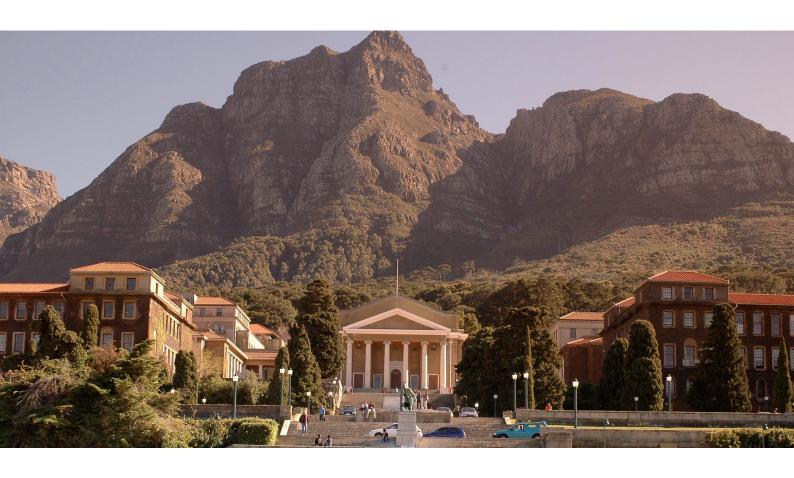


# Growing an Institutional Health OER Initiative

A Case Study of the University of Cape Town





# Background

The University of Cape Town (UCT) is South Africa's oldest university, and one of the continent's leading teaching and research institutions. Founded in 1829 as the South African College, it now comprises six faculties, one of which is the Faculty of Health Sciences (FHS).

Originally established as the Faculty of Medicine in 1912, the FHS has grown to comprise 11 departments spread across four schools: Adult Clinical Medicine, Child and Adolescent Health, Health and Rehabilitation Sciences, and Public Health and Family Medicine. The FHS has a sprawling campus, extending from its main teaching hospitals – Groote Schuur and Red Cross Children's hospitals in Cape Town – to a range of secondary hospitals and primary healthcare clinics throughout the Cape Peninsula and in rural areas in the South Cape Karoo, the Boland, and the West Coast Winelands.

In 2011, there were more postgraduate than undergraduate students. In total, there were 1,825 undergraduates studying towards the Bachelor of Medicine, Bachelor of Surgery, and qualifications in health and rehabilitation sciences. In the same year, there were 1,851 postgraduates, including those studying towards diplomas and doctorates.

The UCT FHS is one of four African institutional faculties involved in a pilot project to develop health Open Educational Resources (OER). The other institutions in the health OER project are the College of Health Sciences (CHS) at the University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), and the University of the Western Cape (UWC) School of Public Health. The OER development activities of these institutions, which began in 2008, have been seeded with funding from the William and Flora Hewlett Foundation. The University of Michigan (U-M) and OER Africa, an initiative of the South African Institute for Distance Education (Saide), co-manage the Hewlett Foundation grants and provide technical support to the four institutions.

#### WHAT ARE OPEN EDUCATIONAL RESOURCES?

Open Educational Resources (OER) are educational materials and resources offered freely and openly for anyone to use, and, under some licences, to adapt, copy, and redistribute. OER can include course syllabi, presentation slides, image collections, animations, videos, textbooks, research papers, and self-assessments.



Professor Marian Jacobs

# Early supporters of OER

When the UCT health OER initiative began three years ago, FHS Dean Professor Marian Jacobs entrusted oversight of the project to the educational technology manager, Greg Doyle. Since then, Mr Doyle has been coordinating project activities in the faculty, working with a team of five part-time staff, all masters and PhD students in various disciplines at UCT. Two of them, Matumo Ramafikeng and Veronica Mitchell, have released their own teaching resources as OER. Ms Ramafikeng, currently a PhD student in the School of Public Health and Family Medicine, Division of Occupational Therapy, was lecturing in the School of Health and Rehabilitation Sciences when she developed her OER. Ms Mitchell is a part-time lecturer in the School of Public Health and Family Medicine.

Most production of OER in the faculty is from different units within the School of Public Health and Family Medicine. Two factors account for this phenomenon:

- Leadership of the school encourages open sharing, and leads by example. The directors of the School of Public Health, the Centre for Occupational and Environmental Health Research, and the Division of Family Medicine have all developed and released their teaching materials as OER.
- The notion of sharing teaching resources aligns strongly with the school's social responsiveness focus, which includes sharing research findings in a language accessible to non-academics. For example, the Health Economics Unit has appointed a communications officer to assist the unit in making research findings more accessible to the general public.

Most of the OER are based on existing lecture materials. Releasing material as OER is voluntary, and lecturers are free to decide whether they want to produce and share OER, and the conditions under which they want to license their resources.

Most of the time, when it comes to development of OER, it's a case of people showing interest. We have had conversations, workshops, seminars, and it's always that there are some people who are just interested – for some people, the whole idea of OER makes sense, but for some people it does not. We have not been able to convince everyone.

Greg Doyle, educational technology manager, FHS

This case study is the result of semi-structured interviews and email engagement with teaching and support staff involved in OER activities in the FHS and for the OpenContent Directory (web portal) at UCT. The contributors (listed at the end of this study) gave their consent for the author to use their names and direct quotations, and their words are included here verbatim. The case study describes the FHS experience with OER, locating it within the UCT OER context and highlighting strategic priorities, perceived benefits, achievements, challenges, production processes, lessons learned, future plans, and advice for others interested in creating their own institutional OER initiatives.



### **UCT OER context**

The FHS health OER project is one strand of the broader open education agenda at UCT. The project operates with part-time staff – two of whom have multiple roles as part-time lecturers, OER developers, and OER representatives who play an advocacy role within the faculty. An important approach is therefore to work collaboratively with other open education initiatives both within the university and beyond. At UCT, support for OER began through two Shuttleworth Foundation-funded projects: *Opening Scholarship*, which looked at all scholarly resources, established in 2007; and OER UCT, which led to the development and launch of the OpenContent Directory in February 2010.

The home of these projects is the Centre for Educational Technology (CET), a hybrid centre with an expert team of learning technologists, designers, teaching, and research staff and curriculum support specialists. CET is closely aligned with the FHS health OER project, which has benefited from the grants offered by CET to support lecturers in using technology for teaching, particularly as the last round of funding specifically targeted OER development. Under the auspices of OpenUCT, a cross-university initiative, the OpenContent Directory is moving into the next phase of growing the number of open teaching and learning resources it houses, and expanding the directory to include all UCT-generated shareable scholarly resources.

In relation to student engagement with OER, the university has arranged an access scheme that truly makes OER accessible to students. UCT, through the OpenContent initiative of CET, has managed to get a number of international OER websites white-listed. This means that students can access these sites freely without using up their monthly Internet quota, which is at times expended quickly because of access to video resources. These OER sites include OER Africa, U-M, Tufts University, Massachusetts Institute of Technology, and Johns Hopkins Bloomberg School of Public Health.

# Strategic priorities

The FHS OER activities support many of the university's key institutional strategic goals. According to its Strategic Plan 2010–14, UCT aims to make itself an intellectual meeting point and sought-after destination for scholars worldwide who have an interest in Africa's place in the world. Further, the university intends strengthening its international research profile through academic exchanges and partnerships worldwide, as well as disseminating research as widely as possible. Internationalization for UCT also entails engaging in socially responsive activities, including research and teaching to solve global challenges.

Some of the FHS health OER project activities respond directly to the goal of internationalization. The FHS health OER team conducted a survey to find out what relationships lecturers in the faculty have with colleagues at other universities. Survey data from the 26 responses received at the time of writing this case study suggest that the majority of collaborations are in Africa. The health OER team aims to use OER activities to strengthen these relationships.

The OER project for the Postgraduate Diploma in Occupational Health is illustrative of the role that OER has played in African collaboration. These resources were developed by lecturers in the occupational health and environmental health fields at UCT's School of Public Health and Family Medicine and the University of

KwaZulu-Natal, and have been shared with the University of Zimbabwe, University of Zambia, Muhimbili College of Health Sciences in Tanzania, and Eduardo Mondlane University in Mozambique. These institutions signed a memorandum of understanding with UCT, to reuse and adapt the resources, as part of the requirements of the Fogarty International Center joint grant with U-M for environmental and occupational health research and capacity building. This grant funded the development of these resources before they were updated and published under a Creative Commons licence.

By making high-quality, openly licensed health OER from UCT available to other higher education institutions, particularly those in Africa with limited capacity to produce their own high-quality multimedia content, the FHS is contributing to the development of healthcare professionals. This is in line with UCT's and the faculty's social responsiveness commitment.

Moreover, health OER produced at any of the other African institutions participating in this initiative might be pertinent to UCT. Examples include *Alcohol Problems: A health promotion approach guide*, developed at UWC, and *The Caesarean Section*, developed at UG.

Finally, publishing and sharing OER will expose the world to teaching practices at UCT in particular and in Africa in general, thus meeting the goal of international dissemination, as well as elevating the status of teaching resources from the continent.

This is an opportunity for us to get people to know about us in Africa – make practice known as much as possible. People can learn from Africa.

Matumo Ramafikeng, support staff and OER developer, FHS

### Perceived benefits of OER

Faculty who create OER and staff who support OER development in the FHS are motivated by various potential benefits, some of which are documented below.

### Improvement in the quality of resources

There is awareness among faculty that teaching materials shared under an open licence will be subject to far greater scrutiny than those created only for use within the relative privacy of the classroom. This realization has encouraged faculty to focus more on the overall quality of the finished OER.



You cannot take what you teach in your class and publish it as OER...there is the quality issue... just the awareness that, if you are going to create OER other people will look at your work and critique it, so you will put extra care into the materials.

Greg Doyle, educational technology manager, FHS

I reworked the lectures that I had given as I was aware of the reach [of materials] when published as OER. I was also worried about the original author of the theory seeing the work and so found myself checking and double-checking, taking more care, as I did not want the original author to come back to me and criticize me for not understanding his theory. Even with the format of presentation, I looked at Johns Hopkins School of Public Health and Open University materials to try and follow their format. I was aware my resource could be viewed internationally. I was more conscious of quality.

Matumo Ramafikeng, support staff and OER developer, FHS

### Increased visibility for the authors and their institutions

Building a good publishing profile is a critical aspect of being a lecturer at a university. Publishing in peer-reviewed journals increases a lecturer's visibility, as well as that of the institution. Creating OER can provide lecturers with another platform to gain visibility, akin to the exposure achieved through publishing in peer-reviewed journals. For example, Ms Ramafikeng's OER were translated and published in a Spanish journal, which was very encouraging to her and other faculty in the FHS.

OER publishing opens doors to some of us who are new in the academic field because the peer-reviewed journals are so strict with who they are taking and how you should write. But with OER it is as if the OER community appreciates you sharing. When the Spanish journal published my OER it was almost unheard of to get lecture materials being published in a journal, as usually it is a journal article that informs teaching.

Matumo Ramafikeng, support staff and OER developer, FHS



Besides the visibility that sharing OER gives to the individual lecturer who has produced them, it also promotes the institution. When individuals encounter OER produced by FHS lecturers, this may encourage them to study at UCT.

Everyone is taking OER in a different manner and in their own way. One obstetrician said they were doing it for branding – to say this is what we are doing at UCT and this is what you can get if you come to UCT.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

A sense of pride also comes from imagining that FHS OER are being accessed globally, and that students who do not know one another can be connected virtually through what they are being taught, if it is shared as OER.

Technology is moving forward, and the world is growing smaller. If, through OER, a...student in the US can be aware of what and how I am being taught in South Africa, that is very exciting to me.

Nthoesele Shoeshoe Letoao, dScribe and student, FHS



#### **Fostered collaboration**

Several of the OER developed in the FHS are co-authored, encouraging collegial collaboration in the development of teaching materials, both among FHS faculty and with those from other universities. Due to the different skills required in the production of OER, lecturers authored the materials and worked with other support staff with technical skills to add illustrations, package the completed OER, and host them on the faculty server. Those interviewed identified having a technical support team as a very important aspect in the transformation of teaching materials and their release as OER.

I worked with other people from the beginning because I did not understand what OER were, and I needed people to help me with that. I collaborated with other colleagues, so I had a team from the Centre for Educational Technology who were more experienced on OER issues, including on copyright. And then there is the technical team from health OER at UCT, who helped a lot with technical assistance and finding materials.

Matumo Ramafikeng, support staff and OER developer, FHS

We had to first develop the content. And Professor Myers got lecturers who were teaching on the course to provide the content and the visual materials. Then he enlisted the services of a materials developer to convert content and visuals into interactive content and package it as modules. Collaboration with other lecturers and commitment to OER helped. There was also collaboration with lecturers from the University of KwaZulu-Natal. Greg Doyle and his team have been very helpful, as well.

Mohamed Jeebhay, professor and associate director of occupational health, FHS

### **Development of teaching materials in various formats**

OER, though not synonymous with e-learning, are typically released digitally and sometimes have a strong multimedia component to their design, which can make them more dynamic than paper-based, printed teaching resources.

#### WHY IS OER NOT SYNONYMOUS WITH 'E-LEARNING'?

E-learning is delivery of education through technology. OER can be developed and shared in various formats including paper-based text, video, audio, and computer-based multimedia. Although OER can be shared in digital format, and in this regard can be used digitally to constitute part of e-learning, they can also be shared in their printed format, in hard copy.

Including multimedia features in their resources gives lecturers an opportunity to inject new life into teaching materials and to use OER to tackle teaching and learning challenges such as language barriers and poor concept formation.

We use case studies in our course, but I did not want to use paper cases, which are hypothetical, as we usually do. For these OER to go out to the world, I wanted real South African stories of real people for cases. I gave direction on what kind of stories I wanted, and the FHS health OER technical team went out and looked for these stories for me. They also helped with design of the web page. Students struggled with easy access to the information. Theories are written in complex English, and I wanted to make the content accessible. I think this was what was appealing to the Spanish journal that published the OER. I used everyday language.

Matumo Ramafikeng, support staff and OER developer, FHS

### Increased awareness of OER developed elsewhere

During the copyright clearance process, lecturers learned that there are useful sites that can be used to access OER to replace copyrighted content. The experience of finding useful content from these sources has made it clear to participants that a key part of the development process can include harnessing existing OER. There is growing awareness that, as much as OER developed by a lecturer can be shared with others, lecturers can also use and adapt OER developed elsewhere to develop their own materials. This offers potential time savings if existing OER are easily accessible.

Now I am a bit more aware that the materials I am using in my lectures are not necessarily new; it is not the first time it has been done. I am more interested in using the Internet to check to see what has been done so it saves me time, especially with new modules; for example, in the Health Promotion one where we are trying to come up with new ways of doing things. It gives me an idea of how others are doing it in the rest of the world. It makes me more conscious. Our students are more linked because of social networking and could be comparing notes without us knowing, so it is important for us to keep up. This will give us and our students more confidence about what we are doing.

Matumo Ramafikeng, OER support staff and OER developer, FHS

### **Changed lecturer-student relationships**

If OER are accessible to students, this aids and encourages independent learning by allowing students who need to go over materials at their own pace to do so repeatedly, privately, and without the embarrassment of being judged by others. It also allows lecturers to engage with students differently – by answering queries from students

who need the extra support rather than repeating information in the classroom. Lecturers involved in OER production and dissemination to students have noticed that they spend less time interacting with students in class and do not field queries from many students. Only a limited number of students ask questions for clarification. Although no systematic, empirical research has been conducted on the time savings associated with adoption of OER, lecturers indicated that their experience suggests positive gains.

OER relieves in teaching time in giving students time to read before the lecture. With the module being online, for me it is less time for the lecturer as students can go back to the resource if they want to understand better. They go back to the resource instead of asking us. This reduces the amount of time you have to take explaining and re-explaining.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

For previous cohorts, we had to be on standby if sections of our module were being taught, to field questions. This required that we had to be on standby on VULA [the UCT virtual learning environment], and this was demanding. It took more of our time. The blended way of doing things has created better balance – using OER with contact classes. Students are expected to do more independent study, but lecturers are accessible to them should they have queries regarding the materials. Students do not communicate as frequently as they did before materials were being taught online.

Mohamed Jeebhay, professor and associate director of occupational health, FHS

# Accomplishments

Over the past three years, the FHS OER team has supported faculty to participate in OER activities. The accomplishments of the health OER project include establishing a support team, advocating for OER, producing OER modules (including helping faculty and other staff develop expertise in copyright and open licensing), receiving recognition for their work from the larger OER community, distributing the OER, and opening their practice to others.

### **Established health OER support team**

The FHS OER support team is located within the FHS Education Development Unit (EDU). The team members, all of whom work only part-time in their OER support capacity, include an OER research assistant, a dScribe, and OER 'representatives.'

### WHAT IS dSCRIBE?

dScribe, a process created by U-M and adapted at UCT, is a participatory and collaborative model for creating open content. dScribes, short for digital and distributed scribes, are students, faculty, and other staff who work together to create content that is openly licensed and made freely available for other people to use. By distributing OER development tasks across a community of students, faculty, and other staff, costs are reduced as the effort and time required to develop and share OER are carried by a group of people.

The OER representatives were given this title because one of their many skills includes advocacy for OER within the FHS, where, drawing on their own experience of OER development, they engage with lecturers and convince them to share their teaching materials under an open licence.

Team members have adopted a responsive approach to faculty interest in OER. Professor Jacobs noted that the OER team had been thorough in creating awareness and excitement about OER across the faculty.

Without the constant support, reminders, affirmation, and facilitation from the FHS OER team, then perhaps we would be in a different place – all those little projects that existed may have remained at that level.

Marian Jacobs, dean, FHS

### **OER champions encouraged others to produce OER**

The OER representatives have been proactive, directly interacting with other staff and encouraging them to engage in OER production.

I have been raising the awareness of OER, sending emails to people, talking to them where I can, getting people to think about OER in their work and to develop a discourse of OER within the faculty. So, where I can, I go to people and explain to them what OER are, ask them what they have got to share, and ask them how we can help them. I have sent emails, but I find them ineffective. I find engaging with people face to face is more effective, particularly one-on-one. I did give a presentation a few weeks ago and there was some nice discussion afterwards; but really the one-to-one engagement I do I find useful. And I do find some people are beginning to 'bite' the concept.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

### **OER** representatives played a vital quality assurance role

The OER representatives have subject-matter expertise in health, so their role stretches beyond advocacy. It includes finding and building upon existing OER and, in some cases, doing preliminary quality checks on the OER before they are released publicly.

I have designed my lecture materials as open resources. I have acted as a liaison between the EDU, which facilitates our health OER here, and the School of Health and Rehabilitation Sciences. I was encouraging other people to publish their materials as OER and I was also finding existing OER for them to incorporate in their resources to use as is or remix and reuse.

Matumo Ramafikeng, support staff and OER developer, FHS

### Collaboratively developed and distributed multilingual Clinical Skills module

Professor Derek Hellenberg of the Division of Family Medicine in the School of Public Health and Family Medicine decided to develop a *Clinical Skills* DVD to support students in meeting the needs of some of the most marginalized of Cape Town's communities – urban poor communities whose primary language of communication is either isiXhosa or Afrikaans. No other South African university had such a multilingual resource. The Division of Family Medicine collaborated with the Department of Linguistics to ensure that, when the *Clinical Skills* DVD materials were translated from English into isiXhosa and Afrikaans, the integrity and intended meaning of the original materials would be retained. The Linguistics Department undertook an examination of the use of language in the medical profession before embarking on the work of translation. The *Clinical Skills* DVD was translated first into isiXhosa and then into Afrikaans. Health practitioners from across South Africa were invited to the launch of the multilingual DVD. Computer stations were provided to allow the materials to be showcased, and each participant received a complimentary copy of the DVD.

Professor Hellenberg had originally intended to release the DVD for sale. However, through the health OER initiative, he and the other authors were exposed to the Creative Commons licensing framework and its relevance to the FHS mission. They therefore agreed to license the DVD as OER. The University of Stellenbosch – also located in the Cape region – is now using these resources in its own training programmes.



Education should not be hidden...[OER] have been really rewarding!

Derek Hellenberg, head, Division of Family Medicine, FHS

### Put in place an OER development and production process

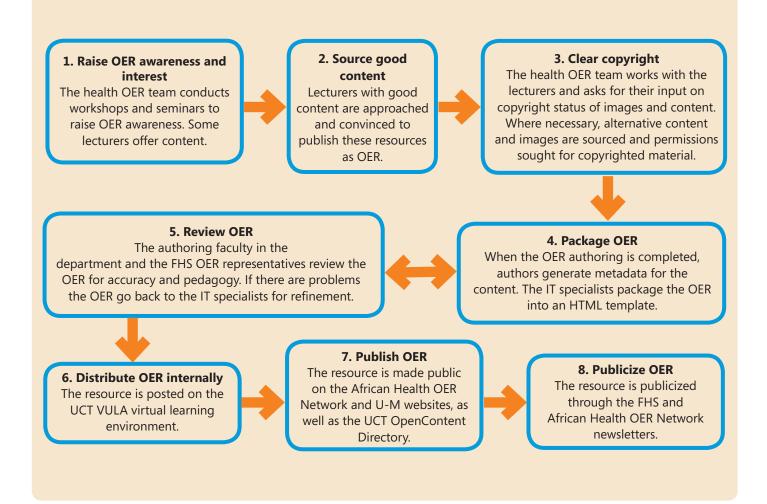
The FHS has published a valuable collection of OER. Other academics from UCT and elsewhere who have seen the FHS OER perceive them to be of a high quality. The high quality of the materials can partly be attributed to the fact that the materials have been created and are actively being used in the university for courses taught by the faculty who developed them.

The types of OER that have been created are substantial – whole courses and textbooks. It is not just PowerPoint [slides] that have been created.

Greg Doyle, educational technology manager, FHS

During the development of these materials, FHS staff first engage with lecturers during workshops that raise awareness of OER. The OER representatives do follow-up work, targeting specific lecturers for content that can be published as OER. The final published OER work is based on an iterative process of copyright clearance and quality checks between the lecturers and the FHS OER team. The lecturers also create the metadata for the resource. The following diagram reflects the FHS OER production process.

# **UCT FHS OER production process**



As more lecturers in the FHS publish their teaching materials as OER, this will strengthen the existing development and production models, providing more efficient methodologies to guide the OER publication process.

The [OER production] process is now flowing and passing the initial stages, and there are materials to use as a model

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

### WHAT ARE METADATA?

Metadata are the information that describes tenets of specific content, providing the user with an at-a-glance summary, while helping to make the content discoverable by search engines. In any published OER, the metadata could be words or phrases that describe the author of the content, when it was created, keywords about the content, and a summary.

### OCCUPATION FOCUSED

### CONCEPTUAL FRAMEWORKS

HOME • ADDITIONAL INFORMATION • LECTURES • CREDITS



Conceptual frameworks are the core concepts of occupational therapy thinking used in practice by occupational therapy students, therapists and scientists

This module offers a foundation of OT practice and understanding OT focused theories, in the training of 3rd year OT students. It is a continuation of what they have covered in 2nd year where they covered generic conceptual frameworks.

The OT focused conceptual frameworks focuses on human occupation and function. This module is therefore aimed at such users and occupational therapy training institutions who could make use of the information contained in this module.

To download the entire package as a zip file, click here

We would appreciate your feedback for this Open Educational Resource (OER), by completing this <u>form</u>. Alternatively, you can email us at <u>healthoer@ucl.ac.za</u>

The first edition of this material is avaible here.

### **LECTURES**

Introduction to Conceptual Frameworks

- 1. Model of Human Occupation
- 2. Occupational Adaptation Theory
- 3. The Person Environment Occupation Model
- 4. The Model of Creative Ability
- 5. The Kawa Model
- 6. Transformation through Occupation
- 7. Ecology of Human Performance
- 8. The Canadian Model of Occupation Performance



Conceptual Frameworks (Second Edition) by Matumo Ramafikeng, Health Sciences UCT, 2011
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### **Ensured wider dissemination of lecturers' practice**

Normally, when lecturers develop teaching materials for use in their classrooms, reach is very limited, as these materials are only used by those few students in the class. Lecturers can also get a chance to talk about their practice at conferences and seminars, but still this is restricted to people who attend these events. OER promotes the wider sharing of practice, and by the same token allow lecturers to access other lecturers' work.

We have a responsibility to take the knowledge we have and put it to the best use of people. OER allow us to do this. The variety of publications that has been produced empowers us to share practices and innovations in teaching. Staff members have the opportunity to use each other's work. I have used other people's teaching. Access is no longer limited to who you talk to or who you know.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

The OER project has been able to develop a regional resource in occupational health, which has potential users beyond South Africa. The created regional resource has supported students in Southern Africa to have access to our materials. It has strengthened collaboration within South Africa in terms of teaching occupational and environmental health. It has potential uses in terms of being used as an electronic handbook that can be consulted by students doing training in occupational health at postgraduate level.

Mohamed Jeebhay, professor and associate director of occupational health, FHS

#### **Attracted international recognition**

The OER module, *Occupation Focused Conceptual Frameworks*, by Ms Ramafikeng has received international recognition from two sources. In September 2010, the resource was translated and published in the Spanish *Journal of Occupational Therapy of Galicia*. This is a research journal – making Ramafikeng's work a rare example of a teaching resource being recognized in a research space.

In 2011, the resource received the Award of OCW Excellence (ACE) from the OpenCourseWare Consortium in the 'texts and illustrations' category. The award was one of ten, and the only entry from Africa, among 18,000 OER from around the world, nominated for evaluation.

When you look at some of the work that was awarded, none of it came from Africa, except for ours. For them to choose something from UCT was an acknowledgement that we are producing something comparable to world-class standards.

Matumo Ramafikeng, support staff and OER developer, FHS

### **Faculty learned new skills**

A significant achievement in FHS OER development is that those who were first in transforming teaching materials into OER have not stopped after the initial effort. Rather, they have continued to develop further OER, during the process actively seeking to learn new skills. For example, Ms Ramafikeng, who initially worked with people from other departments like CET who knew more about OER than she, is not only advocating OER to other colleagues in the faculty. As already mentioned, she is also using the skills that she learned during development of her OER – such as searching for other OER, and building in multimedia features – to help colleagues develop their own OER. While colleagues are receiving this kind of help, some of them are willing to learn new skills.

When I got involved, in the beginning I was focusing on the content and now I am interested in the actual production. With my first OER, I was only interested in the content; but for the second one I am doing I am involved in various aspects of the publication, so I am learning new skills.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

### **Reused existing OER**

Sharing teaching materials as OER makes it possible also to share practice. Those who have developed OER at UCT have been able to benefit from using OER developed by others. This can result in time savings for developers and help lecturers keep up with teaching trends elsewhere, by learning from others.

Lecturers have been made aware that there are some other materials that they can use to supplement their teaching. Historically, if lecturers wanted to give students extra materials, they had to go and create them. Now they can reuse other people's materials.

Greg Doyle, educational technology manager, FHS

# Challenges

Development of OER in the FHS has come with challenges. Some of these are surmountable, as is discussed in the section, *Next steps*.

### **Limited staff capacity**

The part-time working status of the OER support team has sometimes affected progress in development. For example, when the need has arisen for published OER to be updated, the team has not always been in a position to respond in a timely manner because of competing priorities and commitments. Furthermore, having part-time staff means the FHS can work with only a few lecturers at a time, and this may become an issue that could result in demoralization as more lecturers develop an interest in publishing their work as OER.

One of the challenges I found was that people were busy with other things and, because they are parttime, they have other things to do. If you have a full-time person, things keep going – it will not slow progress.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

### **OER** awareness activities have rarely targeted students

Mostly lecturers have been invited to OER awareness activities. However, when faculty actively use materials they have created with their students, they do not seem to be drawing the attention of their students to the fact that such materials are openly licensed, and that students can make use of other OER for their studies. Teaching students about OER would be a means of helping them to understand copyright issues and the importance of properly attributing sources they use in preparing papers and reports. The availability of the white-listed OER sites will benefit students minimally if they are not directed to them as useful learning resources. Students need to be made aware of the existence of OER and their value, and taught how to search effectively for OER and how to evaluate them before using them. Advocacy for OER would also cover copyright issues, which students seem to battle to understand.

Students need to learn about OER in first year so that they understand copyright issues. One group of students did a presentation for me about human rights and they used images and did not understand that, even though it was available on Google, they could not just use it without acknowledging.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

Student awareness is growing, but it is still very limited. OER are empowering for students as they can frame their own learning through accessing materials and not relying on textbooks and the lecturer. There is a diversity of ways presented by OER, on how they can learn.

Sam Lee Pan, project administrator, FHS

### **Uneven Internet access off campus**

For most students, while on campus, it is fairly easy to access OER online as there is Internet connectivity. For this reason, all OER are posted on the UCT virtual learning environment, VULA. However, students who do not live in university residences may struggle to access these materials after hours.

Students who are not on campus may struggle with Internet access and the cost of access and downloading. But some students download when they are on campus.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

### Ethical considerations when using patients in OER

No OER produced at UCT have yet involved patient recordings, as there is a concern that, if OER include patients, the life of the OER depends on the patient's continued cooperation and consent. A patient may initially agree to be screened in a video for an OER, but circumstances in their life may change, which could make them rethink this consent. Blocking off a patient's face may also affect extra-linguistic features, such as facial expressions and body language, that are telling to the diagnosis or treatment.

People may change their mind after you have published the work. This will affect the quality of the work that we do, if the OER are about that video. This will affect credibility of the author and the university. Especially with videos...in sessions where you want to show the face for reaction but need to block off the face, you will lose impact.

Matumo Ramafikeng, support staff and OER developer, FHS

### Time-consuming nature of creating high-quality OER

All of the faculty who have created OER agree that it is a time-consuming process, although they add that the time spent is worthwhile because of the extended reach of the materials and their improved quality. Seeking permissions and the need to create high-quality materials add to the time it takes to develop the resources to acceptable publication stage.

It took me six months for the development of the conceptual frameworks as there was some writing for permissions, which involves a lot of waiting. I also did a lot of checking and cross-checking. This took a lot of time as I wanted to be a perfectionist.

Matumo Ramafikeng, support staff and OER developer, FHS

The most difficult aspect is the copyright clearance as there is a lot of double-checking. I am less skilled, and I will get more familiar as I develop my second OER. It is time-consuming in the beginning, but in the end you recover the time that you put in. Initial time investment is not in vain because, while you are rewriting it, you find time to improve it, so the time spent is a worthwhile investment.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

### Lessons learned

During the two years that the FHS has been working with lecturers to convert and share their teaching resources as OER, it has learned a lot about enabling and constraining conditions for OER development and sharing.

### Institutional buy-in goes a long way

Although UCT does not have a specific institutional policy on OER, this has not greatly affected the uptake of OER activities within the university. The UCT Intellectual Property (IP) policy, which recognizes and spells out incentives for research contributions, has recently been revised and now explicitly includes a clause on open source and other open licensing. The fact that the university supports the release of materials under Creative Commons licences and engages in research projects where research outputs are published under such a licence, is a huge first step and motivator towards encouraging OER activities.

At the institutional level, they have just updated the UCT IP policy to include aspects on OER and Creative Commons, which I think has got more impact than a separate OER policy, because more people will refer to the IP policy.

Greg Doyle, educational technology manager, FHS

### Discrete OER activities can complement and advance one another

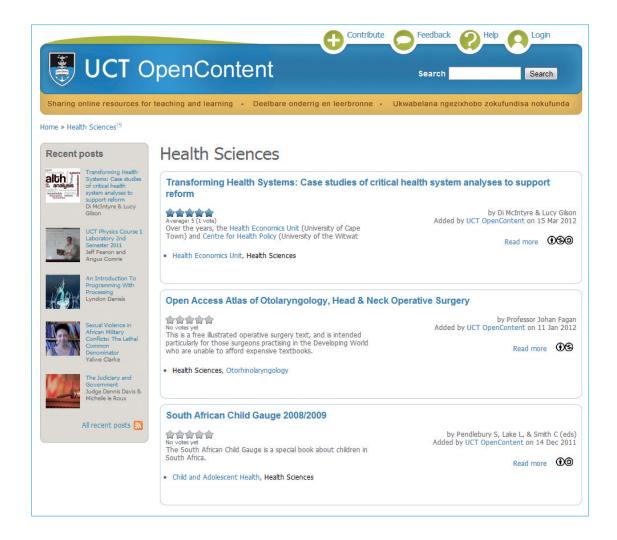
UCT has several discrete open initiatives, including self-published and shared resources, resources driven by CET, and those published through the UCT OpenContent Directory. The new OpenUCT initiative explicitly sets out to connect the range of open scholarship and resources across the university. These activities support one another in terms of marketing, funding, and expertise. Some of the lecturers who have published OER in the FHS have received funding from CET in order to do so, and FHS OER staff have worked closely with CET staff in advancing the FHS OER activities.

Collaboration with CET has been really useful. We have been supporting each other. The working relationship with CET was established through historical links. Many EDU people used to work for CET so relationships were established then. CET has an OER meeting every second week, and we meet to talk about issues and what is being worked on and international research, so it is a great place to get together. CET helps with legal advice on copyright issues and also support with workshops.

Sam Lee Pan, project administrator, FHS

#### Converting materials to OER enriches them

Working on releasing teaching materials as OER gives lecturers a strong awareness of exposure, which translates into a desire for perfection, so that materials put out for public consumption are of a very high standard. OER therefore promotes an ethic of self-assessment among developers.



One of the challenges I have had, working through the materials, is I am also asking myself, 'Is this good enough?' It feels like I am undressing. I realize that OER can be very threatening, and even though I am an OER promoter it's still quite something to know it is going out there. What reaction is it going to draw? OER is such an exposure of yourself and what you are doing – and that is not easy.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

### **OER** have potential to reach beyond borders

When OER are published, there is no restriction to who can access them. What is educationally relevant in one context can also be relevant – and useful for students and lecturers – in others.

Matumo Ramafikeng has seen that OER have the ability to influence people beyond borders. It was amazing to see the reach of the resources.

Sam Lee Pan, project administrator, FHS

#### **OER** are trendy

Technology is now an integral part of student culture, and OER fit perfectly into this student culture, especially when they encourage self-directed learning.

Students quite like OER. Our cohort of students is getting younger, and they are much more computer literate and more in tune with using electronic and digital resources. They like the interactive part, and they like the fact that they can do it at their own leisure and they do not have to travel as frequently to the university for instruction. They are frustrated if the server is down so they cannot access the materials; that is why they can download it onto their computers as it is available in a zip folder.

Mohamed Jeebhay, professor and associate director of occupational health, FHS

### **OER provides an additional avenue for publication**

Publication in peer-reviewed journals is perceived as a very difficult process with a lot of gate-keeping. Many journals have a very low acceptance rate, and enforce certain styles of writing and research. There are numerous scholarly resources produced within the university suitable for sharing, which nevertheless remain invisible because they are not in the form required by research journals. OER publishing presents an alternative to peer-reviewed academic publication in that it caters for dissemination of teaching practice without the need for rigorous theorization.

OER make information more accessible and generate new knowledge and contribution with less bureaucracy. Some of the information we would like to contribute is not appropriate for journals but OER can make you contribute. It is more appropriate for sharing practice without theorization. Community development contribution is not research orientated and can be disseminated through OER.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

### **OER defines lecturers in a more holistic way**

University expectation of and emphasis on publication in peer-reviewed journals seem to define the lecturer predominantly as a researcher. OER publications can project a lecturer as both researcher and teacher.

OER production has given me access to another way of being a higher education practitioner. There is so much emphasis on getting the research right, and on the other hand there is also so much significance attached to being a teacher. So, the OER writing combines the two dimensions of being a teacher and a researcher. Publication in a journal only allows you to show your credentials as a researcher, but OER allow me to project my researcher and teacher identities at the same time.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS

### Next steps

FHS OER staff have ambitious goals and useful suggestions for institutional consideration for the advancement of OER activities in the FHS.

### **Establish an OER focal unit with full-time staff**

In order to increase OER output and offer better support to faculty interested in developing OER, more OER staff are needed. This will allow the FHS to reach more lecturers, encouraging them to develop OER and supporting them adequately and efficiently through the development and publication process.

We need a bigger team supporting OER, with full-time employees. OER activities need to have a focal point in the faculty – it makes it more real if there is an OER area as opposed to it being part of IT.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

We need a full-time person just on OER. We need a technical person and a professional in the health sciences. This would take the weight off lecturers – if there was someone with subject-matter expertise to review the materials and support lecturers.

Matumo Ramafikeng, support staff and OER developer, FHS

### **Expand advocacy efforts to students**

The FHS OER manager plans to include students in OER advocacy in the future. An opportunity already exists where this could be done – during student orientation.

OER awareness has been focused on lecturers. Students may not even be aware that they are using OER, or what a Creative Commons licence is. We have orientation training for students, and we can introduce OER then.

Greg Doyle, educational technology manager, FHS

### **Diversify medium of distributing OER**

In the FHS, it appears that there is a high reliance on online distribution of OER to students. As already mentioned, this could be constraining for some students who live off campus with no Internet access, or for students who live in remote areas and cannot access the Internet during vacations. It would be useful to consider various modes of distribution of OER, for example, in printed format and as CD ROMs. The use of CD ROMs for distributing OER to students has been adopted successfully at the University of Malawi Kamuzu College of Nursing and at UG CHS.

### **Develop OER from scratch**

The time it takes to develop OER, aside from the fact that the lecturer wants to do careful checking on quality, is also affected by delays associated with copyright clearance. Several factors account for this, including the fact that, when dScribes ask lecturers to confirm the source of content used from another source, lecturers do not necessarily remember from where they got the content. As a result, the lecturer's time is consumed searching for the source, and the dScribe's work on the materials is delayed. When developing materials for their own classroom, lecturers may not be as disciplined about referencing as they are when they are writing for public dissemination. A way to get around the time inputs caused by converting teaching materials into OER is to develop OER from scratch. This way, the lecturer is more aware of copyright issues, references well for copyright clearance purposes, and sources OER to use in the materials. Regarding images, the lecturer can use a graphic artist to draw images to convey their ideas instead of using copyrighted materials. This strategy is being employed successfully at KNUST and UG. There are also open content repositories that can be used to source openly licensed images.

### Organize formal peer review to add value to OER production

A formal peer review process for OER has the potential to increase their value, and in turn may encourage the university to consider rewarding lecturers for OER creation. Those publishing OER are as concerned about quality as those publishing in peer-reviewed journals. This deserves consideration of the status given to those engaged in OER development and sharing.

Perhaps one could add a different peer review focus to the OER contributions that we make so that the university can give more recognition to these publications. In terms of UCT's social responsiveness, OER contributes as it makes knowledge more accessible. If it is not being recognized as a journal publication, at least it should be recognized for contribution to social responsiveness. Those who publish in journals get remuneration and similarly there should be remuneration for contribution to social responsiveness through OER. This is something that should be considered.

Roshan Galvaan, senior lecturer, Occupational Therapy Division, FHS



We need some peer review process so that people feel confident about the quality of the materials that they put up. This may also give OER more value. Because they are not peer reviewed people are still thinking the materials may not be good enough; yet some people, like I did, take more time writing the OER to make sure they are of a very high standard.

Matumo Ramafikeng, support staff and OER developer, FHS

### Advice for other institutions

Contributors were asked to provide advice to other institutions interested in launching their own OER initiatives. Respondents spoke about the potential benefits of OER, while offering practical guidance on how to produce OER and how to make use of OER created by others.

### **Open is worthwhile**

OER development, especially if there is no dedicated unit driving the process and it is being driven by part-time staff, can be very difficult – but it is worthwhile. Seeing tangible results and getting acknowledged for them make the hard work put into the OER development and production process worthwhile.

OER development is a very difficult process but worth the effort put in. It is a valuable, exciting, and enriching process. You will see a change in the institution if you adapt your resources to OER. If you develop OER, you will be part of an international movement.

Sam Lee Pan, project administrator, FHS

### **Champions are valuable to drive OER activities**

The FHS is fortunate to have strong OER champions, all of whom have published their own teaching resources as OER. Champions play multiple roles, including explaining what OER are, sourcing funding for OER creation or adaptation, and helping with searching for content. As OER are being developed, champions need to motivate others to sustain momentum and get the resource published.

There is a lot of commitment in having a champion – Professor Myers was instrumental in driving the project.

Mohamed Jeebhay, professor and associate director of occupational health, FHS

When well-established and respected lecturers share their resources as OER, this is likely to encourage others to share.

People in high-up places are sharing even their teaching models...Role modelling is important...for example, to be able to say 'Jonny Myers [a former head of school] has put stuff up' – this gives gravitas and displays OER as a way forward, rather than a risky and potentially career jeopardizing move.

Veronica Mitchell, support staff, part-time lecturer and OER developer, FHS

### Conclusion

Over the past two years, FHS OER activities have grown steadily, and high-quality OER have been produced with the help of limited support staff. The funding from the William and Flora Hewlett Foundation has enabled the project to take off, and, as the funding period draws to an end, the focus now is on whether the FHS will be able to sustain its OER activities. Several factors highlighted in this case study create a conducive environment for sustainability:

- Institutional support for OER is explicit, as promulgated in the IP policy.
- OER champions make a big difference. The dean of the FHS is very supportive of OER, as are several directors in the School of Public Health and Family Medicine.
- The existence of CET and other open initiatives provides a strong context with skills and resources to support FHS health OER projects.
- The OpenContent Directory is likely to promote sharing materials as OER and could encourage more faculty to want to share their resources.
- The availability of internal funding can aid the development of additional OER.
- The international recognition that Ms Ramafikeng has received for her OER is likely to have promoted the worth of sharing resources as OER.

Most importantly, FHS OER are being developed for active use in real classrooms, not as hypothetical add-ons. This makes sustained OER development viable – as teaching resources are being revised, lecturers may decide to license them openly and share them.



### African Health OER Network Facilitators



OER Africa is an innovative initiative established by the South African Institute for Distance Education (Saide) to play a leading role in driving the development and use of Open Educational Resources (OER) across all education sectors on the African continent. Established in 1992, Saide's mission is to increase equitable and meaningful access to knowledge, skills and learning across the African continent, through the adoption of open learning principles and distance education strategies. Saide's recently launched OER Africa initiative brings together all of its OER-related activities under a common conceptual framework. Saide is – through its OER Africa initiative – providing a unique opportunity to deploy African expertise to harness the concept of OER to the benefit of education systems on the continent and around the world.



The University of Michigan (U-M) has a strong tradition of leadership in health science education. U-M established the first school of scientific medicine on the western frontier in 1850 and quickly became a leading producer of both practitioners and faculty members for other medical schools. Other health sciences programmes were established in the late 19th Century and early 20th Century, leading to the university's current complement of programmes in Medicine, Public Health, Nursing, Dentistry, Pharmacy, Kinesiology, and Social Work. U-M's health professions schools are deeply involved in issues of global health. Building on that legacy and investment, in 2008 U-M launched the university-wide Center for Global Health, which includes OER activities. Across the university there is strong investment in partnerships with African institutions. U-M has one of the strongest collections of health sciences education programmes, deep engagement in cutting-edge informational and educational technologies, and a vision for global service.

This case study is one in a series that aims to showcase Open Educational Resources (OER) programmes at African health science institutions. It is intended for higher education instructional staff and decision-makers both on the African continent and globally. To date, case studies in this series include the University of Malawi, the Kwame Nkrumah University of Science and Technology, and the University of Ghana.

Each institution in the series was a founding member of the African Health OER Network and has taken steps to open its teaching expertise to the world and develop sustainable institutional health OER initiatives.

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