Chapter 04. Framework to understand postgraduate students 'adaption of academics' teaching materials as OER

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ABSTRACT

This chapter addresses a way of responding to one of the key challenges of OER contribution, namely academics' lack of time to re-purpose teaching materials originally intended for campus-based face-to-face lectures as stand-alone Open Educational Resources (OER). It describes how masters' students, tutors and interns at the University of Cape Town have been engaged to support the innovative practice of adapting academics' existing teaching materials into OER.

COLEARNING OBJECTIVES

This paper identifies that there are relatively few studies that have investigated the role of postgraduate students in the OER creation process, even though this process may be happening in practice. Moreover it suggests that there is a lack of information about why postgraduate students are motivated to assist their lecturers to adapt materials as OER. It uses Rogers' (1983; 1995) Diffusion of Innovation theory and specifically his theory of Perceived Attributes and its extension by Moore and Benbasat (1991) as a framework for understanding these postgraduate students' willingness to participate in this innovative practice.

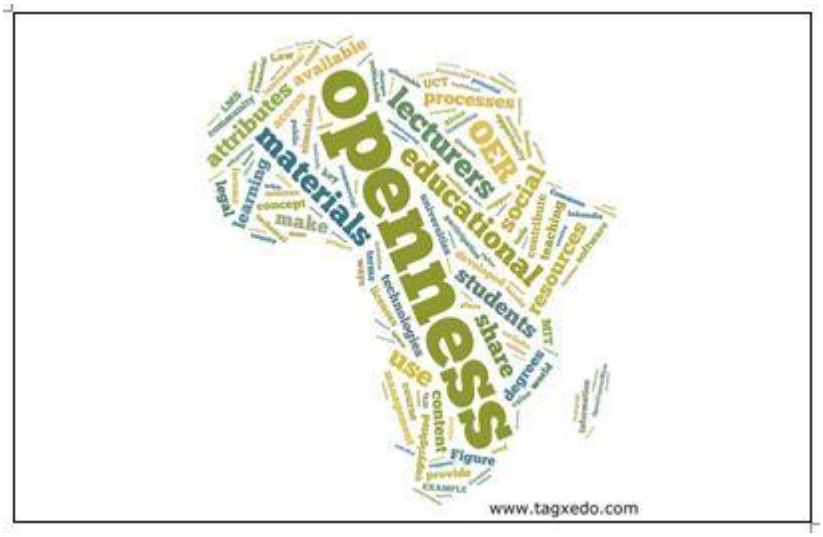
REUSABILITY

This chapter can by be reused by those who are grappling with ways to encourage and support academics to contribute their teaching materials originally used in face-to-face lectures as publicly available OER. It can also be used by those who might want to appoint postgraduates as OER assistants to academics and help them identify the key attributes and factors that seem to influence OER adoption by postgraduate students.

KEYWORDS

Open Educational Resources (OER), teaching materials, postgraduate students

1- OPENING WORDS



Title: Openness in Africa Wordle
Author: Centre for Educational Technology, University of Cape Town
Source: http://www.flickr.com/photos/openuct/5709731942/in/set-72157625390081414
Description: image created through http://www.tagxedo.com
Objectives: Reflect on new ways of creating educational content which require some extra work or new processes on the part of the author.
License: Creative Commons (CC BY SA)

2- INTRODUCTION

Over a decade ago, institutions such as MIT (Abelson & Long, 2008), Rice University (Baraniuk, 2008) followed by the Open University (Gourley & Lane, 2009), entered the open educational resources (OER) movement by making a selection of their teaching materials available to the general public. MIT provided additional instructional design support to their lecturers and the Open University continued their usual more team-based development. Not all academics wanting to share their materials as OER are privileged to have dedicated support from an educational technology and curriculum team and need to find alternative support, as a number of academics did at the University of Cape Town.

Like other institutions (Lee et al., 2008), UCT had to contend with challenges in eliciting teaching materials from academics often too busy to re-purpose their original teaching materials intended for campus-based face-to-face lectures as stand-alone OER for use by anyone in the world. One of the ways in which academics may be assisted to contribute a selection of their teaching and learning materials as OER is to have Masters' students, tutors and interns, collectively referred to as postgraduate students in this paper, assist them in this process.

This innovative process has been implemented by the University of Michigan (Kleymeer, Kleinman & Hanss, 2010) and has been followed, at least to some extent, by the University of Cape Town. There is currently little published research on how postgraduate students or interns can assist in the process of creating OER from face-to-face lecture and tutorial materials or why they would be motivated to

participate in this OER creation and/or adaption process. Using Roger's Theory of Perceived Attributes (1983; 1995) and its extension by Moore and Benbasat (1991) as a conceptual framework, this paper identifies the key attributes that seem to underpin this innovative practice and provides a potential list of factors for future OER adoption research.

3- OER CREATION PROCESS

Institutions such as MIT provided assistance to their academic staff that unburdened them from technical production chores (Abelson & Long, 2008), while the Open University "embedded the development and use of OERs within all [their] existing activities" (Lane, 2008: 10). Other institutions such as Carnegie Mellon University develop materials by multidisciplinary teams and their OER are specifically not collections of material created by individual faculty to support traditional instruction (Thille & Smith, 2011). These initiatives showcase the value of professional support staff or team development in the OER creation process. However, not all universities have the funding to provide professional technical and curriculum support for OER or the culture of team materials development.

The University of Michigan opted to use senior students to support academics in adapting existing teaching materials to be shared as OER, in a process they termed dScribe (Kleymeer, et al. 2010). The dScribe process, which is short for 'digital and distributed scribes', is a participatory and collaborative model for creating open content. The students are responsible for much of the groundwork involved with identifying potential copyright issues, sourcing alternatives or recreating problematic materials, formatting materials for consumption on the web and adjusting the materials to suit a broader audience.

Before the creation of the University of Cape Town's OpenContent directory and its launch in February 2010 (Hodgkinson-Williams 2009; Hodgkinson-Williams, Paskevicius, Donnelly, Czerniewicz & Lee-Pan, in press), the team at the Centre for Educational Technology engaged directly with the OER team at the University of Michigan. The CET team subsequently adopted a number of the University of Michigan's OER strategies, including the use of postgraduate students to assist academics to make a selection of their teaching materials, initially intended to support traditional face-to-face instruction, available to a broader audience.

Apart from some reflections by Kleymeer, et al. (2010), there seem to be few studies that have investigated the role of postgraduate students in the OER creation process. Moreover, there seems to be a lack of information about why postgraduate students are motivated to participate in this innovative practice. A way of understanding students' willingness to engage with OER can be analysed using the theoretical framework of Rogers' (1995) diffusion of innovation theory and specifically his theory of perceived attributes and its extension by Moore and Benbasat (1991).

4- THEORY OF PERCEIVED ATTRIBUTES

In his work on technological innovations, Rogers (1983; 1995) identified five characteristics or attributes of an innovation that are central to its acceptance. An innovation in his view can be "an idea, a practice or an object" (Rogers, 1995: 35). In this instance OER can be construed as an idea, a practice and an object. The five characteristics that Rogers identifies as having a key influence on the acceptance or

adoption of an innovation are: relative advantage; compatibility, complexity, trialability and observability (1995).

1. **'Relative advantage':** it is defined as the "degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 1995: 212). So a relative advantage of OER is the degree to which sharing teaching and learning resources is perceived as being a better idea than not sharing materials beyond the particular group of students for which they were initially intended.
2. **'Compatibility':** Rogers defines 'compatibility' as the "degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters" (1995: 224). In the case of OER, compatibility can be understood to be the degree to which adopters' dispositions to share teaching materials are consistent with their usual beliefs and values. As Perkins points out: "the producers of OER materials are also adopters, as they must commit to a system of content production, storage, and dissemination that is likely quite a bit different than models with which they are already familiar" (2011: 62).
3. **'Complexity':** it is described as the "degree to which an innovation is perceived as relatively difficult to understand and use" (Rogers, 1995: 242). With respect to OER, complexity can be interpreted as the extent to which creating, reusing, re-mixing open materials is complicated to comprehend and to do. In other words the simpler the OER process is the higher the likely rate of the adoption will be.
4. **'Trialability':** it is a concept Rogers used to describe the "degree to which an innovation may be experimented with on a limited basis" (1995: 243). Applied to OER, the theory suggests that if it is possible to experiment with OER before committing to it, it could be easier for contributors to decide to adopt or reject this new practice.
5. **'Observability':** Rogers defines as the "degree to which the results of an innovation are visible to others" (1995: 244). In relation to OER, the easier it is for contributors to see the results of sharing a selection of teaching materials openly for reuse by others, the more likely they are to contribute to the OER initiative.

Moore and Benbasat's extension of Rogers' Theory of Perceived Attributes

In their work on developing an instrument to measure the adoption of an information technology innovation, Moore and Benbasat (1991) identified two additional constructs that were thought to indicate individuals' decisions to adopt a new innovation. The first attribute, **'image'**, was 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, 1991:195). The second addition was the construct **'voluntariness'**, which they defined as the "degree to which the use of the innovation is perceived as being voluntary or of free will" (Moore & Benbasat, 1991: 195). The third change they made was changing the term 'complexity' to the more positively phrased '**ease-of-use'** as an alternative way of understanding why complex innovations are not easy to adopt. The fourth change was the unravelling of the concept of 'observability' into two distinct constructs, 'result demonstrability' and 'visibility'. The term **'result demonstrability'** was understood to reflect the "ability to measure, observe and communicate the results of using the innovation" (Moore & Benbasat, 1991:203), while the term **'visibility'** focuses on the degree to which the results of an innovation are observable to others.

Moore and Benbasat's extension of Rogers' Theory of Perceived Attributes
• Voluntariness • Image • Relative advantage • Compatibility • Complexity • Ease of use • Observability • Result demonstrability • Visibility • Trialability

Figure 1: Conceptual framework for OER adoption
Adapted from Rogers (1995) and Moore & Benbasat (1991: 215)

Figure 1 visually compares Rogers' theory and Moore and Benbasat's extension of Rogers' Theory of Perceived Attributes illustrating the new constructs (1 and 2), the rewording of a construct (5) and the division of one construct into two separate constructs (6 & 7).

5- METHODOLOGY

This case study attempts to interrogate the "particularity and complexity" (Stake, 1995: xi) of why and how postgraduate students (Table 1) at UCT embraced the innovative practice of adapting academics' existing teaching materials as OER. To provide an overview of the different types of engagement with academics two different groups of postgraduate students were interviewed. The first three were appointed by their lecturer who had been granted a small grant to adapt existing teaching and learning materials already available on the department's website, but not yet appropriately licensed or free of embedded copyrighted materials. The second group was employed in either one of two OER projects at UCT. The first group of students was funded by the Shuttleworth Foundation (OER UCT Project) and the second group by an inter-institutional project (Health OER Project) which was funded by the Hewlett Foundation. All six postgraduate students were either current Masters' students or had recently completed their Masters' degrees.

St.	Qualifications	Year	Appointment by	Role
1	MSc - current	2nd	Department	Demonstrator
2	MSc - current	3rd	Department	Demonstrator
3	MSc - completed	-	Department	Tutor
4	Master of Laws - completed	-	UCT OER Project	Intern
5	Masters in Environmental & Geographical Science - completed	1st	Health OER project	Graduate assistant
6	Masters ICTs in Education - current	3rd	UCT OER Project	Graduate assistant

Table 1: Graduate student and intern demographic details

Semi-structured interviews were used to elicit responses from five students and each hour-long interview was transcribed and sent back to the respondents for member-checking (Maxwell, 2008). One student completed an emailed questionnaire instead of being interviewed. Students were sent the questions prior to the interview and one student decided to complete the questions in an email and still participate in the interview. Questions for clarification were sent via follow-up emails. A process of thematic coding (LeCompte, 2000) was applied to identify the emergent ideas and categorise them in relation to the conceptual framework described above.

6- FINDINGS

The findings are discussed in the order of the attributes that emerged most frequently from the postgraduate students' responses.

6.1 Compatibility

Based on a thematic analysis of the interviews, most of the comments centred around OER being compatible with departments', academics' and postgraduates' existing values, policies and practices of sharing.

The students' commented upon the influence of departmental policy and culture on sharing of teaching material generally noting that it has been common practice in their department to have materials available on a departmental web server. It was further noted that nearly the whole department had made their materials available this way, except for two academics who were no longer lecturing to undergraduate students. A number of academics had taken sharing even further by setting up their own academic sites where they could share research and teaching materials. This allowed each academic a personal space on the web where they could share a range of their materials. The students further noted that one lecturer in the department had developed his own online textbook that they perceived as being really well organised and designed '***quite beautifully and clearly refined over many years'.***

These open policies encouraged newer initiatives, for example, a series of videos produced by a specific group of academics in the department to assist undergraduate students with specific technical procedures in laboratory sessions. The postgraduate students reflected that having these videos in advance of the laboratory sessions enabled undergraduate students to follow the processes more closely during the lab time, and not be caught up in technical procedural issues during the lab session. The postgraduate students further commented upon the added flexibility for the undergraduate students of being able to access video recordings whenever needed, the ability to replay any specific part of the video and the fact that they could share and rate the videos using the popular video sharing website, YouTube.

More importantly for this study, it was clear that assisting academics to share some of their teaching materials as OER was tapping into altruistic dispositions that the postgraduate assistants displayed in their own academic and personal activities. Sharing seemed to be self-evident to these postgraduate students, as Student 4 reflected: ***I mean the thing is, for me it's kind of obvious, like for everybody else it's not obvious to share or not logical to share***. Student 2 has put this sentiment into practice by being part of online groups such as Aardvark that voluntarily respond to questions posted online. This particular student further commented that he enjoys linking to university

sites to help answer other peoples' questions as it is ***'part of [his] campaign***. This comment certainly reflects the student's deeply held value of sharing which was again revealed in his tutoring work with other students. Student 2 explained that he had been producing his own diagrams rather than copying diagrams from textbooks so that these could be freely used by the undergraduate students in his tutor group as well as being available for others to use. Student 4 likewise displayed her willingness to share by adapting an Open Source Software programme to create a free note-taking program for students in her International Law tutor group.

This disposition to share with others was further illustrated by Student 2's contribution to a range of activities both within the university (e.g. Senate and the University Strategic Forum) and community projects (e.g. the Council for Assisting Refugee Academics). Likewise Student 4 described her work with the high school and primary schools in the local Cape Town community as well as work with the Students' Health and Welfare Centres Organisation (SHAWCO) which is a student-run NGO based at the University of Cape Town. In her capacity as a lawyer, she has cleared the copyright of 32 books that SHAWCO plans to share with schools on a national scale. She has done this despite peer pressure from her law colleagues who see her as '***a Judas'*** as she endeavours to adopt alternative intellectual property mechanisms such as Creative Commons, while her colleagues are bent on pursing copyright infringement.

Apart from contributing OER or Open Source software, the postgraduate students also revealed that they used OER as part of their own research work as undergraduates and particularly as they started tutoring and then lecturing. One student commented that he really valued evaluating presentations from other academics noting different ways in which they found to explain similar concepts to those he was hoping to put across students in his tutor group. Clearly his own experience as a novice tutor and later as a lecturer sensitized him to the value of OER and encouraged him to share materials that might '***serve some of those roles for other people'.***

Although this disposition to share was evident among the postgraduate students, not all of them have previously contributed materials or software, However, they were all clearly very familiar with social media such as Facebook, YouTube, LinkedIn, SlideShare and Flickr.

The postgraduate students also cautioned that a disposition to share might not be sufficient to motivate other postgraduates to assist academics to adapt OER. They suggested that editing existing OER for academics definitely needs to be consistent with postgraduates' area of interest. Furthermore the postgraduate students felt that not all student tutors would necessarily want to get involved in OER adaptation unless they were specifically interested in the education of the discipline. In order to motivate other postgraduate students to become OER assistants, the postgraduate students felt that the process could be linked to a credit-bearing activity such as a course assignment, a research paper or even a thesis.

Overall the compatibility with policies in the department and the students' dispositions, prior experience and interest in the education of the discipline is a key factor in whether the post graduates will be useful assistants to academics wanting to share a selection of their teaching materials as OER. However if compatibility with existing beliefs, current practices or current needs was not sufficient, there may be ways

of encouraging postgraduate students to become OER assistants (or dScribes) by offering some kind of credit-bearing benefit.

6.2 Relative advantage

The second most frequently occurring theme related to the construct of 'relative advantage. One of the key issues that the students identified was the advantage of having a centralised system for organising OER from UCT, rather than the current de-centralised approach where one has to trawl through each departmental website to see what is available to the public, if anything at all.

The postgraduate students noted that for those external to the department the availability of course materials online can serve as a public relations or marketing role. Having some examples of course materials used in the department can give potential students, collaborators or other external bodies an idea of the type of content taught in the department.

One postgraduate student subsequently pointed out that a key advantage of this centralised system is that resources can be better indexed for searching. The postgraduate students noted that because of the potentially increased visibility of the materials in the centralised system, some of the course materials had been cleaned up and converted from closed formats such as PDF images of text to more searchable formats such as HTML.

Another advantage highlighted they is it that the presence of specific licencing on OER makes it much easier for people to understand under what conditions materials can be reused by others. The postgrad students explained that once people become familiar with the Creative Commons licensing model it becomes very easy to recognize the terms and conditions of the license. One student noted '***that it's now immediately clear to them that they can use it under certain conditions'*** (Student 1).

Cost reduction is often touted as a potential advantage of OER (Daniel, Kanwar & Uvalic-Trumbic, 2006), but the postgraduate students noted some additional costs as well as some reduced costs. A couple of the students saw the need for funds for graphic designing, web designing and converting word documents to HTML (Student 4); for dScribe assistants or OER project assistants (Student 5), whereas Student 1 responded: '***I guess if the server loads get ridiculous, I don't really see any other costs'***.

Students displayed a quite broad-ranging set of relative advantages of OER including having a central system for storage that could allow for easier searching and act as a marketing mechanism to attract new students. Clearly indicated Creative Commons licenses was seen as an unambiguous relative advantage, whereas the potential cost reduction advantage was not.

6.3 Ease-of-use

The third most frequently occurring theme related to 'ease of use'. The relative advantage of having the postgraduate students assist academics re-work materials as OER was bolstered by the students' familiarity with the 'dScribe' process, their ability to find alternative images, their technical ability and their knowledge of alternative intellectual property systems such as Creative Commons.

The actual reviewing process that students undertook to identity third party copyright materials seemed to be quite easy and straightforward. Students developed a workflow to check for unacknowledged text or images or for excluding unnecessary images.

The scheme I [followed], was pretty straightforward, notepad file open, scan through, and reference page numbers where I found issues … Then we were sensitive to certain things like when the image itself didn't really have any bearing on the content … it seemed like the review process was not complicated (Student 1).

Finding the source of an online image or sourcing an alternative image was also a fairly simple process. When encountering an un-cited image within the coursework, the students would use Google Reverse Image search or TinEye which allows one to submit the image and see where else it has been used on the web. In a number of cases the image could be found in Wikipedia and then the citation could be attached. Furthermore, the postgraduate students mentioned Wikipedia and the Wikimedia commons as excellent sources to find media files for famous scholars or scientific phenomenon as all of the files are available for reuse.

The postgraduate students had differing technical skills which ranged from the most basic HTML in the universe to the ability to design HTML pages to host and share content online which could contextualize the resources in the collection. They were sufficiently computer literate to undertake most of the dScribing activities without help, but they were able to call upon colleagues in the Centre for Educational Technology if they got stuck. The postgrad students also admitted that they were often more computer literate than the academics and particularly in relation to social media.

Likewise, even though the students possessed more extensive knowledge of Creative Commons than the academics, some students were new comers to Creative Commons and one was a lawyer who had specialised in copyright law. This student noted that she '***wasn't even aware of the Creative Commons license before I came onto this project … although I ha[d] seen it used before on Flickr'*** (Student 5). Evidently open content licensing models were not even mentioned in the law program this student had studied, which points to more extensive problems in designing curriculum to support these new open practices.

Another factor that eased the process of OER adaption for the students is that they had the time to undertake this work which the academics did not. The respondents noted that if UCT had tasked the lecturers with redesigning their material they would not have completed it. One student noted: ***'… we recognize it takes work for the academics to create new content, whereas through this process it did not require that much work from the academics side*** (Student 3). The partnership between student and lecturer enabled the conversion of standalone coursework to OER by best utilizing the time and skill of each of the partners.

6.4 Image

The fourth most frequently occurring theme related to what Moore and Benbasat (1991) refer to as 'Image'. The social approval from being part of the OER movement was influenced by the degree to which UCT's image was enhanced and the degree to which their departments' profiles were raised.

Releasing materials as OER was also seen by the postgraduates as being valuable to the university's social engagement role as Student 1 remarked: ***'there is the popular line that this raised the profile of the university and became part of our corporate branding, but it also serves a social outreach and social responsiveness role for the department and for us'.***

In terms of the department students saw the value of OER in raising the profile of the departments' teaching and research activities. The department already enjoys a great reputation in the community and gave the opportunity to share all of the great resources that had been developed over years of teaching. One student noted that a number of academics in the department had been teaching for years and had ***'really refined their teaching methods'.***

As individual students they saw assisting with OER development as a good thing to be a part of as: ***it looks good on your CV that always motivates*** people (Student 2). Furthermore one student posed a very thoughtful question: ***[As] the internet facilitates the sharing of ideas and research which may allow for the quicker dissemination of knowledge and possibilities for global collaboration***, ***why shouldn't we be doing this?*** (Student 6).

6.5 Voluntariness

Prior to the empirical study, it was assumed that the voluntary nature of OER adaptation would likely be the most commonly cited attribute by students involved in assisting academics. However, the theme of 'voluntariness' appeared fifth in this particular study.

When asked if payment for the job of editing academics' existing materials was necessary, the postgraduates generally were happy to participate even without being paid. Remarkably, the students remarked: '***I think we could have done it without being paid. Being paid was just a nice bonus' (Student 1); and 'we may have done it anyway, but it was good to get paid in order to help prioritize (Student 2).***

One student suggested that OER development should be part of the options student can select for community service projects: ***I definitely think it is something we could offer … because in my final year, you cannot graduate from Law if you didn't do community service. I don't see why this can't be on the list, this thing is so big like building a house, important … they should put that on the list (Student 4).*** Involvement in OER production here is suggested as a means of completing a students' community service requirement.

6.6 Visibility

Moore and Benbasat (1991) concept of 'visibility' did not emerge as frequently as originally anticipated. The visibility of the OER directory, UCT OpenContent was once mentioned as a perceptible physical presence: ***For many academics, there would have been no place previously where they could share teaching resources they were really proud of. So the project provided avenues for academics to share the content they created, providing visibility for themselves and the university*** (Student 6). Comments about visibility were embedded in responses from the postgraduates about the relative advantage of OER.

6.7 Result demonstrability

Although the ability to measure, observe and communicate the results of sharing materials as OER is a potential benefit, only one comment directly referred to this attribute: ***As one can … track when social media is accessed, one can develop new metrics for measuring impact and engagement with the wider community*** (Student 6).

6.8 Trialability

The concept of trialability was not strong in this particular study despite that fact that academics and postgraduates have the control over uploading and removing materials from UCT OpenContent, or other cloud-based platform and are currently experimenting with which platform would suit their OER best. Student 3's comment reveals that as a department, they are experimenting with potential ways in which to host OER:

Yea there will be a link on the [departmental] web site. So perhaps what I can do is also put the links on the OpenContent. But we are sort of in the middle of trying to decide whether to post them locally or put them on YouTube. YouTube has its advantages and we cannot stream video locally. So we will probably offer both local download and YouTube (Student 3).

7- DISCUSSION

The willingness of students to adopt the innovative practice of assisting academics to edit some of their existing materials as OER seems to be related to a number of inter-dependent factors. The key seems to be the compatibility of the culture of sharing evident in the department within which the students undertake the work and the altruistic dispositions and activities by the academic and postgraduate students. From the relative advantages that the students mention, the students certainly perceive the OER innovation as being a good idea as long as it is adequately funded. The students' perceive the overall process of assisting academics with reviewing existing materials, finding alternative images, using a range of software and selecting appropriate Creative Commons licenses as a fairly uncomplicated and manageable procedure. Although the students see OER development as enhancing the institutions' image and raising the departments' profiles, they are generally not seeking social affirmation individually. They are willing to participate voluntarily in OER development, but are aware that this cannot be done without some long term funding or as part of a community service project. The final three attributes, 'visibility' of the OER platform; 'result demonstrability' of the use of these open materials; and 'trialability' or control over the OER development and uploading process seem to have the least influence over whether students will participate in helping academics re-work teaching materials into OER. These attributes are summarised in Table 2.

Attributes	OER adoption factors suggested by this study
Compatibility	Departmental policy on sharing Departmental open initiatives Departmental website with open materials Academics' personal websites with shareable materials Academics' online textbooks Students' community engagement activity Students' online research activities Students' engagement with social media Students' interest in education in the OER content
Relative advantage	Institutional OER directory and/or repository Indexing system or meta-tagging system Licencing system that indicates reuse conditions Funds available for student assistance and resources
Ease of use	Familiarity with the 'dScribe' process Ability to find alternative images Ability to use a range of software Knowledge of Creative Commons licensing
Image	Perception that institution's image will be enhanced Perception that department's profile will be raised Perception that OER development enhances a CV
Voluntariness	Willing to participate without payment Developing of OER as part of community service project
Visibility	Physical presence of OER platform
Result demonstrability	Alternative matrices for measuring use of OER
Trialability	Control of OER uploading

Table 2: The key attributes and factors influencing OER adoption by postgraduate students

8- COLEARNING ACTIVITY

Author: Centre for Educational Technology, University of Cape TownTitle: Openness in Africa Wordle

Source: http://presentations.ocwconsortium.org/uk2012_364_from_project_to_mainstream/
Description:video produced by OCW, powered by VIIDEA
Objectives: Reflect on new ways of creating educational content which require some extra work or new processes on the part of the author.
License: Creative Commons (CC BY SA)

Based on the video above, reflect and discuss about these following questions:

1. Could this model of pairing educators and students as co-creators of open educational content serve as a model for institutions around the world?
2. What issues can you imagine arising as a result of having student tutors assist in 'opening up' academics teaching materials?

9. LEARNED or FUTURE WORK

- Postgraduate students whose beliefs are compatible with sharing are likely to be good candidates to assist busy academics re-purpose teaching materials originally intended for campus-based face-to-face lectures as stand-alone Open Educational Resources (OER). These beliefs are usually evident from the other university or community based activities of an altruistic nature in which the students are already involved.
- Postgraduate students are generally more technically savvy than the academics and have a far more sophisticated understanding of various social media and internet tools than the academics.
- Postgraduate students, like academics, are unlikely to have sufficient knowledge of alternative intellectual property mechanisms such as Creative Commons and will need specific training before they are involved as OER assistants (or dScribes) and on-going support during the process of OER adaptation.
- Future research will need to investigate the veracity of the factors highlighted in this paper as this study drew on a very small sample.

10. CONCLUSION

While academics may be keen to share teaching materials originally intended for campus-based face-to-face lectures as stand-alone Open Educational Resources (OER), they do support to do so. If the institution and/or individual academics do not have access to dedicated support from an educational technology and curriculum team, alternative support will need to be found.

This paper has suggested that masters' students, tutors and interns can be engaged to support the innovative practice of adapting academics' existing teaching materials into OER. As this OER adaption activity is usually voluntary or at least minimally funded, it is important to understand why postgraduate students would undertake this kind of innovative work.

Rogers' (1995) diffusion of innovation theory and specifically his theory of perceived attributes and its extension by Moore and Benbasat (1991) was used as a way of understanding students' willingness to engage with OER. The largest influence on postgraduate students being willing to assist busy academics to adapt their existing teaching materials into OER seems to be related to the compatibility of the culture of sharing evident in the department within which the students undertake the work and the altruistic dispositions and activities by the academic and postgraduate students in local and online communities.

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