrect or potentially even biased or dangerous, she doesn't  
188 want it in there. And this feeling grew over time, with edits. But I'm sure we'll come to that.

189 I: Yes, yes we will.

190 S2: So, yeah, I think they were definitely aware that other professors could be watching this.

191 S2: Going to the actual materials themselves, it's part of the big scheme, but I don't want to focus so  
192 much on it.

193 I: It's good, it's good.

194 I: So once you had gotten to the materials, in this case from L2M1, she's the only one, if I can  
195 confirm?

196 S2: Yeah, I did the EGS one, but that was just too much.

197 I: Oh, that was [Lecturer E]'s.

198 S2: Yeah, see now there's someone who's completely embraced technology and gone too far. She's  
199 actually plagiarising, I'm sorry, we can take that out. I mean, not plagiarising, but she was just  
200 putting on so much stuff, she was using whole websites, it was just too much. You basically needed  
201 to completely redo it. I know you passed it to someone else. I got started on it, and I did quite a few  
202 pages, but it got to the point where I was tracking down what these pages were using to see where  
203 they got the information from because they weren't providing any sources and I wasn't sure if they  
204 were plagiarising or up to no good and you didn't know and it became a real spiral. The thing is she  
205 was just pointing out, she was not saying shock stats, but she was bringing out big stats to make a  
206 nice broad intro, and it probably wasn't all necessary, and I needed more sit-down time with her, but  
207 it didn't work out that way. Yeah, basically, L2M1 is what I got, but it might have been something  
208 else in the beginning, I can't remember now. But L2M1 is where all my time and energy went.

209 S2: Okay, so I got the videos, and I'll get the slides and additional material if they want, but generally  
210 they just stuck to the slides. Sometimes I would get slides from other years as well, I wouldn't  
211 necessarily get the slides in the video, I'd get the slides from two years back, and she's like, 'I just  
212 changed on the fly, some I left out, and some I put in'. So I'd get a jumble of slides, and the actual  
213 video, and I can comment on it. Sometimes the videos were terrible, the audio would just drop, not  
214 even when she's away from the mic or anything, but she started using the clip-on mic, which was  
215 very, very useful. But the sound, just generally, would just drop, which was a real nightmare,  
216 because the software I was using.

217 S2: That was one of the big problems of the project, I'll just talk about now. That windows media  
218 player is an absolute nightmare, and the material wasn't...maybe if the material was better quality, it  
219 wouldn't have been such a hassle, but I don't know, it wasn't the best video. Sometimes you  
220 couldn't see, I had to expand resolution a bit to make it better and more approachable, otherwise  
221 you were just looking at a silly little block and it wasn't engaging, not in this day of HD and you're  
222 looking at a 320 by something box, it was ridiculous.

223 S2: And the lecture slides, as I said, they were just, they were just what they would show, so you'd  
224 skip through it, it wasn't including all the stuff spoken about in the lecture, generally her stuff wasn't

225 quoted, wasn't referenced, and when it was, they weren't always the exact ones, they were close,  
 226 they weren't always the exact ones. I'm not blaming the lecturer, as I say they throw this stuff  
 227 together for the students. That was a big thing, making it now suddenly copyright, and open access,  
 228 that transition, that's a big problem for the project to overcome.

229 S2: Some of these lecturers will throw together their slides 15 minutes before. [Lecturer F] would  
 230 throw them together 15 minutes before, it would have spelling errors in it. He didn't think much  
 231 about the slides, his was much more on the video, and the way he approached lectures was about  
 232 getting certain ideas to students. Maybe he's going to make the test more about this, so he wants  
 233 his students to be more clued up on this, definitely. Getting then all that stuff on to open access,  
 234 legitimately referenced, a lot of the stuff in the lectures lecturers would throw out.

235 S2: L2M1 would do that, but I think she was more motivated by potentially looking bad. And its,  
 236 that's a real problem. Because lecturers don't, I don't know if UCT moderates professors, I don't  
 237 know how they do it, if it looks through their slides and make sure they're all doing their job, there's  
 238 probably some departmental structure like that but you still get... some of my lecturers would have 4  
 239 slides for their lectures, some wouldn't even use slides.

240 I: Do you see that as a problem?

241 S2: I would see it as potentially difficult to get it into open access stuff, because the way lecturers  
 242 put together their lectures, don't think of it going up and being held to scrutiny by colleagues,  
 243 professors, I mean they're really just teaching a bunch of undergrad students. See I was dealing with  
 244 undergrad research materials, I wasn't even with post-grad and I think that at undergrad, they're not  
 245 too...I think with humanities and sciences they'd be quite open to sharing everything, commerce  
 246 they would be more reserved, I don't know.

247 I: Can I ask where you get those impressions from? To be honest, I've got actually the same  
 248 impression.

249 S2: I did a few commerce courses, and who knows, I didn't think were money-driven. I didn't get that  
 250 feeling, but they were like, 'we deal with businesses part-time, while I lecture, this isn't my only job.  
 251 My students are all hell-bent on making money and thinking in a business fashion, I have to uphold  
 252 this reputation'. Yeah, I think they would be more reserved with what they they teach, maybe their  
 253 lecture slides would be better for it. (laughs)

254 I: Perhaps, like you say, they see Humanities as free and open, not in a business way.

255 S2: Definitely, and in science half that stuff, well, most of it, everything in undergrad science is I think  
 256 is free and you could get it, short of the medical sciences. And humanities, I think they're all keen,  
 257 but because it's the liberal arts and it's got your social sciences, I think the way you could put  
 258 together your materials and teach your students as long as you deal with certain big topics, the way  
 259 you get to them, the sources you use, it's different. It's not always going to be of this higher calibre.  
 260 With the sciences, you'd imagine that a science professor would be teaching at a different level, all  
 261 his lectures are going to be the same, inorganic will be this way, organic will be that way, he'll go  
 262 over examples like this. In humanities, you will see the professor just skip out a whole section  
 263 because he didn't have time for it, but it's okay, this is just one part of the discipline.

264 I: So their material is driven more by theme and theory, personality-driven in a sense.

265 S2: I think personal style makes a big difference in the humanities.

266 I: The nuts and bolts of what you actually did, let's talk about that.

267 S2: So, get the videos, put them on, run them through this terrible program. Basically I would...it was  
268 easy to use but it would crash on me all the time. No other programs on my computer would crash. I  
269 know it's just that program. I'd have to free up memory for it and go through a whole thing. I ended  
270 up just making millions of saves. The software was terrible, if I'd had a Mac maybe it probably would  
271 have been better, maybe with this new material it would have been better. But that windows media  
272 player was an absolute bane. I lost a lot of work, it was a real nightmare, because of the way it  
273 worked once I started cutting. So yeah, basically I'll talk through the problems and limitations of this  
274 software, which will explain what I did.

275 I: Okay, sure.

276 S2: So I'd get this video, basically combining the lectures slides with the video. So the idea is that you  
277 want them to watch the lecture, so that as a student you're focussing on the professor a lot and  
278 then the bullet points on the slide. So as a topic they'll go through them and you'll see the bullet  
279 points. So one of the things I had to do was make sure that that continuity happened, because the  
280 professor would talk about the next slide and not change the one on the slider, so I would come in  
281 and change it, I could edit it and slide in the relevant slide for that time, it would pop up for a few  
282 seconds. I suppose this is where my style came in, I didn't quite know how to do it. Initially I would  
283 leave the slide up for a long time, and you were like no, it can be much shorter than that, so I had to  
284 chop down a few, so I had it for about 10-15 seconds, maybe I take longer to read than everyone  
285 else, so I liked it to be up for longer. It worked out better towards the end, I had the points up for  
286 shorter and I got better at it.

287 S2: So I get the video, and I get the slides. And I would cut the video where I would put the slides in,  
288 and I would remove the actual video component and keep the audio component, so the video would  
289 be of the slide, a jpeg or png, I ended up using them to make them smaller, and it would pop over  
290 the slide. The slides, I would also have to edit, but I will get to that now. So the big problem with  
291 windows media player is once I started cutting and editing in those slides, the audio would  
292 sometimes mute itself. I would have to unmute the audio every time there was a cut and a new  
293 slide.

294 S2: Sometimes because of that unmuting it would crash, and I would lose from since the last time I  
295 had to unmute, so it was a bane. So I ended up making a save after every transition, and what I  
296 would do is record all the necessary cuts at the exact time, which was another difficulty with that  
297 program, which wasn't very good. Friends of mine sent other programs to me that did editing, they  
298 were like "oh my god are you mad, what are you using this software for" but the problem was, the  
299 editing software, I didn't, I should have watched more tutorials, but I was like let's get it done rather  
300 than messing around learning new software. So, I stuck to media player, and it did work at the end  
301 of the day, if I did this process.

302 S2: So, I would record on paper, get every cut, then get all my slides in order, then one big cut, and I  
303 would cut it out, and delete the little bit of video stick in the slide for the exact piece of time, and it

304 would kind of, look like a funny little jigsaw puzzle, and I would do the whole thing, saving every  
 305 point and then minus the odd crash when I'd have to reload the program but because I was saving at  
 306 every point it was fine and I got the thing done. For the audio, I'd sometimes have to check at the  
 307 end if it lagged, but I only had that problem with one video, so it wasn't an issue. Then that would be  
 308 the finished product as it where, I'd stick in an introduction, stick in any references at the end or at  
 309 the bottom of the slide, sometimes it was nice and easy, generally at the end it was more useful.

310 S2: And then I'd also have to cut certain parts of the lecture video out that the L2M1 didn't want, or  
 311 where there was dead air, or when she'd ask somebody something and you couldn't hear their  
 312 response so it was just useless having it. What else...there was like, interruptions, silly stuff, but  
 313 you'd be surprised; there were quite a few that cropped up. And then the slides, you can stop me at  
 314 any time.

315 I: No, don't worry.

316 S2: The slides, then I'd also have to look through, basically I was going from the video, so I'd have to  
 317 watch the video first to see what was relevant then go back to the slides and I could leave relevant  
 318 slides at the end, I did it in one or two, but in the end it didn't work out, I can't remember why. Well  
 319 I supposed it comes down to the editing part of the videos, I'll get to that process, we didn't didn't  
 320 use a lot of material. So, I'd edit in the cuts in the video, then change the slides so that they matched  
 321 what the lecturer was talking about and make sure they were referenced properly, so there's  
 322 nothing I couldn't find a good reference to that I had to pull out. A lot of it was written in a way that  
 323 it would come from the lecturer, it wasn't really stepping on any toes, there wasn't any copyright  
 324 problems. That was basically it. Also with the lecture slides, any type of graph or pictures and stuff, I  
 325 had to remake, that did take time. Again, I'm comfortable with Paint, like paint.net and all that. I  
 326 guess its not the best program to use but I use a lot of open resource stuff, I got the maps from Wiki  
 327 Commons, Wiki Commons was my best friend.

328 I: It's really great, isn't it?

329 S2: And Google's option to search for licence-free stuff really helped so I could use maps and things,  
 330 I could grab the maps that were free, and I basically had to fill in the details on them – stats, the HIV  
 331 notes, there was quite a few maps. The tables, I fortunately didn't have to do, I found the website  
 332 where she got them from, they were referenced and I used the images from that. That was a  
 333 reference reworked, it was easier. That was basically the process.

334 I: You do your changes, you go to L2M1, you say 'this is what I've done, let's talk about it'. You  
 335 mentioned before that she made a few changes and became more critical as the process when on.

336 S2: I don't know how big that block is on your rubric over there, but for me that block should have  
 337 been, it was in my mind quite small and quick, I thought it would be quite an easy process. I looked  
 338 at it as 'you give me your video, you give me your slides, I put together this piece, I show it to you,  
 339 you tap me on the head and you say 'Look, take out that, take out maybe that'. What I had with  
 340 L2M1, which I don't know if I would have had it with other lecturers, she looked at it kind of like this  
 341 continuous editing process, which really got to me. Because she was wanting stuff in – she had the  
 342 original videos as well – so I would take them out, I didn't take them out because of bad judgement,  
 343 she wanted them out because of bad quality or it sounds better on my video. So it's all fair, she's

344 covering and checking her bases, but on my side I was editing and reediting an reediting and the  
 345 problem is that as the process went on, I think she got more and more worried that her identity and  
 346 name is linked to this material that she's releasing. I think that she worried a bit too much, I think  
 347 maybe profs mustn't get too hung up about this, because really, honestly, how many people are  
 348 going to look through all your lecture slides.

349 S2: Look, it's possible that another university may ask 'have you done some open content' at a  
 350 university you apply at, and let's look at a lecture of theirs. So yes, it's possible they'll look at you in a  
 351 lecture to see if you're good or not, but they'll probably gather that information from interviews.

352 S2: I think she worried too much. She started stripping out work that was 6 hours, I would spend 6  
 353 hours of doing this work and she would remove all of it, 20 minutes of a video and that really  
 354 bummed me out. It bummed me out not only because it was a waste, or bad, like what are you  
 355 doing, it's half a video and it took you forever to do, I'm sorry, I did some really good work, I had  
 356 some really good slides in there, don't you want to look at them? You can't use them, she didn't  
 357 want to use them, but they were really good! I think we needed to establish earlier on that you got  
 358 to be comfortable with this stuff going out there, and if you want, you need to look at every video,  
 359 you can't not look at every video and then decide later on, actually you need to look at every video  
 360 which is what happened.

361 S2: It would have just been easier to have this in the beginning, because then I was working with  
 362 sixteen videos in the end, the Dropbox got full, and we were pulling off and storing it on back-up  
 363 drives. And it was just annoying, because then I would have done just one, like one at a time, literally  
 364 one video at a time, then you watch it in your own time and give it to me. Like if she had software,  
 365 where like she could be like 'red marker here' it records here and then 'end red marker here' and  
 366 you could cut that bit out, just drag red marker, if there was software better suited for it, the whole  
 367 process would have gone much better. And then she wanted to get into the recording software,  
 368 which I thought was great, because now you teach the prof how to do and the prof is doing it for  
 369 you, boom, that's what you want ideally. But at the same time, it's on the prof's time. She watched  
 370 the videos in chunks, she would put them aside, she was on sabbatical.

371 S2: So she watched the videos in chunks, and she wouldn't quite remember what she didn't like in  
 372 the videos, so she would ask me to look out for stuff on videos, so I would try that but I would also  
 373 be making my judgement on when to cut this knowledge short, and it feels like its defeating the  
 374 purpose of what we're doing. I want you to use all of it, I really doubt you're going to say anything  
 375 that --- but then she does do health [S2M1 department] in South Africa, and some of the stuff our  
 376 health leaders have said, you don't want to put your foot in it.

377 I: They're so good at doing it anyway.

378 S2: She does AIDS and stuff, so I can understand why she's worried. With [Lecturer D]'s stuff it  
 379 wouldn't have been any better, because he was doing a lot of critique of mainstream [S2M1  
 380 discipline], he was saying it's too Western-dominated, we need to push more African, indigenous  
 381 [S2M1], very interesting stuff, great stuff. Actually he probably wouldn't have too many problems  
 382 because, again, he referenced all his work and it is South African.

383 S2: But with her, her material I much preferred the [redacted] material she did, it was much easier to  
 384 do the editing, the editing was easier, she got more and more worried about the HIV stuff. I did all  
 385 this stuff and she just yanked it out because she was like "I don't know if I can say that because  
 386 prevalence rates change and this changes and that changes and I don't want to give out the wrong  
 387 message." Also she was a good lecturer, but I think with these good lecturers they sometimes say  
 388 stuff that you wouldn't publish, but it fits that point well. Like she'd make a joke about condoms but  
 389 she said something about condoms which maybe mainstream...like its always you have to use a  
 390 condom, every time, but she was talking about long term partners and they just don't, and how you  
 391 approach condom use during therapy, you can't just like, if they aren't using a condom, they aren't  
 392 using a condom, you want to still encourage it but you can't dismiss any other information. Stuff like  
 393 that, in saying certain things, you open it up where you might say something that's a bit – and I  
 394 agreed with her on one or two parts because it could be misconstrued and she could look bad.

395 S2: But in that sense then, with her material I needed to sit there with her and do it. Her doing it on  
 396 her side, me doing it on my side and then us getting together. She wasn't in the office for long  
 397 because of the sabbatical. And then with the others, with [Lecturer D], he was out the door all the  
 398 time anyway, it's not like you can get hold of a lot of these profs that easily, you can't sit with them  
 399 for four hours. I mean, that would be ideal, 4 hours once a week you would produce great stuff quick  
 400 and easy, but it's not, it's a half-an hour thing, once a week checking over stuff.

401 I: So if we were to say, radically shift the whole thing...what I'm hearing from you is that taking the  
 402 materials because the lecture environment is not the same, you can talk to a bunch of people in a  
 403 closed-access room in a different way than when you're talking to an online audience.

404 S2: Basically the online audience is the big thing.

405 I: So if you'd approached it before she'd even started doing the lectures and said 'we want to make  
 406 this an online video, let's change the script.'

407 S2: It's more work for some of the profs, because for some of them it's their style, they're on the fly,  
 408 they're doing so many courses, teaching so much stuff, they're using old notes but they'll add new  
 409 stuff, pull stuff away. I think it would be better to approach all the profs and say 'look, couldn't you  
 410 make your stuff more open-content friendly', making it for, as you say, this open audience so  
 411 basically there could be a journalist sitting in your lecture theatre, there could be a future employer  
 412 sitting in your lecture, so it does add a lot of dimensions, which I think some profs would be a bit  
 413 adverse to, or at least they might agree to it and not do it, stuck with the problem with them saying  
 414 'I don't want you to use all this material, you're infringing on my rights to lecture the way I want to  
 415 lecture, the way I want to teach these students'. I don't know, it's tough, because you don't know  
 416 whose watching it. You could have a journalist watch it, different people with ...well students,  
 417 they're there to learn, they need to be enticed. My one [Lecturer D] would swear all the time, the  
 418 other lecturers didn't condone it, like 'sho, he does swear all the time' but it was good, it would  
 419 really punch the point home and it worked. The students these days, come on, its fine you're not  
 420 really going to offend anyone. I think because of lecturer's styles, I mean you could tell them but not  
 421 many of them are really going to change their styles, it's a different audience. Some lecturers might  
 422 just be blasé and not mind, maybe they're stuck at UCT and they don't think they're going anywhere  
 423 else so they won't mind too much.



424 I: You've answered almost all my questions, which is great. Just to get a confirmation though, and  
425 I'm pretty sure you've answered this, but if you could imagine a different kind of project where the  
426 role of the student is as ambassadors. Go there, explain the process, even tell them the software  
427 they could use, show them previous examples and say 'you should do this, cheers'.

428 S2: Like a mini hackathon, yeah.

429 I: Almost like a seminar type thing, but doing none of the work at all, nothing. Literally nothing.  
430 Maybe providing advice.

431 I: Basically coming in and giving them a seminar on how to do it and providing them with a nice pdf,  
432 this is the step by step process, potential problems you might hit, contact us if there are any further  
433 questions.

434 I: Would that have worked?

435 I think that's a great move, I think that's very good. I think that would work across the board. I think  
436 that you would also see just out of what lecturers do it, which lecturers are interested in going  
437 forward with open content, and which are just saying it because they want to hop on the next big IT  
438 bandwagon, as it were.

439 I: Interesting, because one of the things you raised earlier was that they're interested but they don't  
440 have the time. They cannot invest in it, because as you know it takes a lot of effort actually, and  
441 perhaps your experience was more tedious than it needed to be.

442 S2: I definitely got that feeling, way more than it needed to be.

443 I: Regardless, even if it had just been the one session, six hours' worth of work for a single video, do  
444 you think they could have done it without any kind of support? If they could have, would they have  
445 done it, let's put it that way.

446 S2: Of course they all can, they're all profs and they're all smart enough, this isn't something  
447 difficult. If you were using my media player you would have given up, no doubt, I only carried on  
448 because I literally started going through my processes and services just to try figure things out. This  
449 is a Windows program, why are you crashing all the time, I was very irritated with that, I ended up  
450 killing services and sub-processes to get it to work properly and free up some memory. I don't think  
451 they would have managed to go through it. You need to get proper software and go through it with  
452 them. I mean, they all show interest, so if they show interest then they've got to come to a seminar.  
453 When they're all going to be free to do the seminar is difficult. Sending off a student with material,  
454 that's a good idea, they basically sit down and teach the prof what to you look out for to make your  
455 work far more open content-friendly, and then outline all the benefits for it.

456 I: Interesting.

457 S2: They're going to need to see the software. But UCT's new videos, I looked at it and you could  
458 even just put the video on one half of the screen and the slides on the other half, they've already  
459 done this, this is brilliant! So the Profs, if they just become aware of how they're being recorded,  
460 they should have a bit of impetus and motivation to work in this kind of direction. Because UCT is

461 filming you, okay it's not the big wide world but UCT still counts, what you say to UCT must still  
 462 matter, you can't be too rogue, you shouldn't really be swearing.

463 S2: So yeah, I think it would be a big help, having them sit down with that prof and showing them  
 464 would be a big help. Then the Profs what change and put in a bit of effort, you send them back. It  
 465 would be a long-term thing, you have to cater for their time constraints too, you've got to, otherwise  
 466 it just doesn't work.

467 S2: Initially when I was meeting with her and I met with [Lecturer C] and them, the first time it was  
 468 just a ballpark idea, then it was can you get together some slides, I'll track down the videos. But  
 469 because they were lecturing, that's the other problem, actually, [Lecturer C]'s thing was in the old  
 470 snake building and there were no cameras, hell the roof was falling apart, no one was recording that  
 471 lecture. But people did recordings, people did voice recordings, they record those lectures on their  
 472 phones now. I mean, professors, you'd better start watching out, they can put that up and tweet  
 473 that and you can get in trouble right there, whether you want to or not, it's said and its out there. A  
 474 lot of people did, actually every single of my honours classes was recorded by somebody in my class,  
 475 there was a recording and you could it get it off Facebook if you missed the lecture.

476 S2: So students are already taking on this approach, they're not being left behind. But with the new  
 477 software, I think 10 minutes from the prof seems to equate 30 minutes from me, that may just be  
 478 my experience, but they could do three times, even longer, they could do so much more than I  
 479 could, I'm just chasing you down. In my situation, I just kept taking back this material, and I kept  
 480 getting reedited, and I thought, this is done, I even called it done in the files and she's like, no no no,  
 481 I just want to check over it again and when its done I'll move it into his file and we'll just keep that in  
 482 a backed-up record. But she's still got videos which I didn't even get to put up, because they were  
 483 done and I think she just forgot to check over them, and they were actually alright.

484 S2: She just wanted to double-check, she was very worried about a poor image coming out. I mean  
 485 you can't blame a prof for that, just the process was hindered dramatically because they didn't get  
 486 the scare in the beginning. You don't actually want to scare them, but maybe it's a bit of a necessity  
 487 to just say, look, all your stuff is going online, anyone can watch it. Get them early on in the process.  
 488 They should do it before they do the lectures, you should have the seminar with the student, before  
 489 the lectures start in the time slot you would have done the lecture, and chat to them and say, we  
 490 want to make it more open source, this is the project we're doing, this is the software, it's really  
 491 easy, there's always somebody in this department who will help you out whenever you need them.  
 492 This way you've got one guy whose gonna work, he's going to be there, there be budget will come,  
 493 their time will come in now, this prof will be able to do it now, I don't know, maybe you will be  
 494 inundated between the last lecture and writing exams, profs have a gap then, maybe they will all do  
 495 it then, maybe you're stuck helping 20 profs in that time period, I don't know. I do think its better if  
 496 some of the profs did some of the work on their side and were more aware of what's going on and  
 497 kind of liaison with the students when they needed help. Basically if the Profs were spearheading it,  
 498 and the students were helping them spearhead it, letting them take the reins and sitting in the  
 499 background.

500 I: That actually kind of answers my question about what the project would look like, if you were to  
 501 design the project, what would you change?

502 S2: To be honest if I were to change it, I would just come out and say 'no, you all have to make this  
 503 open content, all you profs have to listen to me, I don't care, it's more of a workload and you'll hate  
 504 me for it, but we're doing this because UCT is spearheading this in Africa, we want to get this out  
 505 there, we want to be the African university with a big database of open content that underprivileged  
 506 schools can use for free, boom, that's what we're going for.

507 I: So in this case you're speaking as UCT management.

508 S2: They should come down and say it. They don't have to actually churn out big stuff at the end, but  
 509 they do have to try tailor their lectures, maybe some. Maybe not all of their lectures, but maybe  
 510 have some of their lecturers, maybe in the beginning, their introductory stuff. I know MIT, I looked  
 511 at their site, not all of their stuff's free. They'll mention it, and they'll give you a references list and a  
 512 course outline but the actual material isn't free, and you can't get it for free. With other stuff, their  
 513 honours stuff wasn't free. Different departments had different stuff that was free and some was not.  
 514 But maybe say, listen, we just want three lectures out of you. You've got half courses of 12 weeks,  
 515 that's 12 lectures, generally. So you say, you want a third of it done for open course, or a fourth of it.  
 516 Anything. Because a lot of the stuff is repeated over the years, so it might take a few years but in five  
 517 years you'll have a lot of stuff covered, you'll have a good whole semester course covered, as it  
 518 were. Mandate it, say 'look, you need to see one of these students in the beginning, you need to  
 519 become familiar with the software, we're not asking for Houdini stuff here at all, these kids are going  
 520 to help you, they're going to go through the stuff'. When I say the kids, I just mean that people on  
 521 the research team, these students and that will check it out and do any kind of grunt stuff, we just  
 522 want from you, basically, this material's good. Come back to me, but you want them to check it  
 523 more on their side initially. You don't want them trawling through their own stuff, the lecturers  
 524 don't want to redo their lectures, they've been doing these lectures for 10 years, you don't want  
 525 them to sit through that. But once you've done it, you've done it and you have something. So  
 526 mandate it, and ideally, you'll definitely get the profs more involved, and I think you could advertise  
 527 this to students, the profs can even say to students in the beginning of the lecture, saying 'hey guys,  
 528 you help me put this online, extra credit.' Some courses do funny little extra credits, and before you  
 529 know it you'll have an army of students sitting there to help the prof. There are other ways to do  
 530 this, you've got crowds of people, all the knowledge is there anyway, all you're doing is packaging it  
 531 in that open format, and there must be simpler, better ways to do it, than what we had. But its all  
 532 like venture capital to figure out what the best way is.

533 I: And lastly, for the project as is, final question, basically given that we don't have a mandate or a  
 534 way to pressure the profs, for the resources that we do have, what aspects of the project were well  
 535 designed, which were poorly designed. In terms of poor design, I don't think I gave enough support  
 536 to the students. I didn't check up enough, I didn't talk to the lecturers enough, I don't think I was the  
 537 best.

538 S2: But I remember that I didn't want you to talk to this lady, because she could very well be grading  
 539 my course, I'm not going to sit there and say, 'I don't think she handled it as best, I don't think she  
 540 looked at it in the way I looked at it, I looked at it as a long-term project and we can be relaxed about  
 541 it' but I was like, 'no, I want to get stuff out there'. You go and chat to her about it, and just now she  
 542 takes on a different tone with me and I've got her in my seminar next semester. It compromises my  
 543 grades, which you don't want. That's why I didn't send you after L2M1, you definitely could have

544 gone after [Lecturer E] though. She could have done with someone else from the department going  
 545 after and going 'hey, what's going on?' Also my time constraint though, it was funny. When I'm  
 546 booked on I don't know, I needed...the timing. An honours student's time should have carried more  
 547 weight, I should have pushed more.

548 I: The timing was pretty strange. I think you started in December, which is an already weird time.  
 549 That's when you're actually on contract.

550 S2: It was December, you're right, it was a weird time.

551 I: I didn't know if it was going to continue next year or not.

552 S2: That's right, we didn't know. Then I did a bit of EGS and some other stuff, and got familiar with  
 553 the stuff as well. I must say I wasn't totally familiar with the online copyright stuff, I had to get  
 554 familiar with it as well, and the bloody software. And then I did and went off to look for profs,  
 555 because we didn't know if the project was ending, it was kind of like we'll bail on that and deal with  
 556 what we've got now.

557 I: The timing was an issue, it was an awkward time to start, especially considering whether people  
 558 would be around to do the work they were promising.

559 S2: More than that, I can't give someone a file with 15 media player saves in it, and each save had  
 560 ridiculous names, like 'after the and but but point' and 'after the student farts', it was just weird  
 561 saves. How am I going to pass this on and explain this to somebody and how they're going to edit it.  
 562 Also to build up a rapport, I think initially you've got to actually, the lecturer has got to be  
 563 comfortable with you going through all this stuff, and making judgement calls on their stuff. I don't  
 564 think a first year would be able to, they wouldn't take a first year very seriously. I didn't think the  
 565 project went well, but that's because of this editing, that was because of me coming back and forth,  
 566 she's changing this and she doesn't want that in and the software crashes and then I've got an essay  
 567 and I actually just can't meet her and I should have prepped for this better and I should have, but I  
 568 didn't, and I've got to focus on this essay now. Her being on sabbatical didn't help either, but the  
 569 time constraints bottlenecked us into that. If we'd had more time I would have been like, 'I'm bailing  
 570 on her, I'll do her on the side, but let's go back to one of these other guys, let's rather focus on other  
 571 things'. You don't know with the profs how long it's going to take, so I don't know you're supposed  
 572 to gauge. Maybe you do need constant monitoring without infringing on too much, it's a fine line.  
 573 Structure-wise, you were always quick on the email and you always helped clarify stuff. I think your  
 574 support was there, I don't think...I don't know. Maybe I could have chatted to other students a bit  
 575 more.

576 I: In the group.

577 S2: In the group. I think that would have helped a bit. We had the group emails, but people didn't  
 578 come and some people came and it became 'okay, what have we got so far, where are we going.'

579 I: Sure. So more structure, a bit more order, perhaps if there was a contract that we signed with the  
 580 lecturers beforehand, explaining what the process was.

581 S2: That would have been great, to have something in writing like that beforehand.

582 I: Something you could yank out, just as a reminder that they signed up for it.

583 S2: Exactly, you signed up for it. We're not going to sue you, come on here, what are you up to, this  
 584 isn't meeting the requirements we were envisioning. You need to tweak your understanding of open  
 585 source and give us a hand. The time constraint was very silly. As I say, these profs are in it for the  
 586 long haul, unless you say, give me three videos for the course and you make it a short term thing.  
 587 They're in it for the long haul, and all of them were like 'this is a great project, I'm on board', I must  
 588 think of some good lecturers. They are all self-aware that some of their lectures aren't as good as  
 589 others, I mean, I won't mention names, but I've had a lecturer admit he was a bit tipsy. So you see,  
 590 this is where you hear this stuff and this is a high ranker. You can spot it when the lecturer's off, like  
 591 they didn't sleep or hungover, but yeah, this guy came back from lunch, it was a late lecture and we  
 592 picked up on it and then he kind of admitted it, and it was like woah. You know lecturers have their  
 593 own style. I don't think the way we did it was too wrong, I don't think it knew what it was in for. I  
 594 think they needed to be a lot more exploring, I think you needed more profs, and you needed to do  
 595 a broad stroke in the beginning and approach a lot of profs, then mine certain ones that get back to  
 596 you quickly, they've got the time do it, they've got the energy, they're more motivated, and gun  
 597 along those points. I think you were trying to do that with the students, basically the idea, but I think  
 598 that if you'd announced it in a staff meeting, 'by the way, some students are going to come and  
 599 hound a couple of you for some open source stuff, be nice', I think that would have helped.

600 I: So maybe trying an exploratory project beforehand.

601 S2: Definitely get them aware. Leaving it up to us is not a bad thing, I mean, we should be able to do  
 602 it, if I had no studies, then great. Then you can make a proper project out of it and approach it  
 603 strategically, these are the people I'm going for, this is when I expect stuff in. But when you're going  
 604 for studies and they tell you 'I'm going to look over this and I'll get back to you in like a week, two  
 605 weeks', you kind of leave it and do your work, and think 'I'll put in my twenty, thirty hours of shifting  
 606 now, it's cool because I'm prepped for it', and they'll be like 'I don't like this video at all, we're not  
 607 using it, I want this one edited, but the slides I actually want to change and can't you just add this in  
 608 and take that slide out' and you're not prepped for it, the process isn't nicely lined up. Maybe that's  
 609 just me, maybe other people could handle it better, but I would have benefited from more structure,  
 610 like this is what we're going to have, this is the next step, and both of you were aware of it, and  
 611 neither of you were necessarily responsible for it. There was a type of mandate, there was a type of  
 612 thing that sits above you guys. These are profs in your department, you don't want to make them  
 613 work, they'll think you're silly, and I don't want to say they'll bias your result, but it'll be like 'here's  
 614 that annoying kid again' in the staff room. You've got to look for supervisors, you can't have people.  
 615 It's a thing. So you have someone who's not from the department kind of acting like a check, in a  
 616 buddy system for a check-up, that would have helped. Is there anything else? I'm trying to think of  
 617 anything I can say. The time constraints were the big problem, software was a real pain in the ass  
 618 and I did not expect such an editing process with the prof, I thought it could have been done a lot  
 619 better, and it wasn't like it was her fault, and that's ridiculous, I can't say that. Then I feel like some  
 620 of it has got to be my fault.

621 I: It's like the issue evolved as it went along.

622 S2: You just didn't know quite what you were getting into. The experience helps, I could do it a lot  
623 better now, and I'd do it along the lines of 'let's set a rough deadline for XYZ amount of stuff, and  
624 don't be on sabbatical'.

625 I: Thank you, [S2], that is such rich data, it's going to be amazing.

626 S2: Glad I could help, you want rich data. You want lots of rich data.

627 I: Absolutely, thank you so much.

### 1 Transcript – S3

2 I: Any questions you have about the consent form you'd like to raise? In other words, once the  
3 transcript is produced, you'll be anonymised, your name will never appear, we'll take out anything  
4 which could indicate what faculty you're in, what classes you took and what resources you have  
5 used. But it will be attached, as per usual, in the masters itself. Cool. Once the transcription is done,  
6 I'll send a copy to you and if there's anything you feel that misrepresents you, or you see there's  
7 something you've said that doesn't make sense or anything or anything, you can email me and I'll  
8 remove it from the final thing. Thank you very much.

9 I: The purpose of today's conversation is just to do a bit of a retrospective on the Vice-Chancellor's  
10 project. To look at the process, the process of going out and talking to lecturers, actually getting the  
11 material, talking about copyright, open licencing, and, of course an indication generally. Then the  
12 actual process of working through the materials, what changes you made, whether it was difficult or  
13 easy, how you talked to the lecturers about the changes, which ones were easy for them to accept,  
14 which ones were harder to accept., and then just to sum up how the project structure worked, what  
15 was good, what was bad. So we'll just start off talking about the process of soliciting content, like  
16 going out and getting stuff.

17 S3: Sure.

18 I: I know this is the stuff we kind of pre-empted you with in the training, but just in your own words.  
19 How did you select lecturers? On what basis would you select lecturers to approach?

20 S3: So, in total I approached about four different lecturers, and they were all based in the science  
21 faculty, with one being in commerce. So I was specifically supposed to approach science faculty  
22 lecturers. It was mainly material that I had been exposed to, like lectures I'd taken, or courses that  
23 my friends were going to, so those were the lecturers I specifically approached so that the material  
24 could help other people as well and could be easy to work with, which is what I used as criteria for  
25 selecting lecturers. A step would be emailing them and telling them about the project, and  
26 specifically which materials I'd like to us to use because I was doing the courses, and then I'd get the  
27 response via email and finally get to meet the actual lecturers. So that's how I basically solicited  
28 most of the material.

29 I: So, what was your success rate? You said you approached four, or did you get content from four?

30 S3: I think I got content, in total, including other people's work, there was some more that [unclear]  
31 was doing that I brought on board, I think I worked with four lecturers, and the success rate was  
32 about 50%, because the other two I ended up not being able to work with, or not being able to  
33 complete the work and submit it back to you. So I could say I had about a 50% success rate, with the  
34 lecturers I approached, and I worked with two additional materials from the people that were  
35 originally in the team.

36 I: Just remind me of those materials – it was L3M1 alright.

37 S3: There was also the material that I did for [S3M2].

38 I: [S3M2], that's the one with L3M2.

39 S3: The other two were...

40 I: That was the [S3M3]?

41 S3: Ah yes, [S3M3], there's the fourth material with...what was it, the [Commerce Faculty] course  
42 that I never got to complete, I did not...

43 I: [Commerce Faculty course], do you remember who the lecturer was for that?

44 S3: It was, I think I have a name, [Lecturer G] something, I could find that out.

45 I: [Lecturer G], or [redacted]?

46 S3: She's doing intro into [Commerce Faculty course], so I think its [Lecturer G].

47 I: I'll find out who that is, cool cool. Just checking. You were unusual in that we initially aimed at  
48 post-graduate students for this project, then you came along as a first year. Do you feel that made  
49 any kind of difference, do you think that it would have been easier or more difficult to approach if  
50 you had been say a Masters student or a post-doc...?

51 S3: I think it would have been easier had I been a Masters student, because I would have had a  
52 closer relationship with the lecturers and I would have had access to more materials via referrals  
53 from them specifically. Basically for me it was targeting the lecturer for specific material and I wasn't  
54 able to get referrals from them because they would give me whatever they were working on, not  
55 what I was being assigned. So I think if I had been Masters I think a closer relationship with the  
56 lecturer would have helped because I would be sort of in the in circle of the department as a post-  
57 grad student.

58 I: Because I think most of our other students, sort of went and asked "do you have content that  
59 would be interesting?" whereas you actually looked for a specific resource, like "that would be a  
60 good resource, give it to me". Interesting. Did you feel it was easier to approach lecturers in your  
61 own faculty, or was that not really an issue?

62 S3: Working with the science faculty, it differed, it depended on the lecturer itself. For my part I  
63 found them quite easy to communicate with, it's just that some at the end of the process would be  
64 like "I have to remove a whole lot of the stuff myself or I'd need to look into how the project works  
65 itself". It was mixed, because some of them were quite open and welcoming, especially L3M1, and  
66 then the guys who worked in [unclear], they were quite open and willing to jump on board the  
67 project. There were some that were doing a [Science Faculty] and the [Commerce Faculty] course,  
68 who were like, either "my schedule is too busy so we'd have to postpone this to next year or next  
69 semester", or they went "hmm, I'm not sure about this, I'm not sure whether I'd want to  
70 participate." So that was mostly dependent on the person, I think to a certain degree how I  
71 explained how the thing worked to them, so I think those are the two variables that actually  
72 influenced how easy it was to get material.

73 I: Quite interesting that the person who said "I'll have to delay it to next semester" it obviously never  
74 happened, as these things just happen. Do you have a sense of why they felt it would take up their  
75 time and not your time?

76 S3: To some degree, they felt that they'd want supervision of what actually came out and so their  
77 schedules kept them busy on their parts, they thought "I don't want to add this on top of the  
78 workload that I already have".

79 I: Because "there actually going to be work for me", okay.

80 S3: Exactly, seeing what you've done, the changes you've made, I might need to actually give you  
81 input, kind of need me to email you back and forth, either have a sit-down interview and discuss the  
82 material that you've gone through, so for them it seemed like it would be too much work. The one  
83 who totally refused that it will be putting his work on the line by publishing this, he'd really need to  
84 be hands-on and really trust me on a personal basis to process his material and put it out there  
85 because his name would be on the line out there as open source.



86 I: So he'd probably want a post-doc, someone that he'd been working with for a while.

87 S3: Yes, definitely, someone he knew.

88 I: Much much more, really intensive. Makes sense, makes sense. And then the two people, L3M2  
89 and L3M1 for example, they were a bit more hands-off. So you met with L3M1 fairly often, like a few  
90 times at least, but was there more of a sense of "you do it and come back and talk to me" kind of  
91 approach to things, generally?

92 S3: Ja, it was mostly "you do it, come back if you encounter any problems with the actual material, if  
93 you do not understand something" type of basis they wanted me to come back and consult with  
94 them, but for the whole process he was basically hands off, like come back to me if you have a  
95 problem with the content, I can help you whatever you've done. I found that quite relieving on my  
96 part, it allowed me to play around with the material.

97 I: And to actually do the work. I've met L3M2 before and talked to him before, that's an old  
98 [resource] of his that has already gone out of print that was still used, so ja, probably [unclear] but  
99 L3M1 was quite a young guy, relatively young anyway.

100 S3: Ja, it was his first year at UCT, he had a bit of background, I think he's from England, with open  
101 source stuff, it was his first publication that he wanted to turn into a course reader of sorts, so he  
102 was pretty much okay with having it out there because yeah, it was to benefit future students as  
103 well, he was quite willing to have it processed by someone else, it was for his benefit as well and  
104 have it posted somewhere.

105 I: Interesting, this is great data. You may not know this, and it would be fine, but of the lecturers you  
106 approached and the ones you were successful with, were they heavy users of Vula as a system?

107 S3: Um, yes, L3M1 I could say, I'm not sure about the media material, L3M2, I'm not sure how  
108 involved he is academically, but he was quite a heavy user of open content with other materials, so  
109 I'm not sure whether he still uses Vula that much. But L3M1 happened to be conducting a course  
110 using the material, so he was quite a heavy user of Vula in that context.

111 I: That kind of answers my next two questions. So L3M1 had some kind of open knowledge before,  
112 and I'm pretty sure [LecturerS3M2] has as well, with science stuff and so forth. The unsuccessful  
113 lecturer attempts, do you have any sense if they knew about openness before?

114 S3: I'm not sure, I didn't engage them that much, but they did tell me they were working on a  
115 separate project also compiling course reading that they wanted to be open, to be made open  
116 source. So they had someone else doing that for them, compiling the course reading, and who were  
117 going to be working on the lecture slides they'd been using throughout the year. From that  
118 engagement they seemed aware of the whole open process, working on it and making the course  
119 reader open, quite aware of how the process works, I think they knew about it.

120 S3: And the one I wasn't successful with, from interacting with him I got the feeling that he's quite  
121 academic orientated, so you know, articles, research, so the open material stuff seemed to bother  
122 him and he wasn't that aware of how the process worked and so I couldn't say that he was as aware  
123 from the interactions that I got from him, of what we do as UCT and as open content. He was not as  
124 welcoming as he kind of did not trust me and the work I'd be doing on what he was using to lecture.

125 I: Interesting. In terms of going there and pitching the concept, of course we come with a specific  
126 view of why open is good. To get any sense of who the lecturers were really looking to engage with  
127 the material by making it open, so who do they want to read their open material?

128 S3: Sure, sure. With all three cases, it was mainly students of the course, or students in general of  
 129 the university. They knew that people were doing courses that were similar and could benefit from  
 130 the material, be it L3M2 or L3M1 or the intro to [Commerce Faculty course] course, so they knew  
 131 other students could potentially benefit from the material and get access to the resource, even if  
 132 they're not enrolled in the course. So it was mainly other students that the lecturers were willing to  
 133 benefit and they wanted to benefit from the openness of the material. I also think that they  
 134 understood that some people don't know about open content, about the repository, so that would  
 135 be primarily students that would access the material even when it was put up.

136 I: And less so than say, students at public institutions, or high school kids who want to read up on  
 137 UCT, or students around the world, that was less important than UCT, really, focused From what I'm  
 138 hearing, it sounds like the guy who didn't give you the materials was quite focused on more like his  
 139 peers and his colleagues judging his work harshly, and he was less interested in the student side of  
 140 things, just generally, in his normal life. Going now to the actual materials. Do you have, by any  
 141 chance, I know its been nearly a year and a half since the project even finished, let alone started, do  
 142 you have the original versions of the stuff you did, before you started changing them?

143 S3: I'd have to look, it's back on my laptop, but I could get it for you, yes, I did save everything before  
 144 and after the actual process.

145 I: Thanks that would be great, I appreciate that. Going through the actual changing process, what  
 146 was the main things you had to actually do when you changed things?

147 S3: With most of the materials, it was slides, PowerPoint presentations, and they mainly included  
 148 images, that was basically all I had to work with. On special projects it was quotations, or references  
 149 to other books that I had actually to incorporate and make open, then reference in the actual  
 150 project. So it was mainly images, most of the time, and on the rare occasion it would be referencing  
 151 publications by other people. Those are the two types that I had to process.

152 I: Sure, sure. So this weird like chart thing I'm adding my questions to...but it would basically, tell me  
 153 if I'm correct or incorrect, going through the process like 'that image I need to find' or find a licence  
 154 for, dot dot dot, would you ever, and I assume this includes small changes like fixing typos when you  
 155 find them, would you ever do more substantial changes, like actually, say "well, this slide is probably  
 156 not useful", or "this argument is wrong, let me change it quickly". Did you ever come across more  
 157 substantial authoring changes?

158 S3: Well, I did do a bit of editing with grammatical errors for L3M1's work, L3M2's work was  
 159 published and had been used for a number of years so there wasn't that much reading into that and  
 160 changing that as well. With the part of the material that I was never able to complete, intro to  
 161 [Commerce Faculty course], there were slides, notes and examples that were written on the board  
 162 that had been captured and inserted into slides, that I had to remove during the processing of that,  
 163 so those were some of the major changes that had to be made. Some of the references to context  
 164 that wouldn't be useful in the material, I had to remove. So yes, that's basically most of that, and on  
 165 the most parts, which wasn't written down, it would be images that had to be processed. So that  
 166 was basically the bulk of the work that I did. Making the slides open by changing the images that  
 167 were used, alongside with the written material, to make examples, to make illustrations, and then  
 168 I'd have to replace those images with open materials.

169 I: I think I seem to remember that with L3M1's stuff, he did his work in LATEX, I remember going  
 170 through it, and there were a fair number of images, more like graphs than images, there were all  
 171 kind of very cone shaped, quite simple stuff. Did you ever have to do any copyright stuff on that?

172 S3: No, it was all open, made by him, so he was using LATEX or some other mathematical tool, so all  
 173 the graphs he included in his textbook, the notes were made by him so I never had to reference

174 because there was only referencing to the entire collection of materials to him and so that  
 175 everything inside was his and he explained to me that mathematical examples can belong to anyone,  
 176 so I didn't need to reference that.

177 I: Fantastic. Did you do any sort of sequencing on the stuff, so taking it and saying "this point is a  
 178 good point, but that should come before that", or "this slide should come before that", that kind of  
 179 thing?

180 S3: No, I do not remember doing it, no, because I think that would be mostly done if you were  
 181 compiling something, maybe a new material and had been given permission to use someone else's  
 182 work, that would work mostly. But as we were taking presentations of data and removing stuff that  
 183 was not creative commons or licenced, so we'd basically be publishing on their behalf, making sure  
 184 that it was now creative commons material, so there was not that much editing on my part in terms  
 185 of the actual content.

186 I: If you had seen something that was wrong, like really obviously wrong, would you have felt  
 187 comfortable going back to that lecturer saying "look, this is just incorrect, let's take it out, let's move  
 188 it", do you think that would have been more difficult than just copyright clearance type of work?

189 S3: I think it would have been quite difficult approaching them in that way, so what I would have  
 190 done was shown them a before and after sort of context to it. I would have ultimately had to show  
 191 them that I'd removed it or changed it to a specific way, but I wouldn't have taken the work to them  
 192 before editing, I would have taken it as a solution. It would have been quite hard to tell a lecturer  
 193 that "hey, this thing is wrong". I did do grammatical corrections in [L3M1]'s work, he did not seem to  
 194 mind. I did have to change mathematical examples and make corrections to that, maybe if the sum  
 195 or the answer was wrong, I would change that and he did not seem to mind. I do think that it would  
 196 have been more of a challenge if it was a course or something that the lecturer was teaching, I think  
 197 I would have actually struggled telling them as a first year that "hey, this might be wrong."

198 I: To be honest, I think even their peers would have struggled a little bit, because people get very  
 199 attached to their work. I just want to go over the content again. It's [S3M1], intro to science –

200 S3: [Commerce Faculty course].

201 I: [Commerce Faculty course], and -

202 S3: And [S3M3].

203 I: And [S3M3]. Even though the [Commerce Faculty course] never went into the repository, would  
 204 you mind, if it's okay, would you mind sharing that material with me as well, just so that I can see  
 205 what kind of stuff it was?

206 S3: Sure, sure.

207 I: Okay, fantastic.

208 S3: It is done, so I need to give you before and after works.

209 I: Just reminding myself to email... cool. So when you started approaching the lecturers, sorry, I'm  
 210 going back to the beginning a bit, talking about open licencing, and not just for the ones you  
 211 succeeded with. So you said that L3M1 also had some prior knowledge, as opposed to the lecturer of  
 212 [Commerce Faculty course], she didn't -

213 S3: She did, she was working on a separate course reader.

214 I: Yes of course, so all your lecturers had some kind of knowledge beforehand, okay interesting. So  
 215 you didn't have any difficulty relaying the concept, talking about copyright clearance, there was no  
 216 sense of resistance.

217 S3: No, not with the ones who were aware, the ones we were working with and were successful  
 218 with, when the project was concluded. So no, there wasn't that much resistance since they were  
 219 aware of the actual process. With the ones who were not successful, I had to do a bit of explaining to  
 220 them in terms of how it works, and that is where the problems mostly arose. How would I as the  
 221 project member handle the material, where would I get the images or whatever I was going to be  
 222 using.

223 I: Anything else about open licence?

224 S3: I just thought of this now. The future consultations, I think it would be best if we went and  
 225 showed them actual material that's relevant to what they're doing, that has been processed. Maybe  
 226 take the before and after approach to show them how the process works, and what open source is,  
 227 and show them that this was a typical lecturer's note that contained these copyright-protected  
 228 materials, this is what came and resulted, and was open source. So I think that approach will really  
 229 help me with the ones that were unsuccessful. In terms of explaining to them that hey, they give us,  
 230 and they'll provide the supervision at the end and they'll get images and references the works that I  
 231 wasn't able to, which doesn't need my supervision and reflect badly on the answers, so that will  
 232 really help me with the ones that were unsuccessful.

233 I: That's a very, very good idea, thank you for that, that's actually amazing, that's really nice. Couple  
 234 more questions, now that we've got that one down. Did anyone ever actually ask for any statistics  
 235 on the use of the materials after they were already uploaded?

236 S3: I think I sent L3M1, you and myself, he had received quite good viewership, I think at that time it  
 237 was about 300 to 400 views, and this was before the project was over, so I sent him my low statistics  
 238 and he was quite happy that now people were using the actual material. He saw that it was quite  
 239 successful.

240 I: Yes it was.

241 S3: So we got some emails, I think it was a tag-war, I was cc'd on the email, they did not ask for  
 242 statistics themselves, but I was able to communicate to L3M1, that I was able to use Open Access.

243 I: Fantastic. This is just a speculative thing – imagine we had done a completely different project,  
 244 same process of, students would go out, identify good material, go to lecturers, tell them open  
 245 licence, tell them about what they'd have to do, and then just say "good luck, go do this". Like this is  
 246 a thing you should do, or get your own students to do it or something like that, but we didn't  
 247 provide any of the actual doing, just the advocacy work. Do you think that would have been  
 248 successful in some cases, or not?

249 S3: Basically, most lecturers would do a cost-benefits analysis, what would I be getting if I go through  
 250 with this, I have to consult students, find students, incentivise them in some financial way or other  
 251 way, and I'll have to regularly see whether this thing goes through and how that benefits me, so that  
 252 might be the only hurdle that lecturers would have, so I think that most lecturers do not know  
 253 enough about open source to do that. But as was the case with [Lecturer G], she was already  
 254 working on something for someone else and I think she was quite, ja, she knew about open source  
 255 materials and was quite open to it, and ja, she knew about privacy, so I think she was quite willing  
 256 because it was something she was interested in.

257 S3: So yes, I think it would be successful with lecturers who know about the service and themselves  
 258 generally interested in actually helping students. But the people who are not really that aware of it,  
 259 and who will view it as extra work on their parts, they're not going to be willing to take it on.

260 I: Makes sense. Now this isn't really for the thesis, this is for sort of interest's sake, in case we ever  
 261 get to do a second round of this. Let's talk about the positives. What aspects of the project do you  
 262 think were well designed, what worked, what made sense?

263 S3: The repository, the way we were able to get started onto the websites, and the reliability on the  
 264 website's part, also the training over the few weeks, the training was quite good and gave me what I  
 265 needed to get started and do things throughout the project. Also, the communication your part was  
 266 also quite good, the project leader's emails. Yes, emails were replied to on time, and it was mostly  
 267 my side that was lacking. But yeah, communication, training, and also the repository was always  
 268 online really relevant, when you wanted to demonstrate. Um, what didn't work? I think, as a first  
 269 year, I'm not sure how the others were handled, the project could have benefited from more  
 270 supervision, the lack of [unclear] towards the end of project, I ended up not doing some of the work  
 271 and I blame myself for that but I also think that had there been more supervision, instruction, maybe  
 272 a minimum amount of work required per month, that would have been actually quite beneficial to  
 273 the project as a whole, because ja. We were given freedom to work on our own, but a little bit of  
 274 channelling almost would have helped us. So we were basically getting rewarded before the efforts  
 275 so it's quite easy to lag if you know, you're not being challenged.

276 I: Don't worry, you're at all not alone, pretty much, I think one person said it was fine but everyone  
 277 else was like, ja, more supervision, more structure, more system and I totally agree. For me one of  
 278 the big problems with the whole process was just when we started, directly before the second term  
 279 was ending, and you can't do anything for basically three months, that was just a big – and then of  
 280 course the dean must get funding for the next year and all that kind of nonsense. Yeah, the  
 281 supervision and a bit more structure would have been nice for everyone. Even if its just like an hour  
 282 a week, sit here, even if all you're doing is emailing lecturers. Boring, compared to working with the  
 283 materials, but that would have been nice.

284 S3: Talking about some points, whenever we had a heck of a [unclear], we were able to work on  
 285 materials, so something of that structure would have helped.

286 I: Yes. Ja, ja, something like that was in the original project, just it became this sort of public thing,  
 287 when maybe it should have been frequently a private in-house session. Cool. Um, ja, I think that's  
 288 everything. Thanks so much for this recorder, which is going to be great, going to be a massive back-  
 289 up, these things are constantly dying on me, as nice as they are.

290 S3: But I had lots of fun on this project, I actually personally enjoyed working on the materials, I  
 291 enjoyed it once I was able to sit down and start working on something, I really enjoyed searching for  
 292 images, editing, copying things out and kind of making it more appealing, and the whole starting  
 293 from the first page to getting it published as a combined resource actually, I did enjoy the whole  
 294 experience.

295 I: Just so I don't miss anything. So it's team dynamic and that you work on one sort of resources as a  
 296 group and then new resources come in.

297 S3: Okay, so we are starting on a timeframe to finish everything, it's sort of a project to finish a  
 298 history of South African arts, make all the resources available again together there, who we are, and  
 299 then we want to relax and chat. So yeah, I think that's where the student responsibility might come  
 300 in. Also a point we've already touched on, there will be a system for keeping track of who's doing  
 301 what, whether people are helping. We also get to develop something. Seeing whenever I'm  
 302 downloading stuff now, I now pay attention to whether it's copyrighted or protected or something.

303 It's also left a mark on me personally.  
304

## 1 Transcript – S4

2 I: So the purpose of this interview is to give a retrospect on the project to see what worked and  
3 didn't, with a specific role on your role as a adapter in approaching lecturers, sourcing and getting  
4 content, and talking to lecturers about the changes you made to the content.

5 I: Now obviously you had a slightly different process than the other students because you came with  
6 a body of materials ready to go. Can you tell me about the background to those materials, and why  
7 the [redacted] department had this body of work before we approached them?

8 S4: I actually think it's quite important, yeah. We identified that there this was work that was  
9 required, because there were specific skills that students lack at the undergraduate level, so the  
10 concept of preparing them for use at an undergraduate level, but also making them available prior  
11 to undergraduate level, was quite important because what it's doing hopefully but with high schools,  
12 identifying to teachers what is required at undergraduate level, and thus maybe enabling them to  
13 address some of those issues. Aside from that, these are skills that are required at undergraduate  
14 level, and thus any undergraduate should be able to use them.

15 S4: And I think the reason that we were aware that this would be an opportunity for us to make  
16 them more available is because the work that had been done with [Lecturer H] in a previous round  
17 of the OpenUCT project.

18 S4: Aside from that was the other body of [S4M2] material that I acquired. And that was just a body  
19 of course material that had already been prepared and in fact it was at the meeting where the  
20 concept of the project was presented to the Humanities Faculty Board – from that, a lecturer came  
21 forward and asked if I could work with him to prepare it.

22 I: That was L4M1.

23 S4: No, that was L4M2.

24 I: Sorry, sorry, sorry.

25 S4: In reality they are completely different.

26 I: In the previous interview you mentioned the [S4M1] lectures specifically were quite context  
27 independent, not specific to [their discipline], with a lot of general skills.

28 S4: What we actually did... they were actually prepared specifically for [departmental] classes but to  
29 put those online without context makes it very difficult to use them. So the idea was to prepare  
30 them alongside a course and what you try to do was try to feed material from each of the weeks into  
31 the course. For example if you were trying to get the students to read better, or more critically,  
32 you'd bring readings from their actual courses into the [S4M1] materials. But obviously online that  
33 wouldn't necessarily going to work because you wouldn't have them. So the idea was that I would  
34 do some amendments and adaptations. But also, in the context of the department, they can be  
35 adapted as well, so that each course can change it.

36 I: Absolutely. Noticed something quite interesting about the second-year materials; not all of them,  
37 but quite a few, actually had notes in the files, so the raw text, and then quite comprehensive notes  
38 that were left as comments on the work. Which is something we love to do in Open Textbooks and

39 such... but whose decision was it to put those in, and who decided to leave those in as comments  
40 and not put them into the text?

41 S4: I think it was L4M1 who put them in initially. He began that process, and then I added some in  
42 later during the final tweaking. Again it was so that they could be picked up and used, but they need  
43 instructions, otherwise users would just get up these odd tutorials and worksheets discussing topics  
44 without explaining their context.

45 I: I've seen some other people do that in the metadata – so when you find a resource online, the  
46 website that hosts it or wherever the description is will contain the same sort of thing. Was there  
47 any particular reason why you chose to keep it inside the text itself?

48 S4: It was really for ease of use. We don't necessarily expect people to have high levels of skills when  
49 downloading materials. In theory just a student could download it, and then it would be  
50 unambiguous, because all the instructions would be in the actual material itself.

51 I: To swing back to the solicitation process – did you ever actually need to go and approach  
52 lecturers? So you had L4M1's material to work with, and then L4M2 came in with the [S4M2]. Quite  
53 a lot of material, 50-odd lecturers with supplementary materials. Did you go and solicit from other  
54 lecturers?

55 S4: I was intending to, but as you know from my time sheet, I didn't have the time to go out and  
56 solicit. It was also partly because [S1] was covering the rest of the [redacted] department, and  
57 covering it quite well, and partly also because I underestimated how much time I need to work on  
58 my thesis and do some tutoring. I also have to be honest, I hadn't anticipated, because I hadn't done  
59 any of the undergraduate courses... [S1] was aware of what course might be a good fit, so she could  
60 talk to the right people about the project.

61 I: So your first entry into the department was as a Masters student?

62 S4: Yeah.

63 I: Okay. [S1]'s experience was rising through the department from first year.

64 S4: She was aware of the courses where the lecturers were actually putting materials actually up  
65 onto Vula, so she knew which course which stuff was accessible, and she could say "I know this  
66 course, I studied it, I already have access to it, if I go and take it and adapt it..." it's a really easy win  
67 and we could get it out there.

68 S4: Because some lecturers don't like to share their material, because they are worried students  
69 won't come to lectures. And lecture slides aren't full lectures, but some students think they are, so  
70 they'll skip lectures and just use the materials. When it comes to exams, they'll contact the tutors  
71 and say "I don't understand any of this" because they rarely attended the actual lectures. And that is  
72 a tricky thing, in terms of how we make more materials available because a lot of what's presented  
73 is presented verbally, and there is a desire to ensure that students attend lectures, because the  
74 educational process isn't just watching a lecturer, it's engaging in the debates, asking and being  
75 asked questions. There's a concern amongst some lecturers that providing the material might allow  
76 some students to think this is a shortcut to the degree.



77 I: S1] did mention that the initial attempts to put stuff on Vula did actually see a marked drop in  
78 lecture attendance. And they actually started taking materials off as they had the proof that this  
79 wasn't helping.

80 S4: So for example there is one lecturer who is trying to adapt the way in which... because students  
81 study in very different ways, she's very pointedly doing is, lectures have very different slides. Some  
82 are put up on the system, but some aren't, so that students can't guarantee that they will be, but  
83 whenever she feels that something's really critical, like an introduction to a theory, that will go up.  
84 But if they really want to understand the depth of it, they have to attend the lecture.

85 I: Do you have a name for that lecturer?

86 S4: [Lecturer H]. She's really amazing.

87 I: For the lecturers you actually worked with, were they sharing their materials on any other  
88 platform other than Vula or OpenUCT?

89 S4: No.

90 I: Obviously a big part of the project was you having to explain this concept of Openness to them.  
91 Did either of them have any prior knowledge?

92 S4: [L4M1] did, yes. Because he'd been in some previous work. [L4M2] was, because he'd seen the  
93 Faculty presentation, he came to me with some awareness. I think he was also more aware of  
94 lectures that were presented or broadcast online.

95 I: Like TED talks, podcasts, etc.

96 S4: And also those broadcast from universities. There's an {international] lecturer in Politics who  
97 looks at law and morals, but he does a massive online lecture series.

98 I: Is it part of the Summer School series?

99 S4: He's not part of UCT, he's from an American university. He's published a lot of books, and gives  
100 these lectures on a very basic level on how humans develop morals and he gets hundreds of  
101 thousands of listeners. In some way its an interesting marketing tool, sharing some introductory  
102 lectures to a topic, and encouraging people to think 'that's something I'd like to study in more  
103 detail.'

104 I: Mm!

105 S4: And I think there's, he used to talk a lot of information asymmetry between what students want  
106 to do in terms of where they'll working and what they'll be studying in university, and what choosing  
107 a subject really means, Because there's a lot of asymmetry between what you study at school and  
108 what you end up studying at university, such as the distinction between Geography at school, and  
109 Geology, environmental science, etc at University. So there was a need about talks about what you  
110 can study at University, to orientate school-leavers on the process and why you might want to study  
111 there.

112 I: One of MIT's goals was to showcase some of their materials and it did succeed' because students  
113 knew 'this is the kind of thing they were going in to.

114 S4: I went to a school that had a particularly high private-school contingent because of where it was  
115 based, and most of them were studying Estate Management and I never even after 4 years had any  
116 idea of what they studied. It might be a particularly British course, but it was something that  
117 attracted private-schooled students, and then they went into banking or managing the family firm.

118 I: So, back to the materials. In terms of audience for the materials, it was obviously for the  
119 [departmental] students, but could be broadened out to any Humanities students who needed  
120 pointers on critical writing or contextualisation, but, what about secondary-school students or  
121 teachers, or both?

122 S4: The idea was to make the language accessible enough that students could use it on their own.  
123 But it would have to be fairly good students, because you do require some explanation. For Prof  
124 [L4M2]'s [S4M2] course, the reason for getting that online was that it was probably the only such  
125 course in the world. So there was a sense that it was the only course of its kind, and gets a lot of  
126 interest, particularly from US students. There was also a sense when because curriculums change,  
127 and if there was ever a time when it wouldn't be taught, it would need to be stored somewhere like  
128 OpenUCT where it could live on.

129 I: So there was also a long-term preservation aspect,

130 S4: Yes. And for that one, it's difficult for that one to understand by itself, although there is sufficient  
131 information in there for people to go and find supplementary readings and think about it  
132 themselves. But there was no thought given to the idea that people might just take those materials  
133 and just read them and skip lectures, because that would not give you sufficient understanding to  
134 really get into it, you need participation and discussion. So that resource was put out there to inspire  
135 debate, not to replace a course.

136 I: Is that an undergraduate or postgraduate course?

137 S4: Undergraduate. There was also some talk that it might become a postgraduate course. So again  
138 it was an idea that we've had the undergraduate course, so let's make sure it's archived and  
139 accessible.

140 I: So onto some of the work involved in adapting materials...

141 S4: Sorry to interrupt but I think it should also be said that L4M2 was very keen that his contact  
142 details were on there, because it was meant to inspire debate and discussion so he wanted to be  
143 available for discussion.

144 I: I remember he asked if there was a forum component. Unfortunately there isn't and probably will  
145 never be for this particular platform. Of course because it is available under open license, people can  
146 take it and put it on other kinds of open forum for debate.

147 S4: Yeah.

148 I: There's a real curatorial aspect to this thing [...]. That's a large art of my current work, looking at  
 149 curation strategies for our big project. So back to the adaptational process: do you have the original  
 150 pre-adapted material in any form?

151 S4: No... because a lot of the adaptation wasn't necessarily done by me, but by the other students  
 152 involved in the creation process, and it was actually... there was an awful lot of very messy  
 153 coordination happening where there was students who had done some courses, who being asked to  
 154 prepare the material, and then they were calling it this and that...

155 I: But for the [S4M2] course?

156 S4: Yes, but for that one, it was a very quick and easy job because the main thing I had to do for that  
 157 was take out the dates, everything was dated, and taking things out like how the essays would be  
 158 graded, how the assignments would be graded, so it was all the functional administration stuff. And  
 159 just then I learnt early on that there wasn't much else that was required, because there was no  
 160 copyright material there. There were referrals to books but they were all properly referenced, so the  
 161 student could just go to a library and find the books. So that one had no images, so it was easy to  
 162 adapt.

163 I: What I did notice is that not all of them but the vast majority fitted onto a single page. Was there  
 164 any particular design thinking behind that?

165 S4: I don't think so, I never really asked, but I was pleased because it made it very to read through  
 166 and check. Because also they are essentially instructions to think, so the course is interesting... this is  
 167 an aside but a lot of students struggle with the course because they come from other instructions  
 168 where your aim at university is to get a first, so your focus is to find the instructions on how to get a  
 169 first. And so often it will be instructions saying you have to understand this, this, this and this, you  
 170 need to learn by rote how to explain these concepts. This though is a course is simply how to think,  
 171 to get someone to think you can't tell them too much, just describe readings and ask them to think.  
 172 There will usually be a brief section on what to read, usually two authors dealing with an SA political  
 173 issues, and then the assignment would ask students to think on the issue.

174 I: Did you make them all one page, or was that the original form of the materials?

175 S4: They were probably all a little longer starting with, so I think I did actually ... I did make them  
 176 neat, and added copyright notices, and I might have tweaked the structure so they'd fit within the  
 177 boundary margins.

178 I: I noticed on some of them that you did... that they fitted the page perfectly. I really appreciated  
 179 that they were all one page, it made them so easy to read, like 'This is the thing', there was no  
 180 chance of missing pages or information. Very few had extra things at the end.

181 S4: Some of them were a little, yeah, added extra material. But I can't pretend we did it because we  
 182 though high-schools might not have the budget to print extra material, it wasn't that.

183 I: But it was somewhat a conscious design choice?

184 S4: It's a habit of mine; if something goes over to a second page, I try and see how I can cut it down.

185 I: Was there any sort of personalisation, or Resequencing, or advice on changing certain parts of it  
186 here, that sort of adaptation work?

187 S4: For the [S4M2] course, if you look at it, you'd probably find it wouldn't fit into a semester.  
188 Because the main series is prepared in such a way that if students are having trouble grasping a  
189 particular idea Prof L4M2 has additional lectures on hand. So the basic course is scheduled for 13  
190 weeks with one lecture and one tutorial a week, but there are supplementary ones, so the total  
191 might be more. So we spent some time talking about what additional materials should be put in and  
192 where they should be put in. So in the end some of the additional material was put in and some of it  
193 wasn't, because it was just reinforcing existing lectures. So yes, there was a bit of Resequencing.

194 I: So the big question: licensing. As you said L4M2 had some introduction to open licensing from our  
195 talk, but it couldn't have been comprehensive given the 30 minutes or so we had to talk. How did  
196 you introduce this concept to him and how did you negotiate it?

197 S4: I think I just approached it from the point of view... I think it was important to ask a few  
198 questions. One, to ask if there was any concern about the commercialisation of the material –  
199 whether the university wanted to make any money off it, or prevent anyone else from making any  
200 money off it. Then ask a question about why you would want this to be shared, and then you can  
201 talk about how some licenses create barriers to sharing, for example it might prevent printing, so If a  
202 lecturers wanted to share to students, that could be a problem.

203 S4: I think because I had worked in IP before and in my previous job I talked about IP with fashion  
204 designers, I talked about it in quite layman's terms which helped. It certainly wasn't a difficult  
205 question. The thing is to ask the salient questions. I think the creative-commons licenses are framed  
206 in such a way that allows us to ask the right sort of questions, and we were trained to understand  
207 them well enough and understand the implications. Because you could actually ignore the fact that  
208 this might prevent someone from printing this.

209 I: As far as I know, all of the [S4M1] was CC-BY licensed, which is what we wanted; or more  
210 accurately it's what I wanted. Was there any difficulty in reaching that point, of the most open  
211 licenses.

212 S4: No. Because all of them were in essence incomplete.

213 I: Partial.

214 S4: Yeah. So the [S4M1] lectures weren't actually giving away anything you don't want to be given  
215 anything away. And with the [S4M2] course, again it was incomplete, because you can take all of  
216 that and try and achieve it, but without participating in the debates you're quite restricted in what  
217 you gain. So it was almost like a teaser, saying 'come to UCT, see how much more you will learn.' To  
218 some extent. The concept of having a [S4M2] course is unique, but all the materials and ideas are  
219 still there, so the idea was more to get people to think.

220 I: Back to the [S4M1] lectures. So in my interview with [S1] I found out that these were  
221 collaboratively developed, by the tutor group, with some input or insight from [Lecturer H]? Or was  
222 it very strongly driven from the tutors?

223 S4: [Lecturer H] wasn't involved in the second year ones. It was more the tutors and L4M1, because  
224 he runs the [redacted] course, which is additional tutorials for students who are struggling to meet  
225 these kinds of skills requirements, such as students who are struggling to articulate themselves in  
226 English, with grammar issues or the like. The [S4M1] department is trying to address the needs of  
227 students beyond the curriculum of [the department]. A lot of that is derived from feedback from the  
228 tutors.

229 I: All the materials were produced in word and PowerPoint. Any particular reason why they were  
230 reproduced in both formats? It's not quite reduplication; there are some slight differences between  
231 the two sets of materials.

232 S4: The idea was the PowerPoint presentation was something that was just delivered, but the Word  
233 documents have more instructions, either on how to run the lecture or something that one could  
234 use in a tutorial. They aren't traditional lectures, they're more interactive, so in smaller groups they  
235 probably work better in tutorials. The word docs were designed to add instruction.

236 I: So it's adding students and instructors, broadening the audience for the materials.

237 S4: Yes, because if you just had the PowerPoint presentation, you might not necessarily understand  
238 what was happening. The idea is that they are materials for either tutors or lecturers, rather than  
239 things students could just use on their own. However students are adaptable and could probably  
240 find some way of using them.

241 I: Exactly. Were there any major concerns from primarily L4M2 about the licensing process?

242 S4: No, no.

243 I: Things with Resequencing, that was easily negotiated...

244 S4: Yes.

245 I: In your position as someone who has had extensive work experience and government experience,  
246 before coming to the Masters programme, did you think that influenced how you were able to talk  
247 to lecturers?

248 S4: Yes, I had a certain age advantage... but I don't know. I think that in the [S4M1] department  
249 students are taken seriously, especially postgraduates, because they have had to demonstrate a  
250 certain intellectual level, a certain ability to engage closely with lecturers, they're not one of 200 in a  
251 lecture theatre. So I don't know whether I had any particular advantage. And I think that people like  
252 [S1], with exceptional interpersonal skills, very adept at negotiating with people, would also succeed.  
253 There were some good hires.

254 I: It's really the postgraduate student, if there was an advantage it was that, rather than other  
255 factors.

256 S4: Yeah... but although I think you could have... there were some undergrads who would have been  
257 equally good. Negotiation with people is something you gain from experience and people gain that  
258 experience in all different ways. At the end of the day, it's down to how people were recruited to the  
259 project.

260 I: Once the materials were completed, did the lecturers want to see the materials on the repository,  
261 did he ask for any feedback or metrics on use?

262 S4: He didn't... but I'm pretty sure I sent him a link. I mean he was very keen to have them up, but  
263 everyone's busy. Lecturers only have these brief periods of respite, which is about a week of  
264 recuperating and then back to preparing. It's actually quite difficult, because you get the materials,  
265 you make the changes, and you request for them to be signed off... if your request coincides with the  
266 arrival of 120 3000 word essays all needing to be marked within a week, that's going to have an  
267 impact on the process. So there was some stalling. Often, the essays would be graded, and then  
268 there was an exam... it's getting the time issues sorted that was difficult to deal with.

269 I: I did actually drop him an email, because within CILT we have the MOOCs team developing I:  
270 three/four MOOCs currently for this year, and I asked him if he wanted to apply for the next round,  
271 but maybe face-to-face would be better than just some anonymous email.

272 S4: Yeah maybe. It's difficult to know when is the best time to contact lecturers. Whenever you think  
273 there might be a break, there might be an applications process... you notice it more with the  
274 administrative staff, because they could get visibly frazzled.

275 I: If you had to do a completely different project, if we had the same prior training (on copyright  
276 clearance and open licenses), but instead of your work as an adapter of raw materials you were  
277 instead ambassadors. Going out, talking to lecturers, telling the about this wonderful thing, but not  
278 offering any support other than helping with the copyright... in other words, not doing any of the  
279 actual work. Do you think any of the lectures would have jumped at the opportunity?

280 S4: I think they would have jumped at the opportunity but they might not have been able to get it  
281 done. Other things would have come up, like exams... the materials I had were quite easy to adapt,  
282 but not necessarily so with other images. For example the [S4M1] lectures originally had a lot more  
283 images in them, and I kind of took the view that I could replace them with copyright-free images but  
284 they didn't really add anything to the materials, so I just removed them.

285 I: I was going to ask – the materials are very image-sparse, there's only one image in the entire set.  
286 You said they won't really adding anything?

287 S4: They weren't' really. I do quite a lot of presentations and I understand the value of adding  
288 images to attract attention, but often they don't add any value other than making it more visually  
289 interesting. And of then images that were used were kind of like... there's a discussion there, and  
290 you put in an image about Maslow's Hierarchy of Needs... I'm not sure why you put that in there, so  
291 I'm going to remove it. I can understand where there's value to things where they're directly  
292 necessary, but these often weren't.

293 I: Was it maybe an issue of having a picture that the lecturer would talk to in the lecture or tutorial,  
294 and then left it in the online material, where it didn't make sense anymore?

295 S4: Yes, so if the images were mentioned in the word document, but they never were. The only time  
296 they were was with the flow chart diagrams, but then those stayed, because they were original  
297 creations. There were images that were just little in-jokes. If you're doing images that are [subject]-  
298 based, you can invariably find a cartoon to start with. So if you're presenting it yourself, you might

299 want to use an image to start the discussion, but if it's online the image often isn't necessary. I  
 300 actually had to do a [Commerce] presentation on Friday and there was an issue with calculating the  
 301 actual stats, so I used a presentation that had a lot of images, and everyone talked about how the  
 302 presentation was good, and how I chose all the good images, and what I wanted to do was to do a  
 303 good presentation that would draw people away from the absence of a lot of stats. For the [S4M2]  
 304 course there were no images because that wasn't the point of the course; the point was to stimulate  
 305 discussion.

306 I: So, this last section is free-reign to complain about the project! Trust me I have some complaints  
 307 about how the project was designed, and frankly my own behaviour in the project – I think I could  
 308 have done a much better job. But this process is to find out what we could have done better in the  
 309 project, or to find out what actually was done well.

310 S4: I don't know... I don't have any particular complaints at all. Because I think it's quite a challenging  
 311 project to implement. There were obviously so students who were just much more engaged, such as  
 312 [S3], he just seemed to do a marvellous job, and so I think... I think there was sufficient engagement.  
 313 We got support when we needed it, we got lots of offers for additional support. We had those extra  
 314 moments like the presentation to Faculty which clearly had a direct impact for me, most of the  
 315 problems I had were internal, in the department, particularly around coordination of the [S4M1]  
 316 lecturers, because I wasn't responsible for instructing the people who were creating them.  
 317 Sometimes I wasn't even aware of who was creating them. I'd just get an email 'with I understand  
 318 you want this' [from a lecturer]. I can't really think of any problems. I hadn't anticipated how much  
 319 pressure I'd have from other areas. That's always going to be a tricky thing when hiring people on a  
 320 part-time basis. I think one of the strengths was the adaptability, so, when it was clear that [S3] was  
 321 really engaged and involved, it was possible to enable him to take up the slack to some extent.

322 I: From our side, we had no complaints about your work.

323 S4: But also in theory you wanted someone who was available, what was it, one day a week?

324 I: Five hours a week.

325 S4: And I don't think I delivered anywhere near that much. But I got the impression that there was  
 326 scope for shifting other people about. And I think that flexibility was important. I imagine that was  
 327 quite a difficult thing to budget for, but the time-sheet process seemed to work fairly well.

328 I: From my side, the fact that we started in April not in January was a complicating factor. And then  
 329 towards the end, we didn't know if we'd have funding for the last four months... it added an  
 330 awkwardness that just made it harder than it needed to be. I suppose you already had the materials  
 331 beforehand so you could still be productive

332 S4: Yeah. I personally had some frustrations about the delays or the extensions but because I wasn't  
 333 dependant on the money, and for some of the students who were trying to make rent that was  
 334 probably an issue. But then the fact that it was able to extend was probably a benefit. You have to  
 335 bear in mind that students would do this because they needed the money, rather than achieving  
 336 some educational change. But other than that, I can't think of anything. The lines of communication  
 337 were good, the critical thing was that there was always support available. If we needed support

338 there was always the option to have somebody step in. Thankfully for me it never got to that point  
339 because both of the lecturers I worked with were already on board.

340 I: Any closing comments?

341 S4: I don't think so, other than it was great fun and I enjoyed it. I think it's a great project and that  
342 there are definitely ways it could be... given sufficient focus and looking at particular materials, I  
343 think it could be a great way of promoting the university. The thing that's always concerned me is  
344 the issue in SA is the same as in UK is the increased commercialisation of university. Which means  
345 there might be a point where these creative Commons licenses meet a lot of resistance. When I was  
346 working at the London College of fashion, IP is a really tricky issue because there are some  
347 universities in the UK, because of their prestige, they allow some lecturers to retain copyrighted  
348 materials, and others that the copyright is as an employee. Also, to raise more income, one of the  
349 big things in the UK is to spin-out – working with students to develop professional ideas and form  
350 partnerships, so IP is created that has a commercial value. The professor wants to make money from  
351 it, the student wants to make money from it, the University wants to make money from it... in the  
352 past these things were created as a public service. Increasingly universities are being asked to  
353 become a public enterprise and so if you come up with something, a procedure that can be  
354 patented, you want to patent it, not because you want to control how it's used but because you  
355 want to make money off it. And that will control how it's used, I think. Not a huge impact; you can't  
356 overthink this.

357 I: If you could suggest maybe about the kinds of materials that would be best, like the 'teaser'  
358 materials... do you think these would be least contentious for CC licenses?

359 S4: Yes, yes. Like I was saying, intro lectures to courses that could inspire students to want to study  
360 something. Or maybe give High School teachers opportunities to inspire their students and give  
361 them clues on how to further their education. I don't know... I don't want to take OpenUCT away  
362 from what it wants to be, because it otherwise you become a marketing vehicle for the university,  
363 and then maybe the finance office should get involved in student budgeting. It's kind of fascinating  
364 when you start tutoring and engaging with students and finding out what it is that actually impairs  
365 academic success. It seems to me the key thing is the lack of funding, or students running out of  
366 money and not being able to pay for their courses. I've met students in dire financial circumstances.  
367 And students who ... I invigilated a make-up test, and a student asked if they could miss it and I told  
368 them it was their last chance, and they told me there was a bus strike and that they'd probably miss  
369 it and if there was anything that I could do. And he hitched all the way from Langa to get to the  
370 make-up test. That was a financial decision. To budget effectively students will buy a monthly pass  
371 on a particular bus service, and if that service isn't running then there isn't spare cash.

372 S4: I'll tell you one thing I thought was interesting. UCT is now issuing a monthly research update.  
373 You get an email telling you what is being researched. What would be interesting is approaching the  
374 people producing this research and asking if there's anything in this that we could share in OpenUCT.  
375 I'll forward it to you if I find it. I just think it's interesting because they will post things on how UCT is  
376 talking Ebola, or other research concerns. So there might be scope for some of that material to be  
377 made open.



## 1 Transcript – S5

2 I: The purpose of this interview is to do a retrospective on the VC's project, just to check what  
3 worked and what didn't work, and to get some lessons learned for if ever we get the funding, and  
4 the time and patience, to do this process again. So, we'll be coving the process of solicitation, what  
5 you did to actually go and get content.

6 S5: Mm-hm.

7 I: And the success, difficulties, so-forth of that, some kinds of characteristics of the successful  
8 solicitation attempts, what worked and what didn't work; the actual changes you made to the  
9 materials, if any. Lastly we'll finish off talking about the project design; what did work about the  
10 project design, what didn't, and if you were in charge, how would you change it. I mean, bits of  
11 these things we've covered in previous training sessions and so forth, but I am just asking for the  
12 record.

13 S5: So, initially when I started trying to solicit materials I sent emails ... so the first thing I did was  
14 send emails to see if anyone was overtly interested, so then anyone replying quickly or even if they  
15 couldn't, then directing me to someone who could, so I was just hoping to send out electronic  
16 requests in that sense and then just from there I would gauge and then go across. The problem with  
17 that was, I don't maybe that's just a thing with lecturers, they are flooded with emails from students  
18 and so forth. It was very difficult to get any replies, I mean, delayed or otherwise. It was really quite  
19 hectic to get replies.

20 S5: At which point, then, I sort of tried just approaching them directly. There were two people who  
21 replied quickly to my emails, actually the only ones who replied to my emails, reacted quickly and  
22 positively at the same time. The one was L5M1, who historically has been involved in contributing  
23 materials, so it was a sort of happy coincidence that she was still interested.

24 S5: The other lecturer, I forget her name right now because she's not here anymore. She was a game  
25 theory lecturer and she was also quite helpful but she was sort of in-between situations.

26 S5: So I realised there were three sorts of lecturer: those who were not interested at all, those who  
27 were interested but for reason X or Y they did not have the time so they could not help us. Maybe  
28 the material is very proprietary to the department or maybe they don't have that level of  
29 authorisation, so they do have that positive intent to help.

30 I: Yeah.

31 S5: But they are not able to execute for whatever reason. I think her issue was that she was going on  
32 sabbatical or she was only temporarily on the course for one semester so she couldn't like leave  
33 behind a legacy of passing things on when she wasn't going to be there herself.

34 S5: And then the third category was people who were interested and also able to help, like L5M1.

35 Interesting, interesting. Were there any people that so when you went to the face-to-face contact  
36 approaches, let's go for broad categorisations here, who did you feel most comfortable approaching,  
37 and who did you feel least comfortable with? Who did you 'target'?

38 S5: Initially in retrospect I think it would have made more sense to... instead of target people who  
 39 could actually implement anything like an associate professor or senior lecturer or someone who  
 40 wouldn't have to ask 5 or 6 other people before being able to help. The thing is I didn't end up  
 41 sticking to my own faculty. I did go and speak to a couple of people in [the Faculty of Science], and 3  
 42 or 4 people in [the Faculty of Engineering], just because I wasn't really able to get much of a  
 43 response in my own faculty. I asked the other guys if it was fine and they said it was okay, so I moved  
 44 around a bit. I felt there was mobility in that case. And maybe just I think it's more just a question of  
 45 punting it in general, to, like, broadly, I feel like the broader the awareness is then, because not  
 46 everyone is going to have the impetus like internally to be interested in something like this. Even in  
 47 terms of the people who I did find most comfortable, I just went, really, at some point when I wasn't  
 48 getting emails I just basically went to anyone. Most of the time, I initially just went to the people  
 49 who responded to my emails. So there were some from Engineering, there was one guy from  
 50 Science as well. So they were helpful in the sense that at least I did find people who were quite  
 51 interested to hear me out. There was an okay-ish amount of people who had the sentiment that  
 52 they were willing to hear me out at least.

53 S5: Like at that point I was like whoever's going to hear me out, I'll go to them. I feel equally  
 54 comfortable going to them. There was only one person, she was more in my age group, I think she  
 55 was in her 20's, so I felt very comfortable talking to her. She was lecturing me for a semester or two.  
 56 I think that was because age-wise we were more matched whereas the others there was at least 15-  
 57 20 years of age gap.

58 I: Yes, yes, definitely. Cool! Um... and this is really just rough, don't need specific number, but: vague  
 59 success rate? In terms of how many people responded to the emails, versus how many were sent  
 60 out?

61 S5: Okay that would definitely be less than 25%, like, between 10% and 20%.

62 I: That's fine.

63 S5: 20, I would say 20% of the time.

64 I: And of those, um, who actually provided materials in the end for adaptation.

65 S5: As a proportion of those I emailed?

66 I: As a proportion of those you ended up talking to face-to-face.

67 S5: That was about, like, half of them.

68 I: That's pretty good, that's actually better than most!

69 S5: Well that was half of the people who replied.

70 I: Yes, yes. I find that even often those who replied don't... fantastic, okay. Um... You moved outside  
 71 your faculty because you didn't have the response rate you were hoping for. Um, but generally  
 72 speaking would you say it was easier to approach commerce lecturers, or would you say that there  
 73 wasn't a difference...?

74 S5: I think it was, yeah, I found it was... okay yeah maybe I think more in the science and engineering  
 75 they took more easily to the idea maybe because they were in a more technical field to begin with,  
 76 so the idea of bringing something technological was more appealing to them, maybe? But I think  
 77 that in terms of approachability I found them all equally approachable because most of the people  
 78 who sent me replies were quite keen, it wasn't like "I only have five minutes so buzz off after that"  
 79 so yeah.

80 I: They were more engaged.

81 S5: Yeah they engaged with me yeah.

82 I: Fantastic. Um, part of the way the project that was set up was that we looked for postgraduate  
 83 students, because we assumed that postgraduates would just be a little more familiar with how the  
 84 institution works, also would have actually talked with some of the lecturers in their faculty, have  
 85 gone to tutorial groups, etc. Do you think your experience would have been a lot different if you had  
 86 been an undergraduate, or even a PhD student or postdoc?

87 S5: I think it would definitely have been, um, okay it would probably have been more easy if I had  
 88 been a like a doctoral student just because I think that, because obviously my emails sort of had like  
 89 my title, Masters candidate and stuff... maybe that gets taken more seriously, so if it had been PhD  
 90 candidate, that would have been taken more seriously, so I feel that definitely more people would  
 91 have replied. In terms of if I was an undergraduate student, I think it would lecturers would be more  
 92 accessible in the sense that I could build a rapport with them in lecturers and then meet them after  
 93 hours...

94 I: Yeah, yeah.

95 S5: Like, it's easier in that sense. So I could even like target some lecturers and be of the mind to  
 96 speak to them over a couple of weeks and then we're familiar and spend time with them in  
 97 consultations and after about 2-3 weeks of conversation and back and forth I could also just  
 98 introduce that yeah I'm sort of involved in this. And that also makes sense because after you've  
 99 spoken to them for a while you can see if they're interested in something like this just based on their  
 100 temperament and predisposition.

101 I: Yeah. It would be quite a long process, though; you'd have to keep talking to them.

102 S5: Over a 2-3 week period but I guess even if you just speak to them once or twice a week and then  
 103 meet with them. But I think it's also about establishing trust and maybe they sort of believe that  
 104 you're more of a really keen student, and then maybe you can translate that keenness to show them  
 105 why it would be easier to disseminate information to other keen students who aren't able to come  
 106 here, sort of a situation.

107 I: That's actually very interesting, I never thought of it that way. Thank you, that's a very interesting  
 108 insight. I always kind of assume that lecturers would be "oh, an undergrad. Come back to me when  
 109 you're a postgrad." But that's very interesting.

110 S5: Because I remember I didn't use to go so many times for consultation when I was in my  
 111 undergrad degree, but the few times I did it was very random, I didn't choose lecturers based on

112 how easy they were to talk to, but I would say the majority of times, more than half the time or at  
113 least 60% of them were very warm and approachable. And especially if it was not some very basic  
114 question that you could just read the first few lines of the textbook and get the idea. The more  
115 deeply you engaged with the question, the more interested they were in helping you out.

116 I: Yes, yes.

117 S5: So yeah, I think so.

118 I: Um, so in terms of the actual successful solicitations, times you actually got some materials to  
119 work on, did you have any sense and if you didn't that's absolutely fine, whether those lecturers  
120 were heavy users of Vula?

121 S5: Mm, I actually couldn't tell. Also I may not have been able to pick up on it much because I just  
122 assumed that any and all lecturers, even if it's the sake of just posting an announcement would use  
123 Vula, so I can't really gauge that, because I just took it for granted that they would use Vula.

124 I: Sure, sure, that's absolutely fine. I'm right next door to the Vula team and I have no idea how  
125 many lecturers don't use Vula. I assume very few don't these days, but you do find these people who  
126 say "I don't use it." How can you not use Vula? <laughs>

127 S5: Like everything in, like at least once a semester even if it's just for an exam or test  
128 announcement, they would use Vula. I don't think it's possible in this day and age to have a  
129 completely paper-based system, trying to have print funding for everything, yeah.

130 I: Makes me wonder how they did it before the internet, like, how did the university run?

131 S5: Yeah.

132 I: Um, of these once again successful, contributing cohort, in your conversations with them,  
133 mentioning openness or so forth, were any of them sharing materials by any other sort of platform,  
134 not necessarily open platform, but like maybe they'd say "oh yeah I share things via Academia.edu"  
135 or...

136 S5: Yeah okay as far as I can recall I didn't really know of any of them putting it on any other source  
137 or any other source.

138 S5: The only one maybe being L5M1 but she has been putting on for a while. But as far as I know no-  
139 one else.

140 I: So openness was quite a new thing for them.

141 S5: Yeah.

142 I: Not necessarily the publishing aspect, but the openness part of it, as a concept.

143 S5: And also I, one feeling I had was that there is a lot of slight confusion between, like, openness  
144 equates to exposed-ness for some people. You know, I understand, say if maybe I was a lecturer and  
145 I prepared my own material and now I make it open it exposes it to criticism from others. I do feel  
146 that academia to some extent, I don't know about South Africa but in some circles it's very

147 competitive. If they're in the same field, could be like "oh yeah I saw your slides, they seem very  
148 juvenile" or whatever. Just for example.

149 S5: I feel like they would be more likely to put it on an open platform if it was their original work,  
150 that they wouldn't really have too many copyright issues, but then the more it's linked to their  
151 identity as competent in what they're doing. So I think it does tie in with that fact.

152 I: Interesting. So, I'm kind of jumping ahead at this point, but let's get on to some of the concerns  
153 and worries about openness, and one of them is that concern over vulnerability.

154 S5: Yeah. I think that's, more subtle, that's what I would think about. But personally even when I've  
155 had to prepare things for tutorials or whatever something which would be fine with me if I were the  
156 student I wouldn't really be comfortable with presenting. This is maybe off on a bit of a tangent, but  
157 you know when you have many laws in conflict you always go with the strictest one?

158 I: Yes. <laughing>

159 S5: So similarly when preparing materials I would prepare them with having the most critical person  
160 in mind.

161 I: Yes absolutely, which obviously then takes a whole lot of time and effort to refine them.

162 S5: Yeah.

163 I: This leads on somewhat to the next question, but... I'm a lecturer. I want to engage someone with  
164 my materials. Especially if I'm going to make them open. Who do you think they want to have that  
165 engagement with? Obviously with their students and their class, but other kinds of audience? Or  
166 which other kinds of audience are important, which are more important, which are less important,  
167 which are not important at all?

168 S5: Audience in terms of people soliciting, you mean, who would they want to engage in terms of  
169 the adaptation team?

170 I: No, um, if I'm contributing my materials, who am I trying to reach by contributing them? My own  
171 students, students at other institutions, other academics, or other kinds of people generally? Who  
172 do you think they are really trying to reach?

173 S5: Uh, from my perspective it would probably be those students, I wouldn't say enthusiasts, but  
174 students, and those who face restricted access to such materials, so students who are really keen  
175 but for whatever reason aren't really able to access that materials, like being physically present. So  
176 I'd think the most important audience would be students who are not personally there, but mainly  
177 probably just in distance learning.

178 I: Why do you say 'students who are not physically here?'

179 S5: Uh, well I just think they would probably take it for granted that there are already teaching those  
180 students through their formal process of lecturing, and through Vula or whatever, so it would kind of  
181 seem, if they are thinking of making it open to reach that same audience I don't know I think it  
182 would seem like catering twice to the same audience.

183 I: That's what I think as think as well, I just didn't want to pre-empt you, as that's what I feel as think  
184 as well, especially as Vula is so advanced as a content-distribution platform. Fantastic. Now, as for  
185 the actual adaptation process, you got materials, now you've got to make changes to them. What  
186 did you actually do? Like, what were the main changes made?

187 S5: The main changes were a lot of the material it was easy to trace references, and it was quite  
188 well-adapted already in terms of the copyright perspective, so a lot of what I was doing was media-  
189 based in terms of images, charts, pictures, those are basically what I was doing, going off and  
190 searching for [open versions]. And it was usually quit easy to trace the actual origins there, like, if it  
191 was creative commons and such. So the majority of the work was basically sorting out the media  
192 stuff.

193 I: Okay.

194 S5: Quite a bit of it didn't actually need changes anyway; so there was a few in terms of wording  
195 changes, but I don't think there was much of that stuff. It was mainly images, chart, graphs and so  
196 forth.

197 I: And you wouldn't really feel comfortable in making any major changes, say, this side is just  
198 repeating things from the previous slide, let's cut it out, or...

199 S5: I wouldn't be really so comfortable in doing that. It depends on the subject matter. If the topic  
200 was very complicated or which wasn't very, very basic, then I wouldn't feel comfortable doing that.  
201 But if it was a very basic statement, then... sometimes the slide is just repeated, by mistake...

202 I: <laughing> Yes, definitely, that happens surprisingly often!

203 S5: Yeah like one of those guys in terms of attention to detail. So if I found things like typos of  
204 grammatical errors I would definitely fix that. So yeah.

205 I: Cool. Do you ever take materials and sort of, need to go back to the lecturer and ask 'is this  
206 complete? Maybe there's something missing here" or suggest a reshuffle of the content maybe. Not  
207 change anything, but reorganise it perhaps?

208 S5: I didn't have any instances like that. I didn't feel that anything major had to be done. Usually  
209 everything was quite concise and succinct, so, I never really felt that urge. It's not like I was avoiding  
210 it, or trying to pitch that extra work back and forth, but I never strongly felt that feeling.

211 I: So, with L5M1, she already knew about licenses and so forth. So I assume you didn't need to talk  
212 about that process at all. But I assume you did bring it up with her at some point.

213 S5: Yeah with her it was like, it was very leaf-through, she didn't really she just told me as long as the  
214 core was similar... it was mainly like she was very free to accept any changes needed to make it  
215 available. But then it was sort of like she had already that mindfulness so she did a lot of those things  
216 already, in the sense that there were always links below pictures and stuff, so it's not like I had to go  
217 and search through 100 pictures of an object, she always had links there and stuff so it was very easy  
218 to trace. Also a lot, I think maybe a third of the stuff was already creative commons, so I didn't really  
219 have to haggle that much about how I wanted... she was very free about the kind of changes I  
220 needed to make.

221 I: Cool. Did she ever ask to see the final thing?

222 S5: No, she didn't. I did ask her, should I keep bringing it back to check the changes, and no she  
223 wasn't really, she never really mentioned that she would like to see the final product. Mainly I think  
224 because she was confident that the changes wouldn't really be a large shift in the material, it was  
225 just kind of making it suitable for wide distribution I guess.

226 I: Yeah, copyright clearance, not reworking. And she never asked to see it in the repository, or usage  
227 stats or anything like that – views, downloads...

228 S5: No, I'm just trying to remember... I think that there was some mention that it would be nice to  
229 see it... actually no there wasn't, it's just my... I'm just wondering, I'm just trying to recall if I  
230 suggested... I'm 100% sure that she never asked for any stats, I think I might have suggested it at  
231 some point.

232 I: M-hm.

233 S5: Or that was actually something I used to – now I remember clearly – that was something I used  
234 to pitch to lecturers when I met them a few times, that I can even give them the usage information.  
235 Trying to show them that it's a very professional set up and they can see where it's going and how  
236 it's being used. That was my pitch at some point, that you can do X Y Z things with it as well.

237 I: And was there any interest in that, or was that not so important?

238 S5: Yeah no they didn't really seem to be very overly enthused about it; initially it was like "oh yeah  
239 you can do this with that" but then there wasn't really any follow-up after that. I guess maybe it's not  
240 because it's not a scholarly paper that they need to get recognition for.

241 I: <laughing> Promotions and stuff, yeah. Okay, interesting. Pretty sure you have actually answered  
242 this question already, but: Did you have to negotiate any controversial changes, changes you may  
243 have felt were important or quite a big change, I'm guessing not, but say, you made a change to a  
244 slide and needed to clear it with the lecturer?

245 S5: No not really, there was never anything really drastic. For the most part it was just making it  
246 more streamlined for our process.

247 I: Fantastic. Last thing is on the project design itself. Talking about the project itself; it is now well  
248 and truly done, it is finished, and personally I think some of it was quite well designed, some of it not  
249 so much, especially in terms of the support which I gave, which was not particularly great. Let's talk  
250 about the project. Which aspects weren't so great, such as, the way we set out the training... and say  
251 what you want, this is a free space here.

252 S5: Um, okay I'm just I'll just start with the things that went well, so I can have some time to think of  
253 the other things that didn't. Okay, so the legal, sort of with the copyright trainer, that part was really  
254 good. I felt really well informed and clued up. Even the hand-outs you guys gave whatever printouts  
255 and booklets, they were all very informative and they gave me at least the feeling I was adequately  
256 prepared, at least in terms of knowing what I had to do. I think... even the workshops we had with  
257 the library, I thought that was good, and the open day we had was also good. So I think the events  
258 were quite useful.

259 S5: The one thing we need to do which needs to be more consistent, like having more of an  
 260 awareness, was... with students, you know, they need something to really seem big and exciting for  
 261 them to get involved. And maybe I'm... for UCT students who are already here I feel in terms of Open  
 262 Content and stuff I don't really see... it's more like creating the environment of that sort of culture,  
 263 maybe. I don't really see how they personally would benefit so much from having UCT open content,  
 264 in the sense that a lot of the course you can take as electives. Maybe they would benefit in the sense  
 265 that they don't want to take a whole course, they just want to have wider information pockets in  
 266 terms of what they're learning.

267 S5: In general, I don't feel there was anything particularly flawed, like, 'these people are really not  
 268 helping me out, and I've just been like a fish dumped into the depth of the ocean'; I mean the  
 269 support was pretty decent, I just feel like maybe we could have met more consistently, I think that  
 270 was the one thing. We'd have these situations where we'd meet only once a term, or we'd have 2/3  
 271 meetings and then like there's be ¾ months of silence. So if we had something that was more  
 272 structured, meeting every 2/3 weeks... more stringent report-back procedures and make sure that  
 273 the pace, that the foot is on the pedal the whole time. Because I know when we'd have those big  
 274 gaps when we didn't meet for a while, for the first moth I'd really be out there and then maybe the  
 275 second month I'd be getting wrapped up in my own life and duties and stuff. I think it really needs to  
 276 feel more like a hectic job and stuff.

277 I: Yeah.

278 S5: And I think that does put pressure, a good sort of pressure on individuals. It wouldn't make you  
 279 scared, like 'ah I don't know anything', but it at least it keeps you motivated in that you have  
 280 accountability and you need to follow a set plan. I think people didn't know it would take as long to  
 281 get stuff, and that you'd have to go to lots of people before you got stuff, but I guess that's why you  
 282 had to hire a team.

283 I: <laughing> Yeah!

284 S5: That was my only... I don't think that's even a real criticism, I think we met a decent number of  
 285 times. But a lot of it was excellent training at the beginning, getting the concepts and stuff, but then  
 286 we only had a few meetings. So I think if we made sure it was a fortnightly meeting, it didn't have to  
 287 be long just an hour or so, but just to keep the point that we had to meet every couple of weeks and  
 288 you know, give like individual progress. I think it just needs to be more formalised; like, we did  
 289 everything, but when we leave it too much to leave to do with everyone, it make the whole process  
 290 much slower. I wouldn't say less productive, but just slower than it could be, then if we had that  
 291 feeling that it was a job that you'd have to report back on every two weeks.

292 I: Thanks, I think that's everything. I really appreciate you coming out.



1 Transcript – L1M1

2 I: Do you consent for this interview to be recorded?

3 L1M1: Yes absolutely.

4 L1M1: So I worked on several projects that then were available as open content, and they were all  
5 educational resources. Some of them were Teaching with Technology grants, some of them were  
6 OER grants. I'm not sure which were which, really. I'm guessing you want me to talk about them all?

7 I: All of it; we'll be speaking specifically about the [S1M1] materials, but the other information is all  
8 relevant and useful and background. The [S1M1] materials are the specific works that S1 and S4  
9 worked on.

10 L1M1: Okay. So I mean I did [related] lecturers separately from [S1] and [S4], mostly at the third year  
11 level, but I helped create the rubric further down. So that was my engagement in [Department A].

12 I: Were you engaged in the [redacted] materials?

13 L1M1: Yeah, the [redacted] materials I was really involved in developing those at the beginning of  
14 the course, when I came on as a coordinator when one of the lecturers found some money. That  
15 wasn't from the OER Adaptation project fund at this stage, but it would have been from CHED  
16 money. And we developed materials and such and then other people came in and took over the  
17 course... [L4M1] was there for the longest stretch, and I... all of this work was my volunteer work,  
18 stuff I did on the side, so I would help out here and there with some of the development work.

19 I: Fantastic, fantastic. So, just in terms of before you began, before [redacted] even, so 2011/2012...

20 L1M1: We started [redacted] in 2010. Wouldn't have been formally in the Faculty, we were  
21 operating everything informally in an ad-hoc fashion, scraping money together wherever we could.

22 I: And was that your first introduction to the idea of open content or the idea of OER, sharing  
23 materials, or had you had some sense of it before?

24 L1M1: I think it even came later, because the [reacted] materials in the beginning, it wasn't part of  
25 an open content project at that stage and we didn't make it open content. We didn't have a specific  
26 issues either way, it was just when [L4M1] applied for one of the grants at one stage, we or he really  
27 reworked the materials with the team, and then it became available as open content.

28 L1M1: I think the first experience I had with open content was one of these Teaching with  
29 Technology grants. Either around developing Writing Centre materials or the [S1M1] materials,  
30 depending on whatever the chronology of that was.

31 I: Sure. Were you engaged with any other sort of sharing, not necessarily through that platform,  
32 could have been through Vula for example, the sharing of educational materials. Not scholarship,  
33 not journal articles or books

34 L1M1: Yeah sure, around developing anything around education development, got into that stuff  
35 quite quickly and had to learn it quite quickly because we didn't have educational backgrounds.

36 I: In developing the first round of [redacted] materials, did you go looking for other externally-  
 37 produced examples of materials that had been shared, it was it more of an internally-produced  
 38 thing?

39 L1M1: I think it was a little bit of both. We obviously looked very broadly, trying to find good  
 40 materials and people who had used innovative ways of presenting this material, which is otherwise  
 41 quite dry and boring: how to write a good paragraph, what a sentence should look like, it's quite dull  
 42 But we also developed the material quite independently as well; for instance, we wanted the  
 43 materials to use [disciplinary] texts, which would possibly would have been from their own  
 44 curriculum, and that was again a strategy to make it more interesting and more relevant. So there  
 45 was definitely a bit of both.

46 I: From within the department, was there as sense that either from within the department, or from a  
 47 Head of Department level, or from the lecturers, or even from the students, that you were  
 48 encouraged to share as a cultural norm?

49 L1M1: So the whole of the work around educational development was very driven by a small group  
 50 of people, mainly postgraduate students, who were the key people to get on board anyway because  
 51 they were the tutors. And they really led and worked on it. And I was sort of a hybrid, because I was  
 52 a contract lecturer while also being a student, and [L4M1] was also the same, but we didn't quite fit  
 53 into the staff category, we were the middle children.

54 L1M1: And the department as a whole did not encourage any of this work. Well, no, that's not  
 55 entirely true. They encouraged it, but it was like "yes, yes, go off and do that, that's very nice" kind  
 56 of thing, rather than getting involved. More broadly there wasn't an ethos within the department of  
 57 sharing materials. Or thinking together about teaching and learning in different ways. So it wasn't a  
 58 problem with open content, it was a problem within the department.

59 L1M1: But among the postgrads, materials were shared, teaching practices were shared, what  
 60 worked and what hadn't worked, the specifics around groups and tutorials and how to work around  
 61 that, that was continually discussed, visited and shared, both through content and discussions.

62 I: Would you say the department was enabling but not supportive? There wasn't direct pushback,  
 63 necessarily, but there also wasn't a "here's some cash, go and do it" or "here's the time."

64 L1M1: No, no...

65 I: There wasn't support from lecturers.

66 L1M1: I mean [L4M1] and I got very good at scraping bits of money together, here and there, and we  
 67 just did all that we could. I ran an NRF internship project for three years, so those interns were my  
 68 kind of academic development people. They were paid... all of these grants, that was the way they  
 69 were paid, to do the work, and then just sometimes just exploiting postgraduates good will, and my  
 70 own, because I didn't get paid for any of this. So, or very little, here and there, but the internship, I  
 71 just ran it. We had to find the resources but there was no pushback when we did.

72 I: So you and [L4M1] oversaw this operation, there wasn't an extra lecturer attached?

73 L1M1: No and if you're talking specifically about the [S1M1] materials then we were for a time  
 74 invited to staff meetings and so we would discuss these things, but again it was very much "yes, yes,  
 75 go off and do that, that's very nice". So it was never...

76 I: So it was never embodied in the fabric of the department, it was always a sideshow?

77 L1M1: Yeah I think so.

78 I: When developing the [S1M1] materials, who really was the prime audience with whom you  
 79 wanted to connect? Who were you targeting?

80 L1M1: So it depended on the materials, what we were developing. It was always the students. In  
 81 developing the [redacted] materials, our target was second-language students, um when looking at  
 82 [redacted], we were looking at those who had not had maybe high levels of formal education, or  
 83 different linguistic backgrounds or backgrounds in general. When it came to the [S1M1] lectures, we  
 84 had to carry a whole class, with very different formal backgrounds, education backgrounds, degree  
 85 backgrounds, and all of this, it was obviously all students but it was a different target each time.

86 L1M1: I mean the good thing about the [S1M1] lectures is that the [redacted] materials sort of  
 87 cordons-off these individuals, although we tried to prevent that by including a voluntary component.  
 88 I don't know if L4M1 told you about this. In fact it was a very important part – [L4M1] and I wrote a  
 89 paper on this that was published in the [redacted] journal that argues about our approach.

90 L1M1: With all of these materials we always had a voluntary project, we also had a programme  
 91 where it wasn't just extended degrees students. So we tried to make sure it was inclusive, but the  
 92 students were cordoned off in a separate class. The advantage of the [S1M1] lecturers, while the  
 93 problem was this breadth that you had to cover which could make it very challenging during the  
 94 lecture, as some were too slow and some too fast, some just pitched completely wrong for some  
 95 students, the benefit of it was that education development was a part of something they needed to  
 96 do. It wasn't just for second language students or disadvantaged students, it was everyone. And  
 97 everyone had challenges in their education, and everyone had to develop new skills for the course.

98 I: And was there a sense that these materials would be useful outside of your particular disciplinary  
 99 setting?

100 L1M1: Yeah that was... apart from the funding, which I had to say was the biggest... we could only do  
 101 it with the funding, and the funding said we had to produce open content but of course this sort of  
 102 work could definitely be put outside of the discipline. I think the work also shows that you need to  
 103 target it to the relevant materials, whatever is relevant to that course. So the content that you add  
 104 in [as examples] would need to change. So even for the Writing Club we used [disciplinary] texts to  
 105 do their exercises. So the exercise could be the same, but the referent text would have to change. So  
 106 the [S1M1] text I worked on at the third-year-level, they had to do a mini-thesis. So if another course  
 107 used those materials the thesis would have to change, but the skills would still be useful.

108 I: Of course. Were these materials ever taken up... actually, do you know of the legacy of these  
 109 materials, whether or not they are being used by the department or being taught?

110 L1M1: "I don't know" is the honest answer. The Writing Hub have been largely gotten rid of, I know  
 111 the Mentorship programme has been cancelled, my guess is that the [redacted] course is probably  
 112 continuing, but the resources around that are probably limiting, but the [S1M1] lectures are still  
 113 running four lectures a week, but I'm not sure of the extent to which the materials that we  
 114 developed are being used. I know the ones I developed very specifically for a course are still being  
 115 used because I know the course convenor. But the general ones that were developed, I honestly  
 116 don't know. I guess that at the first year level the tutors do still go out and do a lecture on a  
 117 Wednesday or something. Yeah the other materials have been lost.

118 I: And you've never visited the materials on the repository to see the usage statistics?

119 L1M1: I have revisited them, I've reused some of the materials if I get staff members who have some  
 120 second-language issues then I'll give them the Writing Centre stuff, and I've refereed other people to  
 121 the materials. I've had someone I know start this year as a lecturer in [Department A] so I've shared  
 122 some materials with her.

123 I: Going to the work that [S1] and [S4] did specifically, [L4M1] mentioned that you had sessions with  
 124 them when you explained the purpose of the materials, their structure, and then the students did  
 125 some work on the materials further to do the 'opening' component, not the pedagogical component  
 126 but the things that were need to make the materials into open content. Did you engage with the  
 127 students around that specific adaptation process?

128 L1M1: With students?

129 I: [S1] and [S4].

130 L1M1: In that process [L4M1] really ran that process with [S1] and [S4] so I can only really speak to  
 131 the third-year materials I did with the tutor group. So I had a whole ream of postgrads doing it, who  
 132 had been the tutors, and they had run the lecturers, pedagogically it made sense that they ran the  
 133 lectures and not me because it needed to be qualitatively different, it needed to have a different  
 134 environment and I wasn't an appropriate person in the room.

135 L1M1: So they'd run it and spent a long time developing materials, and getting the project [funding]  
 136 was almost like a reward at the end, So of course we went through that, I went on the course on  
 137 copyrighting, making sure that all the materials on the course were open content, and of course  
 138 went through the slides and everything and made sure that everything was open content.

139 I: Were there any concerns at any point that taking this material, moving it from a relatively  
 140 controlled, discreet group, the students in [Department A], and putting it as open content, that they  
 141 would come under negative criticisms?

142 L1M1: No, not really. To be honest I probably thought "I'd be surprised if anyone ever looks at  
 143 them". So I never thought about being scrutinised, because it was there and it was a very useful  
 144 exercise for us putting it all together and it was actually good that we had to put up the materials  
 145 because it meant that we had to get the slides done, there were no half-done materials and lectures,  
 146 they were all completed, so it was just a useful exercise.

147 I: Hey, that's good too! Fantastic, thank you. So if I recall correctly in 2013 [S1] was in Honours and  
 148 [S4] was in the first year of his Masters. Was their level of educational attainment, the fact that they  
 149 were both postgraduate students, was their role specifically as postgraduate students required for  
 150 you to have confidence that they would take the materials and work with them properly? Would you  
 151 have been comfortable with say first or second year students?

152 L1M1: Absolutely not. So I would say that not only would they have to have been postgraduate  
 153 students, they also had to be tutors, and tutors with some level of experience. Again speaking more  
 154 about my team, but this would apply to [S1] and [S4].

155 L1M1: And so they had to be a great tutor and very engaged in student learning, so I think that was  
 156 the key element. All of the teams I had involved in any of these project were very active and good  
 157 tutors, with some postgraduate experience, but whether they were Honours or Masters wasn't  
 158 important.

159 L1M1: Masters was probably preferably not because of educational attainment but because they  
 160 had more breathing mistake, I felt I could actually give them the work, whereas Honours year is just  
 161 very intense.

162 L1M1: So they had to be very committed and interested in student learning, and I think that was the  
 163 only way we could develop the material because it wasn't, they had to be interested in education to  
 164 some degree because it was developing educational materials and using their disciplinary  
 165 background. You know with the Writing Hub materials, they had to have the content, so they had to  
 166 have the [disciplinary] background, but they also had to go on various training conducted by the  
 167 Writing Centre, and they had to be interested to do that because it's a very specific skillset. So those  
 168 are the individuals that we always used.

169 I: How necessary was the role of having these students, in terms of your personal capacity? That if  
 170 you had the grant, but for whatever reason you had to do all the work yourself. Would that have  
 171 been something you would have been able to do, given your other commitments.

172 L1M1: No.

173 I: The students really were necessary?

174 L1M1: Yeah. With it all, I was very happy to out my time into it as much as I could, but it wasn't my  
 175 job. My job was very demanding as a lecturer. And I couldn't have done that.

176 L1M1: And also because the tutors had been the ones giving the lectures, although I helped out a lot  
 177 with it, I'm not sure I could have developed the material as well as they could have done. They were  
 178 actually better-placed better under my supervision to do it than I was, it wasn't as if I'd just had the  
 179 time I could have done it, no problem, they were a very necessary component.

180 I: You said you went on the course on intellectual property Do you feel that after having done this  
 181 you have a better sense of copyright, what the different creative commons licenses mean, the  
 182 applications of them?

183 L1M1: Yeah absolutely. That was a very, very useful course, or session, to go on. It gave a lot of good  
 184 information, it just gave information in the sense of 'these are some good websites to learn about

185 Creative Commons, or to find graphics', or whatever. It gave me a good sense of it. I'm pretty sure I  
 186 couldn't teach or do any of it, I'd need to go on another course for that. Yeah I have a much better  
 187 sense and now tend to search Creative Commons licences for myself, and tend to make my own  
 188 work Creative Commons as well.

189 I: I have to say I'm not always the best at doing that myself!

190 L1M1: It's not easy. I mean with journal publications you have to pay for the licence and the Library  
 191 has to have the funds to accept your application to do that. I mean the last one I did it was with an  
 192 international journal, and they, what they were going to charge because it was I dollars and the Rand  
 193 has been depreciating dramatically, it was going to be a huge amount. And the Library basically said  
 194 that "this is the maximum amount we're prepared to pay" and it was about R20000 and then the  
 195 journal took pity on us and accepted it. But it was going to be triple that. And if they hadn't agreed  
 196 to that, we would have just had to not publish.

197 I: [redacted section]

198 I: Do you feel that sharing materials, specifically teaching and learning materials as opposed to  
 199 scholarship, will, has or could have a positive effect on your career development? Is it something you  
 200 could say to selection committees or promotion boards?

201 L1M1: I'm not sure is the honest answer! I think the work I've done around educational  
 202 development in general is something that if I was going for an academic post in a university is  
 203 something I'd mention and bring up. And I think the fact that I was able to go and get grants here  
 204 and there and run these mini-projects is something you would potentially mention. You raise a good  
 205 point, there is an emphasis on open scholarship in the broad sense, so maybe it would help. It's not  
 206 something that was done for that purpose, and it's not something I've really thought about in terms  
 207 of it helping me in anyway way. For this whole work, I'm not sure how it would help me personally.  
 208 Which I'm completely fine with!

209 I: Of course, it doesn't have to be completely mercenary all the time!

210 L1M1: Yeah it's just not something I've really thought about. I'm not sure I would have even thought  
 211 to mention it.

212 I: Did the experience of working with the tutor group and with [S1] and [S4] did it encourage you to  
 213 collaborate with students in the future to produce these kinds of syndicated outputs?

214 L1M1: Absolutely. You know the amount of skills among postgraduate students is just incredible.  
 215 And their propensity to go out and learn more and take on more is really impressive. So absolutely.  
 216 And it also feeds, it's another opportunity to mentor, it's not all kind of "tick tick tick" you can also  
 217 provide something useful to them in terms of whether it's sort of basic professionalism, reaching  
 218 deadlines, writing emails, which can sometimes need work, or teaching the specific skills or they may  
 219 learn they are very interested in education or become a paper that you write. So there are many  
 220 ways in which it can be valuable, without a doubt.

221 I: Thank you so much!

## 1 Transcript – L1M2

2 I: For the purposes of ethical clearance, [LecturerS1M2], do you consent for this interview to be  
3 recorded?

4 L1M2: Yes I do.

5 I: Thank you so much. Right, the purpose of this interview is to try and get some sense of Open  
6 Education activities at UCT, and whether individual staff members are supported in their activities,  
7 who they talk to about their work, if they do at all, do they do it on their own initiative or are their  
8 departmental, faculty or university-wide structures that help them, Or don't help them, in  
9 conducting this kind of activity. So the first set of questions is just a baseline to understand your  
10 level of engagement with online spaces for education, generally.

11 L1M2: I think it's important to talk broadly about these issues. I think part of the idea is that it's very  
12 important, it's part of the duty of an academic to provide different content and different spaces for  
13 conversation. I think it's still a long way to go for many people to have access to academic articles,  
14 and work and classroom technology and teaching etc., so I think there is [a way] of offering actually  
15 an new window for sharing experience and at the same time offering things that are actually difficult  
16 thanks to money etc. So I think that I was intrigued by the initiative, so that's why I think I was one of  
17 the first to contribute and I tried to offer as many resources that I can for them to be Open Access.

18 I: That's true.

19 L1M2: I think that it's important because of my job, I think being a journalist, an educator and a  
20 scholar, we need to find spaces to communicate, and it's my way of paying back to the community.  
21 So I'm not only just thinking of it as social responsiveness, but it's also part of my commitment as an  
22 educator to try and find space and give what I can in this space. So yes, it was very exciting, I think  
23 it's needed, when it comes to subscription to journals, it remains a very long process for many  
24 people to access, and I think that UCT as a leader, and for me to be happy and proud to be part of  
25 the UCT staff, we need to have more of this sort of thing implemented. I feel happy and proud that I  
26 was one of the first people to contribute to this project.

27 I: Fantastic, thank you. So I want to get a sense of your involvement in other kinds of online and  
28 open spaces for education. So I know you are a very intensive user of Vula. You have a lot of material  
29 there, you use a lot of the other functions...

30 L1M2: Absolutely.

31 I: You have a lot of resources there, and so on. Why?

32 L1M2: Why? Because I think that we are not only talking about [unclear] change, but I think that we  
33 are in an era that we can use IT, why do we have IT if we don't use it to help the students? So what I  
34 do with Vula is, not only do I post comments, but I have also used it as part of my consultation  
35 process, because I think that it is also sometimes part of the limitations, as in not all students can  
36 come during the consultation times, and at the same time it allows students to have this sort of  
37 contact with me as the educator and professor. So I think it is also this kind of space for me as an  
38 educator. I try to have Vula for the announcements, the chatroom... I am very engaged with that for

39 all my courses, undergraduate and graduate, and I think that it's no use to have a platform like Vula,  
40 or before when I used Blackboard, without having them be beneficial for the students.

41 I: Absolutely.

42 L1M2: Why else do we have them?

43 I: <laughter> Precisely. Do you use other kind of online platforms? External to UCT, such as  
44 chatrooms, fora...

45 L1M2: Of course I do, I use social media. I don't like chatrooms but I am into academic forums,  
46 sometimes, when it comes to professional or academic in the sense of Academia.edu, or  
47 LinkedIn.com, but I am also into social media. I think most of the time we are still having a gap to talk  
48 about my specialisation, political journalism and political communication. I think we have a gap  
49 between academics who speak about things in comfortable offices, while journalists speak about  
50 other things, so I think that it's almost very challenging to have this kind of space, to use things that  
51 can connect these two very different audiences and have them both relate to each other. And I think  
52 that it's part of my interest, to protect, to relate, whenever it's possible. Of course, I also have things  
53 I don't share, but I'm talking about things that can be possibly shared, so I try to do that. I also try to  
54 contribute to different newspapers in South Africa and outside because again it's an opportunity to  
55 have this kind of link between academia with all the jargon language, and the profession with all its  
56 sensationalism. Its part of my passion, I would say, and part of my commitment, and it also gives an  
57 opportunity for developing this kind of collaboration and getting to know other people and other  
58 people getting to know me, etc.

59 I: With regards to teaching materials specifically, so we're not talking about opinion pieces or  
60 academic articles, but the things you would use to teach students with, or possibly use to teach  
61 external people with, had you been involved in sharing those?

62 L1M2: As I said, I only share what I own. So that's of course, but the point is its very beneficial  
63 sometimes, so for example I have some of my students and guest lecturers work as journalists, so  
64 what I do with their permission is I share some of their stuff on Vula, so I can offer the students this  
65 kind of hands-on experience of what happens on the field. We have a world-class institution, and we  
66 are very proud to be part of UCT, so I think that is stupid and dumb that we don't have this sort of  
67 bridge allowing our students to get exposed to these kinds of people and at the same time allow the  
68 people not working at UCT to collaborate in things that will be useful to the students. So I think this  
69 kind of space of conversation, of intellectual ideas, professional ideas, experiences, cases, I would  
70 say it makes the learning experience more stimulating for everybody. Again, it's a must-have, it's  
71 mandatory to do now.

72 I: Absolutely. So would it be fair to say that you consider communication and education to be very  
73 much on the same spectrum?

74 L1M2: Absolutely.

75 I: If you're not communicating about education you're reducing its chances of reaching people, and  
76 for them feeding back into your teaching.



L1M2: We need to have this kind of talking to the general public and have the general public talk to the specific kinds of things that are needed. For example one of the things, unfortunately, for those living in Africa, most of the literature is talking about Eurocentric literature. I'm not saying it's bad or good, but we need to have more indigenous knowledge, more indigenous experiences, and I think we need to make students not only have this kind of alternative views of Eurocentric versus Africa, but also to appreciate the diversity of Africa. I think one way to deal with that is to offer these kinds of, I would say unorthodox platforms, to have the conversation back and forth, and I think it's important. We want to have students who are very much aware of the markets, and at the same time who are internationalised, global citizens who are familiar with the differences within Africa, and how different Africa is from other Eurocentric or American dominated literature. Because literature is still dominated by Americans. I'm not saying it's bad, actually, but we need to have this kind of merger, a space for people to think about, place to break out of their cocoons, and think about practicality of the matter, and I want to advise students at the undergraduate and graduate level to see what's happening in the worlds, you will serve our country and university better when you experience internationalisation. Don't be narrow-minded in your approach.

I: Absolutely. I'm part of research project run through UCT which only has researchers from the Global South. So South America, Sub-Saharan Africa and Southeast Asia. And it's wonderful that you can actually run a broad-scope project without having to constantly borrow from the North.

S1M2: Absolutely. I've been also the director of the [redacted journal title] and it's Open Access, and I'm also the editor of the [redacted journal] and it's also Open Access. Because I think if you're spending time, I do edit, I have a book series called [redacted], it's a hardcopy with subscription etc. and I have a journal, again following the traditional format. But I also feel that it need to make time to give a chance and a voice for scholars in Africa. Most of the time you get this kind of report like 'The BBC has increased the number of reporters by 160 in Africa', and that's great! But let's have... I'm not saying it's bad, but let's have more spaces where we can offer this kind of diversity about Africa from Africa. And having topics related to Africa, and making it part of the scholarly and media agenda, the public agenda, is part of my interest and passion.

I: Fantastic. So, going on to the actual material themselves. When you develop materials, does UCT provide a space for that in terms of time out from your other commitments or is it really merged into your work process?

S1M2: I think I'm good with time management. Nobody told me "do that", just to be fair, nobody told me or encouraged me to do that, but no-one also told me that I'm doing wrong. So just to be fair in the story. When I knew about the project, I had one of your colleagues coming to visit me, I was immediately giving access to my Vula sites and saying "please" because I think that we are... I came to South Africa to work on the Political Education programme, and it's the only one in Africa, so I thought it was kind of stupid – and South Africa is very far away for many people – so I thought that that it's stupid that the kind of work we're doing and the kind of interest we have isn't being shared with anyone. So I started by sharing all my presentations about courses that can be used by other people. Perhaps it can ring bells. Perhaps it can lead to better conversation. Perhaps it can lead to more engagement about research, about, you know... that's fine, but at the end of the day we need to share experiences and learn about other's experiences. It's the key to being an academic, educator, and journalist.

- 119 I: So you're taking this in a big way, this is clearly very central to your beliefs and in your practice.  
 120 Would you say that within your department, there are others with a similar ethos, or do they have  
 121 different focuses?
- 122 S1M2: <deep sigh>
- 123 I: This will be confidential, and nothing that can identify people will be represented! <laughs>
- 124 S1M2: No, I'm honestly thinking. I think that if you go to the Open Access resources available, I think  
 125 it started two years ago-
- 126 I: Three years ago.
- 127 S1M2: Two, three years ago, I don't see that there is any contribution from anybody. Maybe I am  
 128 incorrect in that. I'm not all the time keeping updated with what's coming from my department.
- 129 I: I'll check up on that.
- 130 S1M2: To the best of my knowledge. So, it's an answer. I don't know, but it did not strike me as  
 131 important [within the department]... to me it's important, I make time to found this global [subject]  
 132 journal which is Open Access, though I'm not paid, though I don't even get, when I report to the  
 133 block grants, or my research report every year, if I tell them about it I never get even any  
 134 appreciation from anybody.
- 135 I: So it's not part of your performance appraisal, or anything like that.
- 136 S1M2: Nothing! I mean it's... I do it for my passion, but I've never had anyone come and tell me that  
 137 it's a good thing I engage in Open Access. Nobody does that. And that's the statement I'm making to  
 138 you. But does this mean that I don't want to [engage in Open Access]? No, I do want to do that.
- 139 I: Your commitments...
- 140 S1M2: Yeah, that's my personal, my ethical commitment to deal with that. But does it reflect in my  
 141 personal and work life? No. No appreciation for it.
- 142 I: Interesting.
- 143 S1M2: That's why I heard about the [Open Access] week and interest these days, I thought...  
 144 sometimes I think that there are conflicting messages that come in. I'm happy about it because I like  
 145 it, but does it pay me back in the sense that while you will have more time to work on it, well, you're  
 146 going to be having an appraisal on it? No.
- 147 I: Just for example, are you aware, or has anyone ever told you, that UCT has adopted an Open  
 148 Access policy last year, really strongly pushing, or they say strongly pushing in policy statements,  
 149 that people should publish in Open Access journals?
- 150 S1M2: I have never ever had someone mention... for example, I have been the editor of the  
 151 [redacted journal title] for three years now, I've been also editing the [redacted journal title], for  
 152 seven years, which is again Open Access, and I've never been paid, it's like, and I never take time, my  
 153 time to do other things to do other things related to the university, so it's taking my weekends, my

154 resting and family time, but I was never awarded for that. Never. I have been at UCT for six years,  
 155 I've never had anybody telling me "good job, you're doing something Open Access" though it would  
 156 be more prestigious for me to do... I work with Cambridge, I've had two publications with  
 157 Cambridge, but I mean I still make time to do the others. Since I took over... to be clear with what I'm  
 158 saying, since I took over editing the [redacted journal title], I can't do... I mean I'm a human being  
 159 with a family, so what I am doing so I am focusing on one of those journals more than the other, but  
 160 I am telling you that in six years at UCT I have never had anyone from the department, Faculty or  
 161 university come and tell me what a good job I am doing with free access.

162 I: I've never had anyone tell me "good job for sharing your presentations" and I'm not paid for it.  
 163 And I'm not expecting to be paid, that's not the issue, the issues is... one of my concerns is that with  
 164 these conflicting messages... is it important, are you encouraging it? What if I don't have that  
 165 passion? Do I stop, do you know what I mean?

166 I: Just on this topic, in two weeks' time on the 21<sup>st</sup> of October, there will be a discussion on this topic  
 167 from 5 to 7 on Open Access publishing at UCT. If you have the time, I think voices making your kind  
 168 of point, that the institution says one kind of thing but doesn't back it up with any sort of reward or  
 169 incentive, need to be heard. If you can make the time.

170 S1M2: To be fair and honest, I've read the announcement and I hope to be able to make the session.  
 171 I don't have any classes that day, since we're done with classes. But I'm just telling you as we're  
 172 honestly speaking, yes I do, I've been working on Open Access for the past seven years, I've been  
 173 writing policy papers inside and outside South Africa, I don't get paid and I've never intended to.  
 174 Before I was a journalist, a professional journalist, and was being paid to do this. As part of my  
 175 interest in OA, in having a platform and so on... I have to admit it gets frustrating at times, because  
 176 when I get really excited about things, there is [no support] there.

177 I: Right, this is an absolute goldmine. There's one more section that's relevant to the project. So we  
 178 had students from different Faculties, departments, units and disciplines, and they performed a  
 179 number of different changes on the materials: performing copyright clearance, ensuring there was  
 180 no third-party copyrighted material in them and so forth, adding reference lists, those kinds of  
 181 changes. Did [S1] communicate about those changes to you at all?

182 S1M2: No.

183 I: Cool. Well, not cool, but good to know!

184 S1M2: Just to be honest...

185 I: We need honesty, please! The project's over, so there's no... right. So, you wouldn't be able to say  
 186 if there were areas of the process...

187 S1M2: You know what? One of the frustrating elements that the people who are engaged with these  
 188 Open Access [initiatives], they are not from South Africa or UCT. Which is good but in a way it's not  
 189 good. I mean, with the presentations and the Open Access materials.

190 I: Oh, I see. You mean, there's nothing local.

191 S1M2: I think part of the issues is once again, these conflicting messages. So I get sometimes emails,  
 192 or messages on Facebook or LinkedIn, but it's not clear what they want me to do. Do they want me  
 193 to go for that, or...

194 I: This is very important. One of the reasons we tried to get students involved in this process was an  
 195 acknowledgement of just what you said, that lecturers are heavily overburdened, a lot of the work  
 196 they do isn't recognised anyway, and we thought that students could take their materials and make  
 197 changes to them, like changing images for Open Access images.

198 S1M2: Absolutely.

199 I: Do you think that's a valuable service that the students could provide?

200 S1M2: Absolutely! Because, number one, the students getting involved they will benefit at two  
 201 levels, at least. Dealing with the information, and at the same time, branding the information with a  
 202 more youthful, contemporary feel, which is absolutely fair. I mean, it's kind of stupid to have it be  
 203 stagnant. I don't want my students to just copy me. I want to initiate ideas and promote critical  
 204 thinking. If my students are going to read critically with the material, they will change it, they will  
 205 reflect on it, they will absorb it, then it will become more contemporary for the age group that is  
 206 engaging with it. Though I do my best to avoid the jargon language, maybe there is still... I learn from  
 207 the students in the lecturers, and I'm grateful that I can do so every year. I find it an eye-opening  
 208 experience to find more innovative, more contemporary, more cool ways to deal with them. At the  
 209 same time is how I can develop material to be solid. To not to be stagnant or boring, to make it more  
 210 interesting. Definitely, I learn by trying to take the challenge, but at the same time if they take the  
 211 material and try to project it their way, then definitely. And if they do [engage with the materials],  
 212 they need to be rewarded. I do it because of my passion, but they need to be rewarded.

213 I: Yes indeed. So one of the nice things about them, although evidently your student didn't  
 214 communicate with you, was that [S1] actually comes from a [discipline] background, so she was  
 215 working on your [discipline] materials. So there was a disciplinary linkage there, although she wasn't  
 216 directly in your course. Do you think it would be better to have students who are in your  
 217 discipline...?

218 S1M2: No, absolutely not! Because I mean, we are living in an inter-disciplinary world, and when it  
 219 comes especially to me, I work with colleagues in [various Humanities disciplines], a whole lot of  
 220 things. So, most of the time, students who are really good in our field are students who are oriented  
 221 to the different disciplines. We don't want students who have a kind of one-track mind.

222 I: Absolutely.

223 S1M2: And [S1] was a lovely person, if it's the same person I met before.

224 I: Yes. The final question then is if we had described a different kind of project, if we had come to  
 225 you and described the process and just said, 'wouldn't it be great if you took these materials and  
 226 perfumed copyright clearance and all the other changes necessary, but we're not going to help you,  
 227 we can't offer you any time, we're just raising awareness'. Would that have been an incentive or a  
 228 disincentive?

229 S1M2: I would say in the medium and long term, disincentive. On the short term, it depends, not all  
230 scholars like teaching, not all teachers are good scholars. I think the link is the passion. So, passion  
231 cannot depend on a project.

232 [missing segment]

233 S1M2: Also, I've been engaged in forms of Open Access in teaching for a long time. When I was in  
234 Egypt, I was very involved in online education.

235 I: I'd love to hear about that.

236 L1M2: Yeah, it was global classes, and web conferencing, before coming here. But here, because of  
237 the technology, and because I honestly felt that... well, I personally have many contacts that I can  
238 work with. But, we talk about South Africa, the southern gate of Africa, and we are not connected  
239 enough, and IT can become our platform to make students more aware. That's something that  
240 needed more people to get involved. Because I can make sure of the quality of the content, I can  
241 collaborate with colleagues in other countries, but it can definitely be a waste of time. I've had  
242 conversations with colleagues for six years, but because I am the one who always has to make sure  
243 of the compatibility of the technology... I mean, I can't.

244 I: It's not what you do.

245 L1M2: No.

246 I: You're an educator and a journalist.

247 L1M2: There are many things that to emphasise your point, there are many things that can be done  
248 with technology, but we don't utilise what we have.

249 I: I'd like to talk to several people in the department and see if they can maybe talk to you in the  
250 future.

251 L1M2: Yeah! I mean, I had web conferencing, I had a network of 49 universities before I came here.  
252 We used to have lecturers, and workshops and discussions with America, European and Arab  
253 universities, but here it was... there are partners, there are interested, they keep asking me all the  
254 time, but I have to tell them 'here they are not interested, there isn't really the support, and so I  
255 can't enter this kind of relationship... because I can't worry about the technology, I am very familiar  
256 with the technology, it's easily learned, but you still need help from the institution.

257 I: Let me take this to some of our departmental meetings, because we do have some people who  
258 can provide that sort of technological support so you don't have to do that kind of work. Just as an  
259 idea, if you're interested.

260 L1M2: Yes! Absolutely.

261 I: Fantastic. That is everything. Thank you so much, [LecturerS1M2].

262 L1M2: It was a pleasure, and I hope I was able to answer all your questions.

## 1 Transcript – L3M1

2 I: For the record: do you consent for this interview to be recorded?

3 L3M1: I do.

4 I: Fantastic, thank you. Right so the purpose of this interview is try and determine what value, if any,  
5 student participation has in advancing open education at UCT. Taking teaching materials and putting  
6 them online, performing all the changes and editing required, takes a lot of effort, as I'm sure you  
7 know. And lecturers of course are absolutely swamped in all of their other work.

8 L3M1: Yes.

9 I: And so, while some lecturers might be interested in contributing, they lack the time to do so. I'd  
10 like to start with a baseline to see what involvement in open and online education you currently  
11 have, and how teaching materials are produced and communicated about in the department. Would  
12 you say you are a strong or involved user of Vula, as a system?

13 L3M1: Yes, I would say that I use it quite a bit.

14 I: And then, what are the main ways in which you use it?

15 L3M1: I mostly use Vula as an announcement platform. I use other platforms for putting up the  
16 information I produce for students. But I use Vula for the courses I teach, using the announcements,  
17 and also checking the chat sections to see if there are any major problems and then to put resources  
18 as well.

19 I: What other platforms do you use for putting up education materials?

20 LSM1: I've been involved in setting up a mathematical blogging platform called MathemAfrica. It was  
21 initiated last November at the African Institute for Mathematical Sciences, along with people from 15  
22 other African countries, and we decided it would be a useful idea to set up a mathematical blogging  
23 platform where anybody in Africa could write mathematics in any language they wanted. Since  
24 setting that up, I've been pushing to get other people to write. I got a few people to write, but I  
25 found it would be a useful platform for me to put up any material I write. So basically after every  
26 lecture I give, I put up a blogpost which goes up with the notes for that lecture, to allow students to  
27 go online to see the notes and to comment if they want to.

28 I: Wonderful! I believe that answers the next question, which is whether or not you are engaged in  
29 any forms of open culture, which obviously you are. But the other 'opens' – open science, open  
30 source software, open access publications – do you know of these?

31 L3M1: Sure, so certainly in my research I use OA publications, and I've done a lot of online courses in  
32 Coursera and Udacity, do I'm actively involved from the other end, from the user end, as well.

33 I: Fantastic. [S3] did say that you were involved in open source software...

34 L3M1: Well, not software so much, though I do like to put code up when I write a programme in  
35 Mathematica, which I think will be useful for the students, then I do tend to put that up as well.

36 I: So for the MathemAfrica project – were you using any other sort of social media or online  
37 education before the project began?

38 L3M1: No. So, currently, we use Facebook to promote MathemAfrica, but not apart from that, Oh,  
39 and Twitter.

40 I: And then one of the biggest bugbears of this whole system is the question of licensing and  
41 intellectual property. Do you feel you have a decent understanding of these concepts.

42 L3M1: I think so. My take on it is that I want this to be as open as possible, so, in a sense if I create  
43 something then licensing isn't really an issue. I want people to know they can share and use this  
44 information however they want.

45 I: Yes. And then you just signify that... well the platform already is open.

46 L3M1: So it's not open in that sense... its open in the sense that people can view it, but in order to  
47 contribute to it, you can write comments, but to write on the platform itself you need a username  
48 and ID, and it needs to be ratified by the group of people who organised this.

49 I: Thank you so much. So the second question is about how you develop materials, just generally. Do  
50 you have set times of the year, day or terms which you set aside for developing new materials?

51 L3M1: Often over weekends. So most of my weekends are taken up with writing lecture notes, and  
52 those lecture notes are the blog posts. So I wrote the course notes for this course 2 years ago now,  
53 first time when I wrote it, and then I'm adapting those for the blog. So generally my weekends are  
54 taken up with adapting older notes and materials into post form.

55 I: So you wouldn't say that UCT provides for set periods of time that you can use?

56 L3M1: Not specifically.

57 I: Not in a systemised way.

58 L3M1: No, though I think I arrange my time... I mean one of the nice freedoms of academia is that  
59 we can arrange our own time to be flexible with our time, so there is nobody that says you must do  
60 it at this time," so I choose to do it over weekends.

61 I: And in developing these materials, do you talk with other colleagues in the department, or  
62 international colleagues? Do you ratify or bounce the ideas off anyone else?

63 L3M1: Generally not in the writing-up, though I try and spread the word about them and say people  
64 should be using these as well, and I try to get people to leave comments on the notes themselves,s  
65 generally from students rather than lecturers. I also set up competitions for the students to find  
66 mistakes in the materials, and, for instance, over the half-term period I sent the person who found  
67 the most mistakes a little surprise.

68 I: When developing these materials, do you generate them entirely yourself, or do you use other  
69 online resources, or textbooks, or notes shared in other spaces?

70 L3M1: I link to a lot of other spaces, um, a lot of the material or the ideas of the material comes from  
 71 one particular textbook, but I use a lot of other resources as well, but I like to link. For instance if I  
 72 found a particularly useful video, I'll link that to the end of the blogpost. So yeah. I use a lot of  
 73 different materials.

74 I: And you find the majority of these extra resources online?

75 L3M1: A lot of them are online, yes. And I ask students to tell me when they find them as well, if  
 76 they find them particularly useful. They don't tend to do it much, but every now and again I'll find  
 77 something useful to read through.

78 I: Occasionally yeah. And maybe you won't be able to ask this question, but within the department  
 79 as a whole, is there a culture of making materials available, through whatever platform? Internally  
 80 through Vula, or externally...

81 L3M1: There isn't currently, but my plan for next year is to set something up at least, that all those  
 82 teaching first year will be sharing materials.

83 I: Fantastic. Please contact us by the way if you need any support in setting up any of these, because  
 84 we do those kinds of things.

85 L3M1: Okay, oh really? Absolutely, that would be great. So, I had a chat actually yesterday with  
 86 somebody and we agreed that it was ridiculous that there were so many people who were teaching  
 87 the same thing; you know, there must be literally a dozen lecturers teaching basic calculus, and we  
 88 all come up with our own materials, and that seems balmy. So absolutely, anything you can do to  
 89 help would be wonderful.

90 I: Yes, please do contact us. So onto the [L3M1 course] materials. I was overseeing a group of  
 91 students, from different disciplines - politics, economics, sociology, etc., and a lot of them had  
 92 different kinds of materials to work with which required different kinds of intervention - some were  
 93 adding references, some providing context for materials that were designed for a classroom  
 94 environment and didn't translate well to an online environment. Can you remember what kinds of  
 95 changes that S3 did to the work?

96 L3M1: So I never actually saw the work.

97 I: Okay?

98 L3M1: I don't think. He took the material away, and I really never heard anything after that. I don't  
 99 actually know what form they are in now.

100 I: But that didn't particularly bother you, or would you have preferred more...

101 L3M1: I would have liked to go over it, but it was his project and I was happy to let him do that, um, I  
 102 didn't want to take on another responsibility for checking what was going on there.

103 I: It's a big responsibility, since it's a lot of material.



104 L3M1: Sure. And I'm well aware that there are mistakes in there, that students find year-on year,  
105 and I hoped that he found the, but i wasn't going to spend another how many hours going through  
106 and checking myself.

107 I: He did in fact say that the only changes he made were minor grammatical errors.

108 L3M1: There are certainly mathematical errors in there too, I'm aware of, that students that have  
109 flagged.

110 I: But you have a system there for dealing with those already. The ones that students have flagged, I  
111 mean.

112 L3M1: I get the students to email me, and they get some bonus of some form, if they find more  
113 errors.

114 I: That's such a lovely idea. More lecturers should do that <laughter>. So you weren't particularly  
115 involved in the process. This may then be a strange question, but what about the process... or  
116 perhaps about the vent, rather than the process, do you think was the most valuable?

117 L3M1: So to be to honest because I had so little interaction, I wasn't involved with the process at all  
118 other than handing it over, and then discussing it very briefly.

119 I: This in fact is your material. So it's had 700 views, 2 a day, since it was launched, with a very high  
120 rate of people actually clicking through to the resource itself. It's an unusually high rate, especially  
121 given the short amount of time that it's been out there.

122 L3M1: Really? That's great. How did people get to know about this?

123 I: So this is open in the sense that it's indexed by Google directly. There's no login or anything  
124 required. It's not directly advertised or pushed, it's just there. But because it is linked up to all the  
125 major search algorithms, it gets pushed up quite quickly when it's searched for and found.

126 L3M1: Okay, nice.

127 I: And, I'll definitely go and check out the blogging site...

128 L3M1: Yes, please do. And if there's any way you can link to that we're really interested in steering  
129 people towards the blog. Or indeed if you know people who might like to contribute. We're looking  
130 for people who are interested in putting little articles or making their lecturer notes open, we'd  
131 welcome that.

132 I: I know several postdocs in the University of North Carolina who I'm sure would be interested.

133 L3M1: So, we're looking predominately for people within Africa, but if they have some African  
134 connection...

135 I: They're all African expats, if that helps?

136 L3M1: That's certainly good, we're looking to get especially people whose first language isn't English,  
137 we'd love to get this as multi-lingual as possible. We're looking for more African languages. So far

138 we've got a Xhosa post on there, we've got a sePedi host, and we're looking to branch out and have  
139 the whole platform itself in multiple languages as well.

140 I: The Open University of Africa is a massive OER portal and they are connected... they primarily use  
141 English, French and Portuguese as those are the most spoken languages, but they also have a lot of  
142 material in Swahili as well.

143 L3M1: Please, I'd love to find out more about that.

144 I: They also run really good conferences. Education is their prime focus.

145 L3M1: That would be great as well.

146 I: So these will be a bit of a stab, given your relationship with the process was quite hands-off, but if  
147 a different student came to you with the same request, but the student was outside of your  
148 discipline, would you feel equally comfortable with a student outside your discipline?

149 L3M1: Yes. I would need to give disclaimers about the quality of the material, but otherwise  
150 absolutely. I would want them to be available to anyone who wants to be able to use the... and that's  
151 independent of discipline. But they would need to have the caveat that there are plenty of mistakes  
152 peppered throughout, and I have not spent a long time going through checking because there are  
153 200 pages in this set of lecture notes.

154 I: Right, yes. And then, would it be fair to say that the level of qualification of the student wouldn't  
155 be particularly relevant?

156 L3M1: Well, I wouldn't say it wouldn't be relevant. So, of course if it was a mathematician, or  
157 somebody who has studied maths, that's certainly relevant, but it wouldn't necessarily mean that I  
158 wouldn't let someone else have the notes if they weren't in maths degree.

159 I: So subject knowledge would be valuable, it would be more of an incentive.

160 L3M1: Exactly.

161 I: Fantastic, great. If a completely different project had come up to you, which you've demonstrated  
162 knowledge about already, and said "wouldn't it be great if you took these materials, and these are  
163 some resources to help you, and cheers" - they provided no support, aside from information on the  
164 process, would that still have inspired you to do the work?

165 L3M1: If it seemed like a useful portal, if I had already written the notes... I think I wouldn't have  
166 written the notes for a portal outside of my work, but having already written them for my class, I  
167 would have been happy to put them up on as an online resources.

168 I: Would you have gone through the same process of checking the changes the students did make...

169 L3M1: So, since I don't really know what the process was, it's difficult to say whether or not I would  
170 have been willing to put in the same effort...

171

## 1 Transcript – L4M1

2 I: Just for the record, do you consent for this interview to be recorded?

3 L4M1: I do.

4 I: Fantastic. The purpose of this interview is just to get a sense of your role in Open Education and  
 5 [Department A], how they engaged with this. And more specifically the use of student adapters in  
 6 the process of making materials available. So I'd like to start with asking you a few questions about  
 7 your own sharing practice, and your creation of materials, how you go about that.

8 I: So to start off, where you aware of any sort of Open Education before the project began?

9 L4M1: Any sort of what education?

10 I: Open Education.

11 L4M1: Um, no. As far as I knew, it was just educational materials, online. I guess then technically yes.  
 12 I'd done a lot of English teaching, and a lot of the materials we'd used were open source materials,  
 13 such as lesson plans and other materials, that I would then use. I wasn't aware and don't think I  
 14 used, in terms of my [discipline], any sorts of online or open-source stuff.

15 I: And had you seen any other kind of online education things, like TED talks, or MOOCs, or any of  
 16 that kind of stuff.

17 L4M1: I've seen TED talks, I've watched for my own interest, but I've never used a TED talk in a  
 18 lecture or a tutorial. They're too long.

19 I: Thanks so much. First of all, do you remember this project?

20 L4M1: I had to find my notes from the proposal to refresh my memory.

21 I: Yes, doing an interview three years after the project finished was possibly not the best strategy!

22 I: So, this project was in 2013. Had you shared, and by sharing I mean any kind of sharing, any sorts  
 23 of teaching materials before the project had begun?

24 L4M1: Yes, so the first set of materials were [S4M1]... so I've had four to five separate OpenUCT  
 25 grants...

26 I: Through [CILT staff member]?

27 L4M1: Yes. A couple were to redevelop the [S4M1] materials, some were for what we call the  
 28 "fourth lecture", kind of like [S4M1], but for the higher level students, second and third year  
 29 students. What else did we do... oh, the other one was for a writing course, an English grammatical  
 30 course as well. We took full advantage of the money that was available.

31 I: So, it was a sort of a capacitating agent for a process you were already going through.

32 L4M1: Yeah, exactly.

33 I: Who do you see as your core audience for these open materials, who do you really want to engage  
34 with them?

35 L4M1: Online?

36 I: The open materials, yes.

37 L4M1: To be 100% honest, our point of going through OpenUCT was to get the funding to change  
38 the materials for our students. I did think and I think I said it in the proposal that they are great  
39 resources for people in Humanities and who want to start up their own programme, but to be  
40 honest that was a secondary feature. I wasn't doing it to provide for other students to do this, it was  
41 more that we wanted to refine our own materials in [Department A], they're offering money, and all  
42 we have to do is put them online which we had no issue with, so we did it.

43 L4M1: But I mean ideally the people who would use them online would be people who are running  
44 materials people who are part of the education development unit, who are in charge of that can  
45 then use it and adapt it. But when I was part of what I think now is the [academic support unit], I  
46 told people about these. And they were quite impressed with how structured our lessons were, and I  
47 told them "look it's all on OpenUCT" you can download it. And I did ask if anyone downloaded it, and  
48 I don't think anyone did. I think it was almost kind of a... like, an ownership thing, something like  
49 "these aren't ours, they're from [Department A], we want to make out own thing". And they could  
50 be fairly easily adapted, but maybe they thought they could do it better, or maybe they thought that  
51 these weren't suitable for what they did.

52 I: So the core audience was really your own students, and all of this was additional value, but not the  
53 core purpose.

54 L4M1: Exactly. The core audience was out own students, and if other people could take advantage of  
55 them, that was additional.

56 I: And this was aimed at first, second, possibly some third-year students, that was the range.

57 L4M1: Yeah, [S4M1] was just for first year students, it was very basic, really for people who came  
58 underprepared, that's what it was for.

59 I: Fantastic. You mentioned that within the ADU group, they were not reusing the materials. They  
60 saw them as valuable but they didn't reuse.

61 L4M1: In the year that I was involved, when it was formalised, there was funding, but as far as I  
62 know no-one used it. But I know they have continued, the person who took over me as the [support  
63 unit] programme officer in [Department A], she still uses them, she might have tweaked them, but  
64 they are still in use.

65 I: I was going to ask, have you looked at them, their performance in the repository?

66 L4M1: In terms of use as in whether or not they helped students grade?

67 I: Unfortunately the metrics aren't quite as advanced as that, yet...

68 L4M1: I actually did a, before I left, the HoD wanted to know, “is this working”, so I did a very quick  
 69 probably very un-academic study, and basically the marks before and after, I tried to control for the  
 70 group that was in [S4M1] and the ones who weren’t, and the number weren’t positive. The numbers  
 71 were basically saying there was very limited growth from them. So quantitatively, it didn’t seem to  
 72 work. Qualitatively, students said in their evaluations that they loved it. They found the materials  
 73 very helpful, they found them easy to use, and our reason for using OpenUCT to change it was the  
 74 first materials were very dense, text-heavy, they were two tutorials at once and the timings didn’t  
 75 work. So we decided to split them up, we wanted to have a teacher’s manual and a student manual,  
 76 so the student manual would only have materials useful for them, like open source cartoons. We  
 77 tried to make them a bit more exciting.

78 I: In terms of who actually did the work, in the development process, so from our side [S4] and [S1]  
 79 were the adapters... do you remember who you worked more closely with?

80 L4M1: [S4] and [S1] were both, sort of... I was supervising, but they did the work all themselves.

81 I: In conjunction with the other tutors, or...

82 L4M1: For that one, it was just [S4] and [S1].

83 I: And did you have a sense of what they did, in terms of opening up the materials, as opposed to the  
 84 pedagogical development side of things, the other things needed to make it into an open resource.

85 L4M1: I couldn’t speak to whether they did stuff on their own... we had several sessions before they  
 86 started working, kind of going over what materials we had, what we did and didn’t like about it, and  
 87 how we wanted to change them, I was kind of going off my previous experience of teaching  
 88 [Department A] but also of teaching English, and trying to kind of use that to structure these ones.  
 89 To work on lesson plans for each, and to use those lesson plans to develop the new materials.

90 I: Because the materials were very carefully crafted, if I can put it that way. The design was very  
 91 evident, even to someone who didn’t... I mean I’m a Humanities graduate, with very little knowledge  
 92 of [the S4M1 discipline], but I could see the way in which the materials were carefully constructed.

93 L4M1: Yeah the goal wasn’t to... I mean some people disagreed, but the goal wasn’t to make it an  
 94 extension to make it an extension of the tutorial, wasn’t to be for [Department A], it was there to  
 95 provide skills that students needed, and one of the things we wanted to get away from was this idea  
 96 of an interchangeable thing. We wanted to have a clear differentiation between the mainstream  
 97 departmental tutorials, and the [S4M1] tutorials. And I know a lot of other departments who maybe  
 98 blurred the lines between the two, and that was kind of the point of that, we wanted to make sure it  
 99 wasn’t, that they were carefully crafted, so this is where we’re developing these skills, using  
 100 [Department A] as a base for familiarity for the students, but you were there to learn specific skills  
 101 on essay writing or connector words, you’re not there to learn about what Plato said, that’s for  
 102 regular tutorials.

103 I: Fantastic. These materials are quite agnostic in their approach, as you’ve been saying. Was there  
 104 ever any concern that these might come under negative criticism?

105 L4M1: What kind of negative criticism?

106 I: That someone who saw them on OpenUCT might say that these materials are, in whatever fashion,  
107 inadequate?

108 L4M1: I don't think we worried about that too much. There always was sort of negativity within the  
109 department regarding [S4M1], there was when we were writing them, and there still is today. I  
110 haven't been there for a year, but it was very difficult to get money from the department to do this  
111 for example, which is another reason why we had to go through OpenUCT. So as far as whether we  
112 were concerned about criticism, well, we were kind of like "who cares?" We know that people are  
113 going to criticise, some people are maybe not going to be happy about this, but we think this is  
114 valuable and we want to improve the programme so we're just going to go ahead with it.

115 I: And the nature of the materials themselves didn't really lend themselves towards criticism, these  
116 are universal skills.

117 L4M1: Yeah exactly. The skills were something that could help not only in [Department A] but in any  
118 subject, so that was the goal of it, not to improve your [Department A] mark but that in second and  
119 third year people would remember how to do [essay writing] because they learned it in [S4M1].

120 I: Sure, sure. Can you give me a sense of the role of the department? You mentioned that there was  
121 some difficulty in getting funding, and that maybe not everyone thought it was valuable? Was this  
122 an individual or small group decision, or was it a departmental decision that had internal conflicts? If  
123 that makes any sense?

124 L4M1: There is a lot of politics in the department. There was a huge amount of it within the  
125 department, and a lot of it came down to this project. There was myself and another student named  
126 [L1M1] and we were in charge of the ADU. The HoD at the time was [redacted] who was fully behind  
127 us, whatever we wanted, she would give it. She gave us a little bit of funding, but mostly we knew  
128 that if other professors or lecturers were like "what are these guys doing" she would have our back,  
129 [she would support us]. We didn't have to deal with them, she would deal with them. We would go  
130 to staff meetings and such, we were really involved in the department.

131 L4M1: In 2014/2015 that changed to [redacted]. He was very lukewarm towards the idea. He didn't  
132 really want to do it. So all this work we had, all the writing we had in terms of the fourth lectures,  
133 they're gone now. All the work we did, all the OpenUCT materials have been set aside, they refused  
134 to fund it. [S4M1] is still there because it has Faculty funding, but there's no support for it.

135 L4M1: For the life of me I couldn't understand why we would get this kind of friction or negative  
136 feedback. We're doing them a favour, we're trying to help their students write better essays, and are  
137 better at their work to make it easier for them when they mark! But it was clear from them that they  
138 didn't really care. And that was really tough.

139 I kept a low profile and just tried to get along with the work, but [L4M1] was much more... she  
140 pushed, and really pushed for funding, and said things that I said "I don't think you should say that."  
141 And she's still there, she's doing her PhD, but she's really been pushed out of the department. She'd  
142 in a different department, the [redacted] department, and she's really a bit of a persona non grata  
143 for really pushing to do stuff that would help students that need that help! So it was a really  
144 interesting time.

145 We wouldn't have been able to do, to make the changes we did, without the help of OpenUCT's  
 146 funding, because we got nothing. We also used it to pay for our time, because we were putting 20  
 147 hours a week and the department wouldn't even say 'thank you'. So OpenUCT was really a bit of a  
 148 godsend, not only did we get to improve the materials, but also to pay for our time.

149 I: And the department wasn't funding you, or investing much of their time even, so they provided no  
 150 support but at the same time they were still passively-aggressive against the project.

151 L4M1: Yeah.

152 I: or at least, making things difficult.

153 L4M1: There was still benefit, even when [S4M1] became a separate course code, one of the  
 154 lecturers became the convenor. He had no idea what was going on but he was the convenor. It was  
 155 good for him, because by the end he had eight to twelve courses which adds up to move up the  
 156 ranks. When as a matter of fact, I was convening the course but I didn't get any credit. It was an  
 157 interesting time.

158 L4M1: I mean I don't regret it, I enjoyed my time in the department, but it still boggles the mind at  
 159 the kickback we got for trying to make it better for the students.

160 I: That is very interesting.

161 L4M1: One of the reasons why I no longer work in the department.

162 I: It's not unique but that is surprisingly bolshie reaction.

163 L4M1: Another person is [redacted]. She's always been fantastic and supportive of us, and she  
 164 always said one of the hardest things was dealing with the [Department A] department, because  
 165 people would say "I don't want to do that". It costs you nothing, I have found funding, I will pay for  
 166 it, in my own time, and they'd be like "no, I don't want to do it."

167 I: Absolutely bizarre. <laughing>

168 I: Part of the process that [S4] and [S1] did was to go through a copyright clearance process, to go  
 169 through the materials and check for any third party materials, check their licensing, swap out or give  
 170 open-source alternatives for them. Did you engage with them about that process? Who drove that?

171 L4M1: I don't think I ever emailed them and asked "what's the deal with this?" I think they sent us a  
 172 document that explained the different levels of copyright clearance, especially when you uploaded it  
 173 onto OpenUCT it asked what licence you'd like. I think that was the first time I thought "what does  
 174 that mean" and I had a quick look and then just chose the full, you know whoever wants to use them  
 175 can use them. I tried to think if there was an advantage to restrict them, and I thought "not at all, it  
 176 makes no sense to say only some people can access it" so we just [chose the most open licence].

177 I: Going through the licensing, the particular differentiation between them, would you say it doesn't  
 178 particularly interest you?

179 L4M1: Yeah.

180 I: It was the sharing that was important.

181 L4M1: It was the sharing yeah. I mean for us, if you're sharing something, you might as well give it to  
182 everyone, to as many people as possible. The least amount of hassle to actually use the document.

183 I: Are you aware of copyright as regards to the internet?

184 L4M1: To be honest, no. I don't really have much of an opinion on it either way. If someone wants to  
185 use my work, within reason, they can, and I've used things that copyright people would say "you're  
186 not allowed to use that." It's only fair.

187 I: Assuming you were still thinking of an academic career, would you say sharing your materials is  
188 either part of your responsibility generally or as a career-enhancing mode, specifically in regard to  
189 sharing online?

190 L4M1: You mean not just in terms of teaching but also in terms of materials that are published?

191 I: More just in terms of teaching materials, things you'd use in the classroom or tutorial  
192 environment.

193 L4M1: Um, yeah, definitely. I think the thing with academia is that, unfortunately, that teaching is a  
194 secondary... that your job is to get published. Of course I want all of my work to be on the internet so  
195 that people will reference me, but teaching wise... no-one really seems to care, at least at university,  
196 where you got your stuff from. So I used it for examples, to see how people taught subjects, trying to  
197 take ideas from what they did to enhance my own lecturing or tutorials. Really I think anyone who  
198 wouldn't do that... it's an odd move to me because you'd have nothing to use. The more people who  
199 share ideas... for me it goes back to me doing TEFL (Teaching English as a Foreign Language), we used  
200 to get together with other teachers at a bar or after work and compare ideas of how we taught, and  
201 we would share materials and resources. Because in the end if someone also teaches well, it doesn't  
202 make me look bad, it just means that if I give you something and you give me something it just  
203 makes everything easier. So it really makes sense at university level to say "here's how I taught this, I  
204 have difficulty with this" and then you have a discussion. That's how you become a better lecturer or  
205 teacher.

206 I: Fantastic. Thank you so much, it's been very interesting.

207 L4M1: Tell [L4M1] I said hello. I know she also taught the fourth lecture, she should have some  
208 perspectives.

209 I: Will do. Thanks again!



## Appendix C – Consent forms

### Consent Form – Student adapters

You are asked to participate in an in-depth interview on the adaptation of teaching and learning materials into Open Educational Resources. You were selected as a potential participant due to having contributed to the University of Cape Town's OpenContent educational repository, through the Vice Chancellor's Open Educational Resources Adaptation project as a student adapter.

The purpose of this research is to determine what quality changes student adapters perform on teaching and learning materials in order to make them into Open Educational resources (OER), and whether the adaptation process and the inclusion of student adapters could support OER production at the University of Cape Town.

By signing this form you are agreeing to participate in a one hour interview to be held in the location of your choice. The interview will be recorded and transcribed. Anything that could identify you, including your name, department or institution, will be made confidential to protect your identity. After the interview has been transcribed, it will be returned to you and you will have a chance to confirm that it is a valid representation of your views. Once all identifying items have been removed, the interviews and all resulting data will be shared publicly.

At any point in the study you have the right to withdraw, and any information gathered up to that date will not be used in any form. If you would like to withdraw, please see the contact details at the bottom of this page.

No potential risks to you, your department or the university are envisaged as a result of this study.

By signing this form you are agreeing that:

- The nature and purpose of this interview have been explained to you;
- Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law;
- You consent to your interview being shared, as long as your confidentiality is maintained.

If you have any questions before or after the interview, please feel free to contact the researcher at [Thomas.king@uct.ac.za](mailto:Thomas.king@uct.ac.za), at [redacted], or [redacted].

**SIGNATURE OF RESEARCH SUBJECT**

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

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Name of Subject/Participant

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Signature of Subject/Participant

Date

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Subject contact email address

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Name of Researcher

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Signature of Researcher

Date

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Researcher contact email address

### Consent Form – Lecturers

You are asked to participate in an in-depth interview on the adaptation of teaching and learning materials into Open Educational Resources. You were selected as a potential participant due to having contributed to the University of Cape Town's OpenContent educational repository, through the Vice Chancellor's Open Educational Resources Adaptation project as a participating lecturer.

The purpose of this research is to determine what quality changes student adapters perform on teaching and learning materials in order to make them into Open Educational resources (OER), and whether the adaptation process and the inclusion of student adapters could support OER production at the University of Cape Town.

By signing this form you are agreeing to participate in a 30 minute – 1 hour interview to be held in the location of your choice. The interview will be recorded and transcribed. Anything that could identify you, including your name, department or institution, will be made confidential to protect your identity. After the interview has been transcribed, it will be returned to you and you will have a chance to confirm that it is a valid representation of your views. Once all identifying items have been removed, the interviews and all resulting data will be shared publicly.

At any point in the study you have the right to withdraw, and any information gathered up to that date will not be used in any form. If you would like to withdraw, please see the contact details at the bottom of this page.

No potential risks to you, your department or the university are envisaged as a result of this study.

By signing this form you are agreeing that:

- The nature and purpose of this interview have been explained to you;
- Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law;
- You consent to your interview being shared, as long as your confidentiality is maintained.

If you have any questions before or after the interview, please feel free to contact the researcher at [Thomas.king@uct.ac.za](mailto:Thomas.king@uct.ac.za), at [redacted], or [redacted].

**SIGNATURE OF RESEARCH SUBJECT**

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

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Name of Subject/Participant

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Signature of Subject/Participant

Date

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Subject contact email address

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Name of Researcher

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Signature of Researcher

Date

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Researcher contact email address

## Appendix D – Interview schedule

Concept	Research Question	Assumption	Objects	Students	Lecturers
Complexity – Reauthoring	What changes to lecturers' teaching and learning materials were made by the students, and in what ways did these changes influence the quality of the materials? [RQ3]	Students do not recreate or re-author content.	Were any objects reauthored or recreated?	Do students recreate content?	Were any of your materials reauthored or recreated by the student adapters?
Complexity – Summarising	What changes to lecturers' teaching and learning materials were made by the students, and in what ways did these changes influence the quality of the materials? [RQ3]	Students undertake limited summarising, repurposing and reversioning of content.	Were objects summarised, repurposed or reversioned as part of the adaptation process?	Do students adapt existing content by summarising, repurposing or reversioning?	Did students provide useful insight in summarising or reversioning materials to be more useful to learners?
Complexity – Resequencing	What changes to lecturers' teaching and learning materials were made by the students, and in what ways did these changes influence the quality of the materials? [RQ3]	Students do not personalise materials, but they may undertake minor translational and Resequencing work.	Where objects translated, personalised or resequenced as part of the adaptation process?	Do students adapt existing content by translating, personalising or Resequencing?	Did students provide useful insight in translating and Resequencing materials to be more useful to learners?

Complexity – IP Management	Do UCT lecturers engage in Open Education?	Lecturers prefer more restrictive licensing for their resources.	What licenses have been applied to completed OERs?	How did you negotiate with lecturers about ascribing creative commons licenses to their materials?	Do you feel that creative commons licenses are valuable or necessary?
<b>Questions specific to staff</b>					
Observability/ Compatibility – Lecturer Practice	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Academics are increasingly aware of Open Access, but not Open Education and OER.	Were you aware of the Open movement prior to the project?		
Compatibility – Practice	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers do not share teaching materials openly, though they may engage in limited peer-to-peer sharing.	Were you engaged in sharing teaching materials openly before the project?		
Compatibility -- Practice	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers produce their own materials; existing materials serve as inspiration, not remixed.	In creating your own lecture materials, did you reuse existing materials? If so, where did you find these materials?		
Compatibility – Practice	What do the contributing lecturers identify as the key factors in their willingness	There are no formal incentives at UCT for sharing teaching materials.	Does the institution, faculty of dept. encourage you to share your teaching materials? - Do fellow staff share materials and do they talk about sharing? - Do departmental managers talk about sharing?		

	to engage in OER adaptation? [RQ2]		- Do your students expect you to share your teaching materials?
Relative Advantage	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers want to engage their own students with their teaching materials; some are interested in a wider audience.	Whom do you want to engage with your teaching materials? - Your students? - Other students at UCT? - Students at other institutions? - Other academics?
Complexity	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers appreciate the work students provide but don't understand the depth or complexity of that work.	What was the value of the student's work on your materials? What did the students provide that you found valuable?
Compatibility – Time	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	A small category of early adopters/early majority would have undertaken adaptation work.	Would you have undertaken the adaptation work yourself if you had no student to support you?
Resultant demonstrability	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	No assumption.	Do you think other UCT students will find it valuable to have access to your materials? Do you think staff members would find it valuable to have access to your materials?
Image	What are participating lecturers' perceptions of the value of these re-	Lecturers are concerned about the quality of potential OERs.	Are you concerned that your material will come under criticism if made openly available?

	worked materials and the re-working process itself?		
Complexity	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers have partial/minimal knowledge of copyright and licensing issues.	Did you have prior knowledge of open licensing before the project began? Do you feel that you now have a better understanding of intellectual property as regards UCT's approach to educational materials?
Observability	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers do not see sharing OERs as career-enhancing.	Do you believe sharing your teaching materials as OERs will have positive effects in your career development?
Homophily – Experience	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	More experienced students, particularly postgraduate students, are more likely to successfully Acquire materials for Adaptation.	Were you more comfortable contributing materials to postgraduate students, or was their seniority not significant?
Homophily – Discipline	What do the contributing lecturers identify as the key factors in their willingness to engage in OER adaptation? [RQ2]	Lecturers are more comfortable contributing materials to student adapters within their discipline.	Were you more comfortable contributing materials to students within your discipline, or was their discipline not significant?
Trialability	What do the contributing lecturers identify as the key factors in their willingness	No assumption.	Did the experience of working with your student adapter encourage you to collaborate with senior students in the future?



	to engage in OER adaptation? [RQ2]		
<b>Questions specific to students</b>			
Compatibility – Practice	What do student adapters identify as the key factors in lecturers’ willingness to engage in OER adaptation? [RQ1]	Lecturers have heard of Open Education, and have varying degrees of understanding.	What percentage of lecturers had some prior knowledge of Openness before your meetings?
Relative Advantage	What do student adapters identify as the key factors in lecturers’ willingness to engage in OER adaptation? [RQ1]	Lecturers want to engage their own students with their teaching materials; some are interested in a wider audience.	Who do you think lecturers want to engage with their materials? Their own students, students at other institutions, UCT staff, staff at other institutions, or members of the wider community?
Complexity – IP Management	What do student adapters identify as the key factors in lecturers’ willingness to engage in OER adaptation? [RQ1]	Lecturers do not have detailed knowledge about copyright/ licensing.	How did you introduce the concept of open licensing to lecturers? Do you feel you enhanced lecturer knowledge about copyright and open licensing? What licenses did lecturers default to, and how did you convince them to adopt the final licenses?
Compatibility – Practice	What do student adapters identify as the key factors in lecturers’ willingness to engage in OER adaptation? [RQ1]	Lecturers do not share teaching materials openly, though they may engage in limited peer-to-peer sharing.	To the best of your knowledge, were the lecturers you worked engaged in sharing teaching materials openly before the project?
Compatibility – Time	What do student adapters identify as the key factors in lecturers’ willingness to	A small category of early adopters/early majority would have	Do you believe the lecturers you worked with would have undertaken the adaptation work if they had no students to support

	engage in OER adaptation? [RQ1]	undertaken adaptation work.	them? What would you attribute this lack of adaptation work to? (lack of knowledge of open, lack of skills, lack of time/energy)
Complexity	What do student adapters identify as the key factors in lecturers' willingness to engage in OER adaptation? [RQ1]	Students remove content that doesn't translate into online context.	As part of your adaptation work you made changes to the materials provided by lecturers. How did you communicate these changes to lecturers, and how did they respond? How did you negotiate any controversial changes?
Homophily – Experience	What do student adapters identify as the key factors in lecturers' willingness to engage in OER adaptation? [RQ1]	More experienced students, particularly postgraduate students, are more likely to successfully Acquire materials for Adaptation.	Do you feel that your status as a postgraduate student influenced your success in Acquiring materials for Adaptation?
Homophily – Discipline	What do student adapters identify as the key factors in lecturers' willingness to engage in OER adaptation? [RQ1]	Students are more comfortable Acquiring materials from lecturers within their discipline.	Did you find it easier to Acquire materials from lecturers within your department or faculty compared, or was your discipline insignificant during Acquisition?
Resultant demonstrability	What do student adapters identify as the key factors in lecturers' willingness to engage in OER adaptation? [RQ1]	Most lecturers are not interested in feedback or ratings of their materials.	Did lecturers ask to see their completed OERs on the institutional repository? Did any of them ask about metrics, rankings or other quantitative assessments?
Compatibility - Technical	What do student adapters identify as the key factors in lecturers' willingness to	Lecturers with greater engagement in online education are more likely to offer	Were the lecturers you approached active users of online educational spaces, such as Vula or Academia.edu?

	engage in OER adaptation? [RQ1]	materials for Adaptation.	
Image	What do student adapters identify as the key factors in lecturers' willingness to engage in OER adaptation? [RQ1]	Lecturers are concerned about the quality of potential OERs.	What were some of the fears or concerns given by lecturers when adapting their materials?