Research on Open Educational Resources for Development in the Global South

IDRC Grant: 107311-001 and 107311-002

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See full list of researchers, their institutions, and their contact details in Appendix A.

Link to website: http://roer4d.org

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This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
Table of Contents

List of abbreviations and acronyms

1 Synthesis
2 Research problem
3 Research objectives and initial findings
   3.1 Objectives
   3.2 Initial findings
4 Project implementation and management
   4.1 Activities, research methods and changes in orientation
      4.1.1 Knowledge building
      4.1.2 Research Capacity Building
      4.1.4 Networking
      4.1.5 Communication
      4.1.6 Curation and Dissemination
      4.1.7 Evaluation
   4.2 Partnerships
   4.3 Disciplinary orientation
   4.4 Involvement of research users
   4.5 Features addressing gender issues
   4.6 Administration by research organization and human resources
   4.7 Forecasted expenditure
   4.8 Project schedule
   4.9 Technical and other support and administration by IDRC
5 Projects outputs and dissemination
   5.1 Information sharing
   5.2 Knowledge creation
   5.3 Training
   5.4 Capacity building
      5.4.1 Institutional reinforcement and sustainability (equipment, training, admin skills)
      5.4.2 Increased research and admin skills
      5.4.3 Capacity building of women or marginalised social groups
6 Impact
   6.1 International reputation
   6.2 Regional reputation
   6.3 National reputation
   6.4 Institutional reputation
   6.5 Sub-project Impacts

7 Recommendations
   7.1 Recommendation 1: Provide time and expertise for curation of open data
   7.2 Recommendation 2: Provide time and expertise for supporting research capacity building
   7.3 Recommendation 3: Support for co-authoring and open access publishing
   7.4 Recommendation 4: Scope the role of the PI and DPI in relation to the size of the projects
   7.5 Recommendation 5: Allocate funds for exchange rate losses

8 Conclusion
9 References
Appendix A - List of Researchers
Appendix B - ROER4D Book chapters, keynotes, conference papers & presentations
Appendix C - Overview of projects, outputs and outcomes

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
### List of abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviations and acronyms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCP</td>
<td>access-creation-curation-publishing</td>
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<tr>
<td>AEN</td>
<td>Africa Evidence Network</td>
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<td>AG</td>
<td>Advisory Group</td>
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<td>AVU</td>
<td>African Virtual University</td>
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<td>CC</td>
<td>Creative Commons</td>
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<tr>
<td>CW4WAfghan</td>
<td>Canadian Women for Women in Afghanistan</td>
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<td>CEMCA</td>
<td>Commonwealth Education Media Centre for Asia</td>
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<tr>
<td>CHED</td>
<td>Centre for Higher Education Development</td>
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<tr>
<td>CILT</td>
<td>Centre for Innovation in Learning and Teaching</td>
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<tr>
<td>COL</td>
<td>Commonwealth of Learning</td>
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<tr>
<td>CPUT</td>
<td>Cape Peninsula University of Technology</td>
</tr>
<tr>
<td>CRADLE</td>
<td>Centre for Research on Activity, Development and Learning</td>
</tr>
<tr>
<td>DECI-2</td>
<td>Developing Evaluation &amp; Communication Capacity in Information Society Research</td>
</tr>
<tr>
<td>DFID</td>
<td>Department for International Development</td>
</tr>
<tr>
<td>DPI</td>
<td>Deputy Principal Investigator</td>
</tr>
<tr>
<td>Enlaces</td>
<td>Center of Education and Technology (in Chile)</td>
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<tr>
<td>GO-GN</td>
<td>Global OER Graduate Network</td>
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<td>HOD</td>
<td>Head of Department</td>
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<td>IDRC</td>
<td>International Development Research Centre</td>
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<tr>
<td>IPP</td>
<td>Instituto Profesional Providencia</td>
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<tr>
<td>ITIC</td>
<td>IT for Change</td>
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<tr>
<td>IOL</td>
<td>Institute of Open Leadership</td>
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<td>JRM</td>
<td>Joint Review Mission</td>
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<tr>
<td>K-12</td>
<td>primary and secondary education</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<td>KOER</td>
<td>Karnataka Open Educational Resources</td>
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<td>MGC</td>
<td>Memorandum of Grant Conditions</td>
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<td>MHRD</td>
<td>Ministry of Human Resources Development</td>
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<tr>
<td>MOOC</td>
<td>Massive Open Online Course</td>
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<tr>
<td>NCERT</td>
<td>National Council for Educational Research and Training</td>
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<td>NPI</td>
<td>New Policy Institute</td>
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<td>OE</td>
<td>Open Education</td>
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<td>OEP</td>
<td>Open Educational Practices</td>
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<td>OER</td>
<td>Open Educational Resources</td>
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<td>OCSDNet</td>
<td>Open Collaborative Science in Development Network</td>
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<td>OKF</td>
<td>Open Knowledge Foundation</td>
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<tr>
<td>OSF</td>
<td>Open Society Foundations</td>
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<td>OUSL</td>
<td>Open University of Sri Lanka</td>
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<tr>
<td>OUT</td>
<td>Open University of Tanzania</td>
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<tr>
<td>OUUK</td>
<td>Open University, United Kingdom</td>
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<tr>
<td>PAR</td>
<td>Participatory Action Research</td>
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<tr>
<td>PI</td>
<td>Principal Investigator</td>
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<td>PIU</td>
<td>Primary Intended User</td>
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<tr>
<td>QH</td>
<td>question harmonisation</td>
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<tr>
<td>RCIPS</td>
<td>Research Contracts and Intellectual Property Services</td>
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<td>ResCom</td>
<td>Research communication</td>
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<tr>
<td>RLO</td>
<td>Reusable Learning Object(s)</td>
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<tr>
<td>RMSA</td>
<td>Rashtriya Madhyamika Shiksha Abhiyaan</td>
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<tr>
<td>ROER4D</td>
<td>Research on Open Educational Resources for Development</td>
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<tr>
<td>ROER4D-IS</td>
<td>ROER4D Impact Studies</td>
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<tr>
<td>SAIDE</td>
<td>South African Institute for Distance Education</td>
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<tr>
<td>SP</td>
<td>Sub-project</td>
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<td>STF</td>
<td>Subject Teacher Forum</td>
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>TESSA</td>
<td>Teacher Education in Sub-Saharan Africa</td>
</tr>
<tr>
<td>TESS-India</td>
<td>Teacher Education through School-based Support in India</td>
</tr>
<tr>
<td>UCT</td>
<td>University of Cape Town</td>
</tr>
<tr>
<td>UFE</td>
<td>utilization focused evaluation</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNISA</td>
<td>University of South Africa</td>
</tr>
<tr>
<td>UPOU</td>
<td>University of the Philippines Open University</td>
</tr>
<tr>
<td>VUP</td>
<td>Virtual University of Pakistan</td>
</tr>
<tr>
<td>WOU</td>
<td>Wawasan Open University</td>
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This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
1 Synthesis

A number of challenges face education in the 21st century in the so-called political ‘Global South’, including ways to meet the growing demand for education in a context where schools, colleges and universities are under financial pressure, have limited human resources, struggle to provide high quality and affordable education, and gain access to relevant, good quality and cost-effective teaching and learning materials. Enabled by the ubiquity of the Internet, alternative copyright mechanisms such as Creative Commons, and the growing “open” movement, the emergence of open education, which includes Open Educational Resources (OER), open textbooks and massive open online courses (MOOCs), has been hailed as a potentially fruitful response to some of these challenges.

As UNESCO and the Commonwealth of Learning (COL) have called for extended commitment to OER, especially by countries in the Global South, it is necessary to search for evidence of how OER creation and use are influencing educational practices and policy in this region. While some research is emerging on the use and impact of OER in addressing some pressing educational challenges, most of this research is happening in the Global North. Research on the efficacy of OER in the Global South is embryonic and primarily focused on specific projects and interventions. A stronger evidence base on OER would allow governments and institutional leaders in the Global South to move beyond rhetoric based on appealing claims and propositions to evidence-based educational policies which effectively address the challenges facing them. It also has the potential to ensure that education policy development initiatives and further expenditure by philanthropic foundations and governments are indeed achieving the desired outcome of resourcing easily accessible, socially acceptable, high quality and affordable educational materials in the Global South. There is therefore a need to investigate if and under what circumstances the adoption of OER impacts upon some of the educational challenges in the Global South.

The general objective of the Research on Open Educational Resources for Development (ROER4D) project is to improve educational policy, practice and research in developing countries by better understanding the use and impact of OER. The specific objectives of the project are to: (1) build an empirical knowledge base on the use and impact of OER in education; (2) develop the research capacity of OER researchers; (3) build a network of OER scholars; and (4) communicate research to inform education policy and practice. In order to meet these objectives successfully, an implicit intent has been framed as an additional objective, namely to (5) develop a strategic approach towards the curation and dissemination of research documents and data collected in the project.

The programme consists of 18 sub-projects across the Global South, in three regions, namely: South America, Sub-Saharan Africa and South and Southeast Asia. Using desktop regional reviews, cross-regional surveys, cross-regional and country case studies, action research studies, and focused impact studies, the research activities and findings are endeavours to establish evidence of students and lecturers’ OER awareness, access, creation, use, non-use, reuse (revision, remixing, redistribution) and attitude towards OER in a selection of institutions. The project also aims to establish evidence on the impact of OER adoption on educators’ practices, educators’ epistemological stances, intercultural interaction between teachers, educators’ pedagogical perspectives, the quality of teaching and learning materials, the use of content in different learning contexts, learner reach, educators’ subject matter knowledge, access to resources, curriculum development, costs, student enrollment, independent learning, and student performance.

Programme clarification: Since the last technical report additional funding has been received from the IDRC (Grant 107311-002) for seven new impact studies, managed by Wawasan Open University (WOU); some of
which investigate OER in secondary schools and one which specifically investigates MOOCs that make materials available as OER. Extracts from the WOU Technical Report are included in this report.

2 Research problem

While certain challenges facing education in the Global North and South are similar – such as the increasing costs of education and increasing costs of textbooks (Allen 2010; Moody et al., 2015) – other challenges play out differently in the different regions; for example, the need for quality professional development for teachers (Burns & Lawrie 2015). According to UNESCO (2011), secondary schools across the globe have been accommodating nearly one hundred million additional students every decade, with the total number growing by 60% between 1990 and 2009. In order to address this global challenge, enrolment is however not enough, as the World Bank reports (Dundar et al. 2014); it is crucial to focus on the quality of education being provided and the quality of textbooks in particular (Fredriksen, Brar & Trucano 2015). Moreover, many students in the Global South desire post-secondary education (college and/or university education), but are excluded due, in part, to the lack of availability of post-secondary institutions, the cost of tuition, and the cost of up-to-date learning materials that are appropriate to their context. In addition, rapidly changing working environments in a period of economic instability are also increasing the need for informal learning and “lifelong learning”, necessitating easy access to current and affordable educational materials.

In addition, a range of barriers such as geographical remoteness, cultural norms, prior achievement, physical circumstances (Lane 2008); limited connectivity (Dhanarajan & Porter 2013); and lack of digital literacy (or digital fluency) (Lane 2009) may result in unequal access to education, further marginalising vulnerable groups. One key finding of the Internet Society's 2015 Global Internet Report¹ is that, given the availability of the mobile Internet, affordability and lack of relevant content are now the main barriers to Internet use – and, by implication, to the use of the Internet for educational purposes.

OER have been proposed as a potential response to these various challenges. The concept has been variously defined by international agencies, philanthropic organisations, researchers and practitioners. For this project OER will be defined as follows:

OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Examples of OER include full courses, course materials, modules, textbooks, streaming videos, tests, software, massive open online courses (MOOCs) and any other tools, materials, or techniques used to support access to knowledge (adapted from Smith & Casserly, 2006, p. 8).

OER are increasingly being adopted as a way of widening access to quality and affordable educational opportunities through a range of international OER initiatives, repositories and portals (e.g. MIT Open Courseware, Open University’s OpenLearn, Washington State’s Open Course Library, Khan Academy). Although access data provided by these various portals, e.g. MIT Statistics², indicate some access to these resources from countries in the Global South, the number of “hits” do not explain how these materials are being used, by whom and to what effect in order to provide empirical evidence for the “widely shared belief

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¹ [http://www.internetsociety.org/globalinternetreport/](http://www.internetsociety.org/globalinternetreport/)
² [http://ocw.mit.edu/about/site-statistics/](http://ocw.mit.edu/about/site-statistics/)

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that [OER] were going to be a fundamentally important phenomenon for the future of learning and education” (Tuomi, 2013, p. 59). Data from MIT’s site statistics for Open Courseware indicates that only 2% of users are from Sub-Saharan Africa3 and a report on the first year of HarvardX and MITx courses4 shows that 20,745 (2.7%) of users have IP or mailing addresses from countries on the United Nations list of Least Developed Countries. A recent report released by Creative Commons on The State of Creative Commons’ states that 16%, 10% and only 1% of CC-licensed works are published in Asia-Pacific, Latin America and Africa, respectively. The paucity of research on the contribution of OER in improving education triggered the development and implementation of this research programme.

When describing how much traction OER has gained in education in the Global South, authors are still grappling with the seminal construct that describes OER practices; including awareness of, access to, attitude towards, use of, various types of reuse (such as revision, remixing, redistribution), as well as what indicators are appropriate in an endeavour to make a judgment about OER impact. In this project we use “adoption” as the overarching construct to denote the wide range of OER practices, and have isolated the following as indicators of impact: educators’ practices, educators’ epistemological stances, intercultural interaction between teachers, educators’ pedagogical perspectives, the quality of teaching and learning materials, the use of content in different learning contexts, learner reach, educators’ subject matter knowledge, access to resources, curriculum development, costs, student enrollment, independent learning, and student performance.

Globally, international foundations such as the Open Society Foundations (OSF) and the Shuttleworth Foundation as well as multi-national agencies such as the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the Commonwealth of Learning (COL) have been urging governments to develop policies to promote OER and encouraging individuals to contribute to and use OER (see the Cape Town Open Education Declaration6 and the Paris Declaration7). Empirical evidence on the adoption and impact of OER adoption in the Global South is necessary to inform government and institutional educational policy development, advocacy work, grant making, and the establishment of technological infrastructure for OER as well as the practice of educators and students in formal and informal contexts. This evidence is of particular importance to developing countries that are socio-economically challenged and see OER as a possible way of responding to the demand for easily accessible, relevant, high-quality and affordable education. In addition, this evidence will contribute to the fairly limited body of empirical knowledge about OER in the Global South and, in the process, develop the research capacity of a network of researchers in the regions. In order to ascertain the rate of OER adoption, the circumstances under which OER are being used, and how their use may be impacting upon education in intended and unintended ways, it is necessary to gather empirical data about the adoption and impact of OER in the Global South.

Programme change: Due to needs identified and additional funds being made available for OER Impact Studies (Sub-project 10.1–10.7) as a separate IDRC grant to Wawasan Open University (Grant #107331-002), the education sector addressed in the ROER4D project was expanded beyond the higher education focus to include primary, secondary and post-secondary education. Sub-projects 11 and 12 were originally scoped to include the identification of baseline education expenditure in the schooling and post-secondary sector as a basis for interrogating the claims that OER reduces the costs of educational materials. Some of the new

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3 [http://ocw.mit.edu/about/site-statistics/](http://ocw.mit.edu/about/site-statistics/)
4 [http://harvardx.harvard.edu/multiple-course-report](http://harvardx.harvard.edu/multiple-course-report)
5 [https://stateof.creativecommons.org/report/](https://stateof.creativecommons.org/report/)
6 [http://www.capetownideclaration.org/](http://www.capetownideclaration.org/)
Impact Studies also include participants from secondary schooling environments (Sub-project 10.5), but the post-secondary focus still applies to all other sub-projects.

Another significant change in the reporting period is that the focus going forward will be on reallocation of resources in order to further support the mentoring and research development process by adopting a strategic approach towards the editing, curation and dissemination of project outputs, rather than assembling the entire ROER4D community for a whole-network workshop adjacent to a conference, as originally planned.

3 Research objectives and initial findings

3.1 Objectives

The **general objective** of this research programme is to improve educational policy, practice and research in developing countries by better understanding the use and impact of OER in secondary and post-secondary education. The **specific objectives** of the project are to: (1) build an empirical knowledge base on the use and impact of OER focusing in education; (2) develop the research capacity of OER researchers; (3) build a network of OER scholars; and (4) communicate research to inform education policy and practice. In order to meet these objectives successfully, an implicit intention has been framed as an additional objective, namely to (5) develop a strategic approach towards the curation and dissemination of research documents and data collected in the project.

The ROER4D project covers 26 countries across 16 time zones in the Global South, is clustered around seven key research themes, and undertaken by 86 researchers. Figure 1 locates the seven project clusters of the ROER4D project, namely: (1) OER desktop review; (2) OER survey; (3) Academics’ adoption of OER; (4) Teacher educators’ adoption of OER; (5) OER adoption in one country; (6) OER impact studies; and (7) Baseline educational expenditure studies.

![ROER4D infographic 2015 (map)](image_url)

*Figure 1: ROER4D infographic 2015 (map)*

*This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.*
This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
| SP4 – Academics’ acceptability of OER in South Africa | To understand why academics contribute or refuse to contribute OER at selected South African universities. |
| SP5 – Collaborative co-creation of OER in India | To study whether and how teachers and teacher-educators can collaboratively co-create or adapt OER by establishing the skills and support required for collaborative materials development; the local needs and contexts; and the relationship of the resultant OER within institutional and governmental systems. |
| SP6 – Collaborative co-creation of OER in Colombia | To study whether and how teachers and teacher-educators can collaboratively co-create or adapt OER by establishing the skills and support required for collaborative materials development; the local needs and contexts; and the relationship of the resultant OER within institutional and governmental systems. |
| SP7 – OER integration for course development in Malaysia | To probe the operational processes involved in course development using available online multimedia OER materials by studying the ease of locating OER (findability), ways of reusing OER (re-usability), cost/time efficiency, conceptual understanding about OER, attitude towards OER, and quality of learning materials produced with OER. |
| SP8 – OER adoption and use in Mongolia | To identify the factors affecting adoption of open licensing and OER in Mongolia. |
| SP9 – OER use in Chile | To improve understanding of the relationship between the use of OER and the development of logical-mathematical skills in first-year higher education students and to propose the design elements of a teaching model for integration of OER into higher education practice. |
| SP10.1 – Impact of TESSA project’s OER on educators in Tanzania, Rwanda, Mauritius and Uganda | To examine the impact of OER engagement on the practices of teacher educators at a number of sites in East Africa and Mauritius. |
| SP10.2 – Impact of OER in Kenya, Ethiopia, Tanzania, Somalia, Senegal, Mozambique, Madagascar, Zambia and Zimbabwe | To provide evidence that access to an OER curriculum leads to the strengthening of institutional capacity to train more teachers and improve quality of training. |
| SP10.3 – Impact of MOOCs as OER on educators’ practice at UCT, South Africa | To investigate whether OER adoption in a MOOC format contributes to the spread of Open Educational Practices (OEP). |
| SP10.4 – Impact of OER library in Afghanistan | To explore whether and to what extent teachers’ subject and pedagogical knowledge improves if they have access to a source of knowledge related to the content and practice of their profession, and which is linked to the curriculum they teach and accessible in their own language. |
| SP10.5 – Investigating the Impact of OER on secondary and tertiary education in Pakistan | To evaluate the impact of OER in Pakistan by investigating its impact on teaching practice, student learning and educational performance, and institutional educational policy. |
| SP10.6 – Impact of integrating OER in teacher education at the Open University of Sri Lanka | To investigate the impact of integrating OER in the educational practices of student teacher, in terms of changes in the quality of teaching-learning materials teachers use and changes in their pedagogical perspectives and practices. |
| SP10.7 – Impact of OER course development at UPOU, Philippines | To measure the impact of OER-based course packages on the quality of learning materials and teaching competence and to determine whether using OER is more cost-effective in course development at UPOU, Philippines. |
| SP11 – Mapping educational expenditure in South Africa | To develop a better understanding of the funding flow from government money (public sources) into educational resource acquisition, development and dissemination in basic education; and to investigate whether any public funding is being channelled into OER. |
| SP12 – Educational expenditure in South America | To identify and analyse public policy and the investment and expenditure that the governments of Argentina, Chile, Colombia, Paraguay and Uruguay commit to make in the development and procurement of textbooks, books and digital content for primary and secondary education (K-
3.2 Initial findings

A summary of the initial findings from each individual sub-project is provided below. There are limited findings at this stage of the project, with some sub-projects having findings to report at present.

SP1: Desktop review of OER in the Global South
There has been no change in the reporting period, but usage figures tracked by the OpenUCT repository, where these documents are temporarily housed, indicate the following access:
- Overview of OER Policies and Practices in South and Southeast Asia: 951 views
- Indonesia OER Review: 423 views
- Malaysia OER Review: 345 views

SP2: OER differentiation survey in the Global South
From the pilot studies it was evident that the concept of OER is not understood under the terms typically used in the OER literature (i.e. reuse, revise, remix and redistribute) and that this is even more problematic in languages other than English, such as Indonesian, Portuguese and Spanish (the languages into which the survey was translated for this study). The final survey, administered randomly to students and lecturers within 33 institutions in 12 countries across South America, Sub-Saharan Africa and South and Southeast Asia, has yielded 5,429 out of the anticipated 7,000 responses to date (July 2015). This response rate of 72% is exceptionally high for this type of study. Unfortunately, the responses are not evenly distributed across regions, due in part to restrictions on student and lecturer data within higher education institutions in South America. Limited internet connectivity in Sub-Saharan African countries such as Ghana and Kenya forced researchers to gather data on printed copies of the survey instrument. An inference may be drawn in terms of limited access to online resources such as OER in these countries. In addition, this study has highlighted the difficulty of obtaining ethical clearance for undertaking research in Colombian and South African universities.

SP3: Academics’ attitudes to OER in India
While the research intends to explore the psychological and behavioural determinants that influence better use of OER and promote contribution to the development of OER, the project has not yet reached a stage of sharing initial findings from the four workshops and 28 interviews conducted and 117 questionnaire responses collected.

SP4: Academics’ acceptability of OER in South Africa
The project will be analysing the research findings from three workshops, 18 interviews and 37 completed questionnaires over the next six months. Initial findings drawn from the workshops suggest varying levels of OER awareness and policy engagement across three universities in South Africa.

SP5: Collaborative co-creation of OER in India
Initial analysis suggests that the access-creation-curation-publishing (ACCP) collaborative model of OER has enabled the Participatory Action Research cohort of teachers (the focus of this study) to become familiar with OER and had a significant impact on certain aspects of their practice in terms of accessing resources and communicating with peers.

Analysis of OER sharing via the Subject Teacher Forum (STF) programme mailing groups indicates that teachers have been utilising the virtual forums for sharing resources, in terms of sharing third-party resources and resources created by them. Teachers often ask for resources from their peers and respond to resources shared. Analysis of the resources created and shared suggests that these resources address teachers’ highest priority requirements, particularly as relates to assessment. An important inference from teacher email behavior is that they seem to operate on the implicit notion that all resources are OER. This is evidenced by
the fact that while most of the teachers share resources, requesting other teachers to use and adapt them, they share these resources without explicitly labeling them as OER.

Curation and publishing activity via the KOER portal, in comparison, has less visibility and appears to be a more complex activity. Resources shared cover a wide variety of areas and the resource files are in a variety of formats, with open file formats being popular. A significant proportion of resources are in the local language (Kannada). New community-sharing spaces (specifically WhatsApp groups) have spontaneously been created by teachers, who find this platform to be easier for sharing photos, messages and brief discussions.

Apart from the sharing of resources, the virtual forums have seen discussions on a wide variety of issues and concerns, from subject teaching to larger school and education issues to wider socio-political matters. These discussions have themselves been a source of learning and broadening of perspectives to teachers and in a sense can be seen as educational resources in themselves. Teachers have acknowledged that the sharing of resources and ideas in the forums has helped them in their classroom/pedagogical processes. The hypothesis that a “community of learning” could provide an OER model has been fairly substantiated with the generation of over 4,200 OER web resources and 2,500 files in English, and 3,000 OER web resources pages and 1,500 files in Kannada.

SP6: Collaborative co-creation of OER in Colombia
The main finding in this study relates to how 48 teachers in 11 schools in four districts who were introduced to copyright conventions and the alternatives offered by open licensing are more inclined to share copyright issues with their students and to include these issues in their pedagogic plans. Preliminary findings also suggest that the technical and legal possibilities offered by OER in terms of content adaptation enabled teachers to reflect upon their teaching practices and be inclined to use OER in the classroom – allowing students to have a more active role in creating content that is specific to their socio-cultural context (thereby enriching the original OER created by the teacher). This project has also helped to surface the adverse conditions that teachers in Colombia are working under, and show that the teachers who are creating OER appear to be doing so out of their commitment to their role as educators despite the fact that their institutions do not favour or reward this activity.

SP7: OER integration for course development in Malaysia
Interim findings suggest that although relevant online multimedia materials are available online, these resources are not all available under appropriately open licensing provisions. Course writers were initially instructed to search for and find relevant resources on the internet, but they did not attain high findability and only managed to locate a small number of resources appropriate for use in their module development. The competencies required for using/integrating a variety of OER materials to suit the pedagogical needs of the learning design varied considerably among the six writers. In the initial drafts prepared by the course writers they could use the resources only at basic levels of the hierarchy of the Okada (2012) framework. This might change to some extent when the modules are reviewed and edited. Initial findings reveal that engagement with the course writers led to improvement in their conceptual understanding of and attitude towards OER and its use. The granularity of the OER seemed to influence ease of use, with the smaller Reusable Learning Objects (RLO) being more difficult to integrate and more time consuming to remix than more comprehensive sets of OER.

SP8: OER adoption and use in Mongolia
It is currently too early in the research process to articulate preliminary findings.

SP9: OER Use in Chile
Data has been collected from three groups of students (n = 96; n = 81 and n = 62, respectively) and is currently being analysed and verified.
SP10.1 – SP10.7: As SP10 only started a few months ago there are no findings to date; except for SP10.3, which has early indicators that the adoption of OER in and as MOOCs does contribute towards educators having a more positive and responsive attitude towards the potential use-value of OER.

SP11: Mapping educational expenditure in South Africa
The extensive literature review undertaken by the project has enabled the project to understand the flow of public funds into the Department of Basic Education in South Africa.

SP12: Educational expenditure in South America
This sub-project, funded by the OSF, has completed project work and is not incorporated into the centralised reporting structure. There are no additional findings in the reporting period.

4 Project implementation and management
4.1 Activities, research methods and changes in orientation
ROER4D Network Hub activities are centered around the project objectives of Knowledge Building, Research Capacity Building, Networking, and Communication. The project has, in the reporting period, also introduced a focus on Curation and Dissemination; the purpose of which is to support the research process and optimise the visibility of project outputs. The Curation and Dissemination Strategy contains an Open Data Initiative component, which aims to support the ROER4D research community in research data management and open data publication. The project also has utilisation-focused, evaluation of Research Capacity Building, Networking, and Communications, as well as Curation and Dissemination.

The decision to introduce the Curation and Dissemination component was decided by the ROER4D Advisory Group (AG) at a meeting in Banff, Canada, in April 2015, as a more optimal use of available funds. Activities in each of the core project areas are listed below, as well as reflections on the evaluation component.

4.1.1 Knowledge building
Knowledge building is the ROER4D Network Hub’s principle objective. In terms of project implementation and management, this report draws attention to two principle areas of knowledge building activity at the Network Hub level that have played out during the reporting period: expansion of the project’s Impact Studies component, and implementation of the ROER4D workshop programme. Activities and research methods of the sub-projects can be found in their individual technical reports, linked to from Table 1 in Section 3.1.

Expansion of the Impact Studies component
One of the most significant changes in original project formulation has been the considerable expansion of the Impact Studies component to incorporate seven additional sub-projects under SP10. This expansion included the incorporation of Wawasan Open University (WOU) as a management and research partner in the coordination of SP10 Impact Studies Activity.

The decision to initiate and expand the scope of impact studies of OER on educational systems was arrived at following a process of reflection, discussion and discourse within the ROER4D AG, in response to the perceived demand for research evidence to support the value of deploying OER for in teaching and learning. On 14 April 2014, Wawasan Open University signed the IDRC Memorandum of Grant Conditions to administer a series of OER Impact Studies, as a component of the ROER4D project. One of the reasons for having the ROER4D Impact Studies (ROER4D-IS) sub-projects administered by a separate grant-administering institution is a recognition that, like the Adoption Studies, the Impact Studies demand exploration of the value of using OER in a variety of environments, and as such require a number of separate studies that collectively require increased capacity in terms of research management and grant administration. The funding organizations, IDRC and DFID, decided that an open global Call for Proposals should be made to
select quality studies located in Sub-Saharan Africa and developing Asia to pursue the objectives of the project defined by the AG.

A summary of activities leading up to the selection and sub-grants for the seven research studies is presented below:

Between April and July 2014, the WOU research management team in collaboration with the AG, put together a detailed plan to launch an international competitive process through an open Call for proposals to undertake OER impact studies. Consequently, however, changing environmental factors, including currency fluctuations, impacted and changed some process parameters in the original proposal plan.

The Call document that was developed by the WOU team incorporated advice from the members of the AG, as well as advice from 3ie, an international evaluation group\(^8\) contracted to evaluate the Call document. Altogether, the Call document writing process was an intensive piece of work that demanded much effort and time in drafting and redrafting since it was a collaboration among members working in different time zones with different points of view and writing styles. In tandem, guidelines on proposal submission and budget were drawn up, and the Call Homepage\(^9\) was created.

The online platform for receiving and jury-rating the proposals was simultaneously designed and outsourced for development. It was decided to contract a vendor who had developed the online platform to service the IDRC-supported series of competitive grants in order to avoid developing a new platform from scratch.

Among other things, this resource was utilised in order to save money and time, as the start-up date of Sub-project 10 has already been considerably delayed (moved to mid-April 2014 instead of the expected date of January 2014), as a result of the late confirmation of funding. As the available platform catered for public polling, re-architecting of the software to change this feature to a system of four-phase closed proposal rating caused a high level of frustration in arduous technical re-programming and financial negotiations. An initial system that met our needs was eventually rolled out in time to support the launch of the Call, while the rest of the technical programming for the proposal assessment component was completed just in time for the Call closing date and the commencement date of the proposal evaluation. Altogether although this process took a heavy toll on project management in terms of time spent and levels of stress, the end result was satisfactory in terms of a low-cost platform solution.

The public Call was eventually launched in mid-July and lasted for eight weeks from 15 July until 8 September 2014. Of the 109 proposals received, 52 were valid. Of these 45 proposals were filtered for evaluation from the first screening process conducted by the WOU team. Of these, 22 proposals focused on research sites in Asia and 24 proposals focused on research sites in Sub-Saharan Africa.

The entire proposal evaluation process took two months to complete over four evaluation phases. The last three evaluation phases were conducted by a team of 10 jurors from the AG, IDRC staff, and one external guest juror, Dr Marshall S (Mike) Smith, is an OER /education policy specialist. The process was comprised of four phases:

- **Phase 1: Pre-screening**: Two WOU team members pre-screened all 52 proposals received according to a minimum set of core criteria – country eligibility; budget; and annotated the education sector covered by each proposal.

- **Phase 2: Acceptance for evaluation**: The 10 jurors were paired in teams of two to assess the 45 proposals that had passed through Phase 1 to determine whether they should be accepted or rejected on the basis of general relevance to the Call. Each juror was given 9-15 proposals to assess. Seventeen proposals that had two “Yes” votes from two assigned jurors were moved to Phase 3. At this stage, the breakdown of the 17 proposals was: 8 from Asia; 9 from Sub-Saharan Africa.

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\(^8\) [http://www.3ieimpact.org/](http://www.3ieimpact.org/)


This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
• **Phase 3: Full Evaluation and scoring online:** Each proposal was evaluated and scored by a team of four jurors – two were the Phase 2 jurors, with another two added to make up the team of four. Jurors downloaded the full proposal documents and budgets from the online system or were supplied with the detail in email attachments. Jurors were provided with assessment and scoring criteria. Each juror was assigned 6–9 proposals to evaluate.

• **Phase 4: Jurying offline:** The online juror system ranked and presented the proposals which were scored by a team of four jurors – two of which were the Phase 2 jurors, with another two added to make up the team of four. Jurors were provided with access to the full proposal documents and budgets as well as assessment and scoring criteria. Each juror was assigned 6–9 proposals, which were evaluated by their aggregate scores from the four jurors. The list of the aggregate scores and resultant rankings for the 17 proposals was circulated to all jurors. An adjusted list of rankings for the 17 proposals (taking into account Z-scores to smoothen out the random bias factor caused by very high and very low scorers) was supplied by the IDRC and circulated. Discussions regarding the final selection of the final proposals in accordance with budget availability and research merits were carried out over two Skype sessions among the AG members.

The results of the competitive process were eventually communicated on 18 November 2014 to eight proponents with the most promising proposals. All eight project leaders were given the opportunity to attend an Impact Research Methodologies Workshop in Penang, Malaysia, to receive critique on their proposals and refine their research methodologies according to an agreed-upon research framework articulated in the workshop. One of the eight subsequently withdrew, leaving behind seven for further development.

The entire process from the Call to the final articulation of the seven research study contracts at end of February 2015 took approximately 14 months, which was much longer than anticipated. This was partly due to the iterative nature of decision-making involving AG members spread across three continents, as well as the need to constantly manage iterative changes in technical, administrative and financial arrangements to bring the call to a successful conclusion. The delay has had a knock-on effect in that the sub-projects have had a shorter project period of 18 months in which to implement the research (instead of 24 months proposed in the original ROER4D-IS project proposal).

During discussions around the Call for proposals a Framework for Impact studies was developed by Prof. Fred Mulder, which might prove useful during analysis.

*Implementation of the ROER4D workshop programme*

The following workshops took place in the reporting period.

**Impact Studies Initial Workshop**

At the outset of the project the AG was of the view that in order to derive maximum benefit from the Impact Studies, there needed to be consensus on the definition of “impact” and what evidence supports it in the OER context. To achieve this, a meeting was held in Singapore on 13–14 August 2014 with Dr Rob Farrow of the OUUK OER Research Hub, who was contracted to design the content and flow of a workshop on impact research methodologies. Subsequently, the actual Impact Studies workshop was held in Penang, Malaysia, from 1 to 5 December 2014 with Dr Farrow operating as a key resource in the proceedings. The four-day workshop had eight study-leader participants, in addition to working members of the AG and IDRC staff. They were supported by project staff from UCT and WOU. A final report of the workshop was compiled by Henry Trotter. Besides reaching broad agreement on the research framework for the Impact Studies, the occasion also served to further fine-tuning of the proposed research project, particularly as relates to methodological and financial aspects. A further added value of the workshop was the coming together of the scholars engaged in Impact Studies sub-project. Following the Penang Workshop and further revisions of the seven proposals, the final confirmations of grants was made and WOU began the process of negotiating and finalising the research contracts with the seven institutions that were awarded sub-grants.

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10 [http://bit.ly/1Nq72HL](http://bit.ly/1Nq72HL)

*This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.*
ROER4D Second Group Workshop - Banff, Canada (20-21 April 2015)

The second workshop for both the Adoption and Impact Studies researchers was held two days before the Open Education Global Conference on 22–24 April 2015 in Banff, Canada. The Workshop was attended by 34 ROER4D researchers, AG members, ROER4D communication/evaluation consultants, and the DECI-2 communication/evaluation mentors. The ROER4D group came from Brazil (2), Canada (7), Chile (1), Colombia (3), India (3), Indonesia (1), Kenya (2), Mongolia (1), Pakistan (1), the Philippines (1), South Africa (9), Sri Lanka (1) and the United Kingdom (2). The ROER4D team at Wawasan Open University in Malaysia and Singapore and colleagues from the Philippines and the USA were unable to join the workshop.

This was the second face-to-face meeting of the initial 11 ROER4D projects after the meeting held in Cape Town in December 2013 and the second meeting of the additional seven ROER4D Impact Studies research leaders who met in December 2014 in Penang, but it was the first time both groups had met each other. It was also the first time that SP8 mentor David Porter met the entire team and also the first time that our Communication and Evaluation Mentors Ricardo Ramirez and Dal Brodhead from the IDRC-funded DECI-2 Project participated in a ROER4D research workshop. The opening activity of introducing ourselves in our mother tongues and waiting to see if there was someone in the group who could translate our greeting provided a wonderful opportunity to get to know or reconnect with each other and to acknowledge our linguistic diversity.

To optimise our time together, we used a range of strategies including a World Cafe-style of presentation for the ROER4D Impact Studies researchers to explain their project proposals, while the ROER4D Adoption Studies researchers presented their research methods and some initial findings during the specially arranged ROER4D and GO-GN Research Track at the Open Education Global conference that followed the workshop. We also ran parallel qualitative and quantitative data analysis sessions under the guidance of qualitative researchers Freda Wolfenden and David Porter and statistician George Sciadas. Most importantly, we had both planned and flexible meeting sessions for researchers to meet and share ideas with each other. A full report of our workshop was written by Henry Trotter, which included links to ROER4D conference presentations.

4.1.2 Research Capacity Building

In the first phase of our Research Capacity Building plan (discussed in the previous technical report), we focused on developing our Adoption Studies researchers (at the ROER4D First Group Workshop in Cape Town in December 2013) through expert-led discussions on OER concepts, context, qualitative and quantitative data collection and analysis, and copyright issues. We then embarked on an in-depth question harmonisation (QH) process that produced 10 webinars in which sub-project researchers and hub team members discussed various ways of approaching questions around OER access, awareness, creation, demographics, definitions, and use.

In the second phase (covered in this technical report), we continued to reinforce some of the capacities that were developed during the first phase and extend into new territory by:

1. piloting a survey within ROER4D based on the insights gained through the QH process;
2. engaging with SP2 in a detailed exploration of how its large-scale survey could be enhanced by the QH results;
3. inviting sub-project researchers to share their draft research questions with the group; and

11 http://conference.oconsortium.org/2015/
12 http://conference.oconsortium.org/2015/presentations/
4. broadening the scope of webinar topics and presenters to help prepare for the ROER4D Second Group Workshop and Open Education Global Conference in Banff.

After completing the primary QH webinars, we conducted a pilot survey which included all of the questions we had agreed to as a group. We then had the ROER4D network, as well as a number of OER stakeholders (e.g. the OER Research Hub), fill out the survey and give us their feedback. Based on this, we gave a webinar on the feedback that we received (and asked for more feedback during the session), and conducted another session on the analytical results of the pilot, which allowed us to revise the pilot into a more effective draft survey.

Second, we engaged with SP2 in a series of online meetings and discussions to assess how the QH process could benefit the large-scale survey that the sub-project was preparing. In many ways, the success of the QH process had been predicated on SP2 aligning a number of its survey questions with those that the Network Hub had identified. However, despite numerous interactions and deliberations between the Hub and SP2, the sub-project decided not to use many of the questions that had been identified as valuable through the QH process. While several of other sub-projects – including SP3, SP4, SP6 and SP8 – had indicated that they would use many of harmonised questions in their own smaller, more local surveys, SP2 ultimately did not arrive at many of its survey question choices based on the intended harmonisation methodology. For the Hub team, this felt like a missed opportunity for ROER4D’s largest survey instrument to connect with other global OER surveys, and for greater harmonisation between our own sub-projects.

Third, during the deliberations between the Hub and SP2, five of the sub-projects gave webinar presentations on the research questions they were planning to use in their surveys. In some cases it was clear that there had been little engagement with or understanding of the QH process, while others embraced the methodology and included numerous questions from the QH process into their own instruments. A breakthrough was, however, achieved in the capacity development process as different sub-projects were now taking the lead in conducting their own discussions in the webinars rather than relying on the Hub to lead the way. This led to increased attempts on the part of the Network Hub to create opportunities for the sub-projects to present their work and to provide training in skills that they identified themselves as versed in.

Fourthly, we broadened the scope of webinar topics in preparation for the April 2015 ROER4D Second Group Workshop and conference, and to keep in step with sub-project progress. The following research capacity building webinars took place:

- the Hub Communications Consultant led a presentation on communications strategy,
- the PI led a presentation on brainstorming activities for the Banff workshop,
- the Hub Communications Consultant led a presentation on how to operate effectively at a conference,
- the PI led a presentation on deliberating impact,
- SP4 led a presentation on qualitative data analysis.

Lastly, we have provided detailed comments to researchers on their technical reports and those draft research reports already received. This individual-focused research support seems to have provided the greatest improvement in researchers’ conceptualisation and presentation of their research. It is, however, very time-intensive and costly, and it has mostly been undertaken by the PI and members of the ROER4D Hub team over and above their budgeted time.

In sum, the research capacity building efforts have been expansive and attentive to the desires of the researchers, although there were some mixed results in terms of what the Hub team would have liked to have
seen as outcomes. As we go forward, we are adjusting our efforts to deal with supporting the Impact Studies researchers as they come on stream as well as the Adoption Studies researchers in their final analysis/write-up stage. Individual support to researchers will be provided as far as possible, and as cost-effectively as possible. To support the writing process, the ROER4D Hub and the WOU management team provided researchers with templates for their interim Research Reports\textsuperscript{13}. The Curation and Dissemination Manager, Communications Consultant and PI are developing a ROER4D Style Sheet\textsuperscript{14} to assist researchers to assist with queries about editorial conventions and research presentation.

A recommendation for research capacity building comes from the WOU team. Capacity building was not originally envisaged to be a significant factor for SP 10, as it was thought that the global Call for Proposals would generate interest from experienced researchers in the field, resulting in high quality studies. This was, however, not what actually happened as not all experienced researchers in the field of higher education studies are familiar with OER concepts. Research capacity building has thus become a significant issue in the Impact Study component. Originally unanticipated, it is now apparent that research mentorship needs to be incorporated into SP10 management so as to ensure careful attention to research method and rigour in the ongoing studies, or risk invalid research results. Hence, a research mentor has recently been built into the project. The ROER4D Deputy Principal Investigator and AG member Dr Patricia Arinto has agreed to provide this mentorship to the SP10 projects. It is recommended that research capacity-building also be evaluated in SP 10, given the considerable research capacity building that is now going into the sub-grantee institutions.

4.1.4 Networking

Various activities allowed the ROER4D team opportunities to network with like-minded groups and individuals. In July 2014 our ROER4D team attended the OpenUCT repository launch and in August 2014 we had the first of a series of online meetings with the UK-based OER Research Hub team of Martin Weller, Beck Pitt, Bea de los Arcos, and Rob Farrow to share developments in both our projects. In September 2014 we, along with other IDRC grantees, were invited to a lunch by the high level IDRC delegation comprised of the President Jean Lebel, Acting Chairperson Monte Solberg, Governor Gordon Houlden, Vice President Programs and Partnerships Stephen McGurk, and Regional Director for sub-Saharan Africa Simon Carter, during their visit to Cape Town. Interesting conversations flowed around challenges faced by researchers doing research for development and questions about what the IDRC were doing well and what might be improved.

In November 2014 Cheryl Hodgkinson-Williams and Glenda Cox participated in the OpenEd 2014 Conference in Arlington, presenting on Learning to research OER openly\textsuperscript{15} and meeting up with TJ Bliss and Dana Schmidt from the Hewlett Foundation. We were delighted to know that they already knew about ROER4D and hope there may be potential synergies particularly in actively disseminating the research findings from the ROER4D project.

In March 2015 Cheryl Hodgkinson-Williams was invited to provide an overview of the ROER4D project\textsuperscript{16} to a group of 39 Dutch lecturers from Hoger Beroepsonderwijs ICT Opleidingen (HBO-i)\textsuperscript{17} visiting the University of Cape Town (UCT). The Dutch group was drawn from 14 institutions in the Netherlands and

\textsuperscript{13} http://bit.ly/1PjbhTG
\textsuperscript{14} http://bit.ly/1E2Khau
\textsuperscript{15} http://www.slideshare.net/ROER4D/research-on-open-educational-resources-for-development-roer4d-in-the-global-south-learning-to-research-oer-openly
\textsuperscript{16} http://www.slideshare.net/ROER4D/research-on-open-educational-resources-for-development-roer4d-in-the-global-south-an-overview
\textsuperscript{17} http://www.hbo-i.nl/portal

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
seemed particularly interested in establishing international networks with like-minded ICT colleagues, exploring opportunities for students to become involved in international projects and/or participating in student exchange programmes. From the questions posed, the group revealed an interest in how ROER4D is both researching “openness” with respect to educational resources and engaging in “open research”.

April 2015 was a particularly busy time as (en route to our workshop in Banff) PI Cheryl Hodgkinson-Williams and Communications Advisor, Sukaina Walji, attended the OER15 Conference18 in Cardiff, UK. Cheryl Hodgkinson-Williams presented on Harmonising OER Research across South America, Sub-saharan Africa and Asia19 while Sukaina Walji presented a “lightning talk” on one of the new ROER4D Impact Studies which is investigating the Impact of MOOCs as OER on educators’ open educational practices20. While at OER15 they took the opportunity to connect with people who had previously started following ROER4D on Twitter (including, but not limited to Marieke Guy from the Open Knowledge Foundation21 and Catherine Cronin22). Then, while in the UK, at the invitation of Ed Barney and Harriet Macdonald-Walker from the Evidence into Action Team at the Department for International Development (DFID), they met with a diverse team at DFID’s Whitehall offices in London. Cheryl Hodgkinson-Williams gave some background to OER, and open education, the ROER4D23 project and the necessity for evidence-based research into the use and impact of OER in the Global South. Before travelling to Banff, Sukaina Walji was also invited by Dr Liz Masterman from the University of Oxford to informally present the ROER4D project to three researchers at the Academic IT Group, University of Oxford, where she spoke about ROER4D’s objectives, scope and research areas. (This relationship was further cemented when Dr Masterman visited Cape Town in June 2015 and met with Cheryl Hodgkinson-Williams, Glenda Cox and Sukaina Walji). And finally, after our Workshop in Banff, the entire ROER4D team attended the OE Global Conference and met and exchanged ideas with the global OER community. More on this under Section 4.1.1.

One important networking outcome at Banff was that Abel Caine from UNESCO invited Cheryl Hodgkinson-Williams to apply for a UNESCO OER Chair. This was discussed with our IDRC program officer and other OER Chairs, Prof Fred Mulder and Prof Rory McGreal. All the documentation has been received and the application process will commence in September 2015 for consideration by UNESCO in 2016. Other important connections made in Banff were with Clint Lalonde from PressBooks Textbooks (see Section 4.1.6) and Jan Neumann from the OER World Map project24.

Cheryl Hodgkinson-Williams and Tess Cartmill had the pleasure of going to a lunch meeting with Naser Faruqui, the IDRC’s Director of Science and Innovation, at the Vineyard Hotel in Cape Town on the 8th of May 2015. He was interested in getting to know the ROER4D project and we were able to give him some highlights and insights. Also in May Sukaina Walji attended eLearning Africa in Addis Ababa, Ethiopia. She presented ‘Understanding openness in Research on Open Educational Resources’25 which put the case for the need for evidence based research on the use and adoption of OER in the Global South.

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18 http://oer15.oerconf.org/
19 http://www.slideshare.net/ROER4D/roer15-hodgkinson-williams
21 https://okfn.org/
22 https://catherinecronin.wordpress.com/
23 http://www.slideshare.net/ROER4D/roer4d-presentation-to-dfid
24 https://oerworldmap/
In June 2015 Cheryl Hodgkinson-Williams attended a meeting of the Africa Evidence Network (AEN) meeting\(^{26}\) in Johannesburg, South Africa, and found there is a growing group of researchers and practitioners interested in really wanting to interrogate existing evidence and build upon this. The ROER4D project shares this sentiment and has therefore become a member of the AEN.

July 2015 saw Cheryl Hodgkinson-Williams, Stavros Xanthopoylos, Sarah Goodier and Thomas King attending the 2nd African Virtual University conference in Nairobi, Kenya. Cheryl Hodgkinson-Williams presented a keynote on the factors that enable and constrain Open Education practices\(^{27}\), while Sarah Goodier presented on the iterative engagement between curation and evaluation in an open research project\(^{28}\). Also in July the ROER4D team comprising Tess Cartmill, Sarah Goodier, Thomas King and Sukaina Walji met Becky Hillyer (in person) and Leslie Chan (virtually via Skype) from the Open Collaborative Science in Development Network\(^{29}\) (OCSDNet), to discuss evaluation of our respective projects.

Members of the ROER4D Network were privileged to be invited to a seminar with Prof Yrjö Engeström\(^{30}\) and Dr Annelisa Sannino from the Centre for Research on Activity, Development and Learning (CRADLE) at the University of Helsinki in Finland. The seminar hosted jointly by the School of Education at the University of Cape Town (UCT) and the Fundani Centre for Higher Education and the Work-Integrated Learning Research Unit at the Cape Peninsula University of Technology (CPUT) brought together about 50 people all working with an Activity-Theoretical Approach in some kind of research or in development interventions. This was of particular interest to the ROER4D researchers as a number of their projects are using Activity Theory as an analytical framework to describe the changes in the activity systems that may be evidenced when open education (including open educational resources and MOOCs) are introduced in schooling and/or higher education environments.

Further indications of networking activities can be found in the Evaluation section under Evaluating Networking. Also linked is our developing ROER4D Networking Strategy\(^{31}\).

### 4.1.5 Communication

Since July 2014, the ROER4D Communications function has designed and implemented a Communications strategy to inform and lead network communications activities. The Communications advisor, Sukaina Walji, has used the DECI-2 Research Communications framework to develop, implement and run ROER4D’s communications activities. The original assumption of the DECI-2 project was that a utilization focused evaluation (UFE) and Research Communication (ResCom) process would evolved in tandem. For this reporting period the ROER4D Research Communications Strategy\(^{32}\) (March 2014-May 2015) forms the pertinent document.

The ROER4D Communication strategy was developed starting with a review of existing practices to ensure continuity and has included an audience research phase to verify internal stakeholders’ existing knowledge.

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26 http://roer4d.org/1695
27 http://www.slideshare.net/ROER4D/avu-conference
29 http://ocsdnet.org/
30 http://roer4d.org/1876
31 http://bit.ly/1EkrzoC

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
and information needs, as well as preferred media channels and products. Sukaina Walji interviewed all the Sub-project researchers to ascertain their communications needs and preferences as well as to gauge their own intentions for how they planned to communicate their research. She shared the process and results of this activity with the ROER4D network in October 2015 via a webinar (see ROER4D Communications Strategy: Audience Analysis findings\(^33\)) and wrote a detailed report ROER4D Audience Analysis\(^34\) which was shared with the network and the DECI-2 team.

Following the audience analysis phase, the Communications Advisor has worked with the network hub team to develop specific objectives\(^35\) that operationalise the purposes - a process facilitated by the DECI-2 team (Ricardo Ramirez, Dal Brodhead, Charles Dhewa and Julius Nyangaga) who advised on specific wording and on measurement approaches. As the Communications function is being evaluated, the ROER4D Evaluation Advisor, Sarah Goodier, has worked closely with the Communications advisor to develop metrics for monitoring objectives and produces evaluation reports that continue to inform how the communications is functioning and allows informed iteration of the design of communications activities.

The diagram (Figure 3) below summarises an overview ROER4D’s communication channels delineating both external and internal media and tools. These media and tools are the core ongoing operational channels used by the network hub team to enact the ROER4D Communications strategy. They have discrete functions and are designed to work together to amplify ROER4D’s message. While Twitter has been the primary social media channel to establish presence and visibility, Facebook has begun to play a greater role in attracting audiences from specific geographic areas. The website\(^36\) remains at the centre of the communications with the Blog, Project Events and Resources sections serving distinct functions. SlideShare\(^37\) is used as a hosting platform for presentations by network hub researchers allowing for interesting conference strategies and subsequent tracking.

36. [http://roer4d.org/](http://roer4d.org/)
37. [http://www.slideshare.net/ROER4D/](http://www.slideshare.net/ROER4D/)

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
During the reporting period these communications channels have been used to meet the core purposes of the Communications function focussing particularly on establishing the visibility of the ROER4D project and to support both the research capacity development and the networking functions. As the project moves to a phase where findings are being reported, the Communications function will refocus to concentrate on objectives that support knowledge generation and to communicate the findings and results to the networks and audiences that have been identified in the first phase of communications activities. Following discussions at the ROER4D Workshop Meeting in Banff in April 2015, work has started with a review of current objectives and a Phase 2 Communications strategy\textsuperscript{38} in development. This will entail close working with the Curation and Dissemination team to establish appropriate communications outputs and products that build on audience analysis work and experience of interactions with stakeholders thus far.

The process of developing a communications strategy has led to reflective analysis and ongoing learning not only on the specifics of which channels work and which media are appropriate, but also on the process of developing and delivering a communications strategy. Sukaina Walji’s paper ‘Open, ready and agile: Developing a communications strategy for the Research on Open Educational Resources for development (ROER4D) in the Global South project’\textsuperscript{39} and presentation\textsuperscript{40} at the Open Education Global Conference in Banff in April 2015 was a culmination of the reflection process for the first phase of the ROER4D Communications activities.

ROER4D is a case study of DECI-2 and we note with pleasure that their plan to have ResCom and UFE has evolved in tandem and overlapped in the ROER4D project - the only one to date.

4.1.6 Curation and Dissemination

The ROER4D Network Hub has a two-fold curation strategy, employing UCT’s Sakai-based Vula platform as the primary archival and storage space for project products (scoping and interim documents, confidential reports, financial and contracting information, etc.) and Google Drive as a dual curation and collaboration platform for project outputs. Due to the extensive use of Google Docs by the ROER4D Network Hub, and the considerable number of reports generated across our five strategic objectives, three supporting enabling objectives and 18 sub-projects, the Research Administrator undertook a reconciliation and backup exercise to ensure version control and archiving across these platforms.

ROER4D has begun investigating curation and dissemination spaces that comply with our Open Access publishing mandate, correspond with the licensing requirements of the sub-project contracts, and offer the greatest security, accessibility and public profile of ROER4D outputs. We have currently identified Zenodo\textsuperscript{41} as the most promising public content hosting platform for the main body of ROER4D outputs (pending an investigation of the IDRC Digital Library), as well as assessing the various institutional and organisational content-hosting spaces for their ability and willingness to curate individual sub-project reports openly. We

\textsuperscript{38} \url{http://bit.ly/1InunGv}
\textsuperscript{39} \url{http://bit.ly/1HsT05B}
\textsuperscript{40} \url{http://www.slideshare.net/ROER4D/open-ready-and-agile-developing-a-communications-strategy-for-the-research-on-open-educational-resources-for-development-roer4d-in-the-global-south}
\textsuperscript{41} \url{https://zenodo.org/}

\textit{This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.}
have also interrogated the IDRC Digital Library’s capacity to provide a sustainable, open and accessible space for storing and profiling the project’s outputs.

The Curation team has also launched a test instance of the Pressbooks Textbook platform in order to test it as an open publishing solution and potentially a content curation space. Pressbooks Textbook is designed to support the publishing of Open Textbooks, but preliminary investigations of the platform and Skype conversations with the development team indicate potential for its use as a research publishing tool as well. We intend to use the forthcoming interim research reports to trial the usefulness of Pressbooks Textbook in open publishing, specifically its utility as a mechanism for producing outputs in open formats.

The Network Hub has launched a call for participation in an Open Data Initiative focusing on publication of the data arising from ROER4D sub-projects. In order to support activity in this area, the Network Hub is entering into a Memorandum of Understanding with DataFirst, a Social Sciences data repository based at UCT that conforms to international standards and is the only African data service that has been awarded the Data Seal of Approval. We have initiated data publication activity by working with SP4 data as a pilot, and are utilising the SP4 data publication process as a pilot in order to define project protocols around data publication and articulate guidelines for the researcher community.

A provisional publication and dissemination plan outlines the current thinking around the scope and timeframe of ROER4D’s proposed Curation and Dissemination activities from August 2015 to February 2017. It should be noted that the proposed data publication activity forms part of a focus on supporting research data management, which not only addresses open data sharing but also adherence to international protocols around effective stewardship of data in terms of contractual and ethics provisions as well as responsible research conduct. The Network Hub intends for the Curation and Dissemination activity to be offered as a service to the researcher community, and is as such highly reliant on sub-project participation.

4.1.7 Evaluation

During the reporting period there was a change in the evaluation advisor, with the replacement taking place in September 2014. The new evaluation advisor (henceforth called the evaluation advisor) met with the DECI-2 team via Skype for an introduction to utilization focused evaluation (UFE) in late August 2014. Additional online meetings as well as a face-to-face meeting at the ROER4D workshop held in Banff in April 2015 have been held with the DECI-2 team assisting us in drawing up an evaluation strategy, plan and design and providing useful comments and guidance.

Accommodated by the iterative nature of UFE and necessitated by advancements in the project, the evaluation priorities have shifted during this reporting period. The initial priorities were evaluation of the following objectives: 1) the building of research capacity of OER researchers, and 2) the communication of research to inform education policy and practice. The evaluation work and initial evaluation reports are indicated below by the ROER4D objective they relate most closely to.

General evaluation work (across objectives)

42 https://idl-bnc.idrc.ca/dspace/
43 http://opentextbc.ca/opentextbook/part/adapting-an-open-textbook/
44 https://www.datafirst.uct.ac.za/
45 http://datasealofapproval.org/en/
46 http://bit.ly/1TzsLSh

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
As part of the ongoing evaluation of the ROER4D Project and the Network Hub’s activities, two focus groups were conducted during the ROER4D Banff Workshop week (on 21 and 22 April 2015), one with the ROER4D Impact Study (IS) researchers (focus group 1) and one with the adoption study (AS) researchers (focus group 2). The findings have been used to inform improvement in the ROER4D Network hub processes and activities in the key areas of research capacity building (for AS only), communication and networking.

**Evaluating research capacity building**

One of the first activities undertaken by the evaluation advisor in September 2014 was the distribution of an initial survey on research capacity building in the ROER4D project to collect data on the needs of the researchers and establish their research capacity. The findings of this survey were collated in the [ROER4D Evaluation Report: General Research Capacity and Question Harmonisation Survey](http://bit.ly/1M7riwI). Monitoring of the attendance at the webinar sessions has also been ongoing. The [Research Capacity Building Webinar presentation (2014 - July 2015)](http://bit.ly/1DsYYUk) shows these results.

**Evaluating communication**

Ongoing monitoring and evaluation was set up for a variety of the project’s social media tools. The following reports and presentations present the key results from this data collection and analysis:


The evaluation advisor presented at the Open Education (OE) Global 2015 conference held in Banff, Canada, from 22 - 24 April 2015 on developing an evaluation strategy to gain insights into the ROER4D project. This presentation included a general overview of ROER4D’s evaluation approach and focused on examples from the evaluation of the communications objective.

**Evaluating networking**

The growing network of the ROER4D project PI, Cheryl Hodgkinson-Williams was tracked over time. A graphical depiction of her growing project network from May 2012 to July 2015 can be viewed [here (video)](http://www.slideshare.net/SarahG_SS/developing-an-evaluation-strategy-to-gain-insights-into-the-roer4d-multinational-project) and [here (presentation)](http://bit.ly/1gFXi1t).

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[57] http://www.slideshare.net/SarahG_SS/developing-an-evaluation-strategy-to-gain-insights-into-the-roer4d-multinational-project
[59] http://bit.ly/1gFXi1t
It should be noted that networking, in general, has been included in a few of the surveys to get feedback from
the sub-projects about the ROER4D project’s effects on their networking - which the majority have found to
be enabling. However, as networking has no identified Primary Intended User (PIU), no aspects of this
objective are being evaluated that do not have strong ties to the three other key objectives.

Evaluating curation
The ROER4D curation and dissemination strategy is currently being further developed and rework with the
appointment of the Curation and Dissemination Consultant. Evaluation measures and timelines will be
informed by the final curation and dissemination strategy.

The evaluation advisor presented at the 2nd African Virtual University (AVU) conference held in Nairobi,
Kenya, on 2 and 3 July 2015 on the iterative engagement between curation and evaluation in the ROER4D
project. This included the initial strategy to curate and disseminate the project’s outputs and how this will be
evaluated.

Use of evaluation findings
In terms of uptake of the findings by the project, several shifts have occurred as a result. Overall, the logic
model has helped the network hub team in visualising the project and how it has planned for activities to lead
to outcomes. This helped to focus the Network Hub’s attention on the project objectives and allowed the
opportunity to change direction as required.

In terms of research capacity building, it has helped identify which activities were working well and how they
could be optimised going forward as the various sub-projects moved through different phases of activity. This
result in a shift in focus from the question harmonisation process, to researcher presentations, and hub team
presentations and specialist contributions. Changes in the webinar schedule and structure also resulted from
the evaluation feedback.

In the evaluation of communications, insights into the use of Twitter and how the use of Twitter might help
amplify ROER4D’s conference activities have been useful. The findings showed that increasing conference
engagement is aided by the strategic use of Twitter, but that one area of growth might be to engage more in
sustained conversations with stakeholders. This has led to a more focussed and targeted strategy to amplify
ROER4D’s visibility both at conferences and generally in the project using social media. The evaluation
feedback has also revealed that social media use is not prevalent among ROER4D researchers, so internal
communications with ROER4D researchers should focus on other approaches. These results have enabled
reflection and ongoing learning about communications in an applied context. The move of announcements to
the MailChimp platform resulted from a need for metrics, driven by the evaluation function, to assess their
reach and level of engagement.

The prime benefit of the evaluation process in terms of curation was the focus it brought on the intended
purposes and key audiences that the curation activity was designed to communicate with. This allowed for the
originally broad-stroke and generalised policy to become more specific and detailed, and thus more explicit in
terms of action items. The evaluation process has been said by a Network Hub team member to provide a
“much clearer grasp of the effect of our past work and the direction that our future work should go.”

60 http://www.slideshare.net/ROER4D/the-iterative-engagement-between-curation-and-evaluation-in-an-open-research-project-a-utilizationfocused-approach-50125280?related=1
4.2 Partnerships

Partnerships with Commonwealth Education Media Centre for Asia (CEMCA) in India, IT for Change (ITfC) in India, Karisma Foundation in Colombia, Wawasan Open University (WOU) in Malaysia, New Policy Institute in Mongolia and Instituto Profesional Providencia (IPP) in Chile. The added impact study projects administered by WOU, also added The Open University in the United Kingdom, African Virtual University in Kenya, another project at the University of Cape Town, South Africa, Canadian Women for Women in Afghanistan (CW4WAfghan) in Kabul, Afghanistan, Virtual University of Pakistan, The Open University of Sri Lanka, and the University of the Philippines Open University.

4.3 Disciplinary orientation

The disciplinary orientation varies from project to project, as listed in Table 2 below.

<table>
<thead>
<tr>
<th>Project</th>
<th>Discipline</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>All</td>
<td>Primarily post-secondary education</td>
</tr>
<tr>
<td>#2</td>
<td>All</td>
<td>Post-secondary lecturers and students</td>
</tr>
<tr>
<td>#3</td>
<td>All</td>
<td>Higher education lecturers</td>
</tr>
<tr>
<td>#4</td>
<td>All</td>
<td>University lecturers</td>
</tr>
<tr>
<td>#5</td>
<td>Mathematics, Science and Social Science</td>
<td>Secondary school teachers and teacher educators</td>
</tr>
<tr>
<td>#6</td>
<td>All (especially teaching with technology)</td>
<td>Basic and middle school teachers and teacher educators</td>
</tr>
<tr>
<td>#7</td>
<td>Educational Research Methodology</td>
<td>Teacher educators</td>
</tr>
<tr>
<td>#8</td>
<td>All</td>
<td>Institutions and government</td>
</tr>
<tr>
<td>#9</td>
<td>Algebra</td>
<td>Higher Education students and lecturers</td>
</tr>
<tr>
<td>#10.1</td>
<td>Educational practice</td>
<td>Teacher educators</td>
</tr>
<tr>
<td>#10.2</td>
<td>Maths and Science</td>
<td>Teacher training institutions</td>
</tr>
<tr>
<td>#10.3</td>
<td>Educational practice</td>
<td>University lecturers</td>
</tr>
<tr>
<td>#10.4</td>
<td>All</td>
<td>Primary and secondary school teachers</td>
</tr>
<tr>
<td>#10.5</td>
<td>Languages, Math, Science, Islamiat and Pakistan Studies</td>
<td>Secondary and tertiary educators</td>
</tr>
<tr>
<td>#10.6</td>
<td>Educational practice</td>
<td>Secondary School Teachers</td>
</tr>
<tr>
<td>#10.7</td>
<td>All, particularly education, health, and management</td>
<td>Post Graduate Distance Education course developers</td>
</tr>
<tr>
<td>#11</td>
<td>All</td>
<td>Government</td>
</tr>
<tr>
<td>#12</td>
<td>All</td>
<td>Government</td>
</tr>
</tbody>
</table>
4.4 Involvement of research users

As part of the communication strategy, the project team are currently elaborating upon our current understanding of who the research users are and to what ends they may use the research. Meetings at conferences and analysing our followers on Twitter and Facebook have been providing us with additional insight into who is interested in both the project’s research process and research findings. This is an ongoing process.

We have developed relationships with a number of organisations who are interested in using our research in the following ways:

Organisations, projects and individuals are interested in the process of how we are conducting research and using our research process outputs. For example, we have released the ROER4D Bibliography openly for reuse, primarily through the ROER4D newsletter and social media and it is available as an open Google spreadsheet. We are aware that some organisations and individuals have used this resource. The OER Research Hub has shared the bibliography a number of times with their extensive network, as has the Global Graduate Network. Members of the IDRC-funded Open and Collaborative Science in Development Network are interested in our research processes, especially with regards to research communication and evaluation and we have shared reports, presentations and papers of our activities around this with them. Other entities that have expressed interest in the process of research in more general terms include the Open Knowledge Foundation, the eMerge Africa Network and the Africa Evidence Network.

Organisations, projects and individuals are interested in our research to augment their own research programme for adding to the body of evidence about the adoption and impact of OER. We have engaged with a number of researchers in the OER Research Hub about specific projects, and we anticipate that as the projects begin to report findings, this interest will increase. We find our content is shared with other OER researchers and open education projects such as GO-GN, COL, SAIDE, Journal of Learning and Development (Patricia Schlicht).

Organisations, projects and individuals interested in Southern perspectives of OER adoption and impact. For example, the OER World Map programme has specifically requested that ROER4D establish a presence on this nascent mapping project so as to give a Southern balance to OER research. We have met with and had subsequent Skype and email interchanges with Jan Neumann from the OER World Map and hope to be able to contribute when and where possible.

Other potential users:

We reconnected with Cable Green from Creative Commons at Banff and he asked to have a special session with the ROER4D researchers to explain the Institute for Open Leadership (IOL). One of the ROER4D researchers, Werner Westermann (SP9) is currently a fellow for 2015, none of the other ROER4D researchers has yet applied for the 2016 IOL Fellowship.

We have also brokered some relationships between our Sub-projects and other researchers. For example, Cheryl Hodgkinson-Williams introduced Pilar de Saenz (SP6) and OER Research Hub researcher Bea de los

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61 http://bit.ly/1KPyWro
62 https://oerworldmap.org/
63 https://openpolicynetwork.org/iol/
Arcos at Banff and they have already had contact about writing a joint paper comparing the data from SP6 with Bea’s OER research.

Via the Open Knowledge Foundation, ROER4D was approached by Dr Bjoern Hassler from the University of Cambridge (OER4Schools) about a possible joint research agenda for OER research in Africa also with Open University / TESSA / TESS-India. Discussions are still in progress.

4.5 Features addressing gender issues

We have ensured that specific gender questions are included in surveys, which will allow for analysis by gender. In addition, it can be noted that of the current 86 researchers on the ROER4D project, 47 are female. The PI, DPI, Project Manager, Communications consultant, Evaluation advisor, and Curation and Dissemination consultant are all female, as are the Project Coordinator and two research assistants from the WOU team. Five of the seven additional impact studies that joined the project in 2015 have a female lead researcher and the other two have female co-lead researchers.

4.6 Administration by research organization and human resources

The ROER4D programme is hosted at both the University of Cape Town (UCT) and at the University of Wawasan (WOU). The PI and the Network hub team coordinating the whole project and administering the original OER adoption studies projects are at UCT, while the newly added impact studies are administered at WOU. The Cape Town team is hosted by the Centre for Innovation in Learning and Teaching (CILT), in the Centre for Higher Education Development (CHED) at the UCT in South Africa where the Principal Investigator of the ROER4D project is Associate Professor Cheryl Hodgkinson-Williams. She is contracted to the project for one day a week. Associate Professor Patricia Arinto of the University of the Philippines Open University (UPOU) is the Deputy Principal Investigator. Tess Cartmill, the Project Manager, is contracted to ROER4D on a full-time basis. Henry Trotter is a researcher contracted to spend part of his time on the Network project as a Research Capacity Development Officer and the other part on SP4. Thomas King is a part-time administrative researcher concentrating on data curation. Sukaina Walji is the part-time Communications consultant. Sarah Goodier is our part-time Evaluation advisor, while also leading SP11. Michelle Willmers is contracted as the data curation and dissemination manager.

The network hub is supported by UCT’s Research Contracts and Intellectual Property Services (RCIPS), and a contracts manager, Mr Keval Harie, is responsible for the contracts with institutions hosting the various sub-projects. No new contracts were drawn up in the reporting period, but amendments to each of the sub-projects’ contracts were done to align start and end dates and Creative Commons licensing agreements. Award letters to the various local coordinators of SP2 have also been drawn up, so that they can be paid for tasks done in all three regions. SP10 contracts were drawn up by Wawasan Open University for the Impact Studies. SP11 started in 2015 and is being run from UCT, so no additional contract was necessary.

Further support is received from CHED’s finance department which maintains ROER4D’s records on the UCT financial system. In order to maintain control of the finances, we have undertaken to save all documents pertaining to any spending from the ROER4D funds on a secure website on Vula, the UCT learning management system. The system is regularly backed-up and the documents are stored in folders per line item in the approved budget.

https://en.wikipedia.org/wiki/OER4Schools

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
Project management, event organisation, and financial reconciliations are all part of ongoing administrative duties. The network coordination team meets once every week to discuss progress and once a week for working meetings to, for example, update the website or brainstorm. We also had a Strategy Planning session on 20 January 2015 and we came away with a growing plan for 2015 and an emerging vision of our ultimate goal.

The Wawasan Open University in Penang, Malaysia, hosts the 7 ROER4D Impact Studies which are jointly coordinated by Prof Gajaraj Dhanarajan, Hon Director, Institute for Research and Innovation at WOU and Maria Ng Lee Hoon, an Adjunct Research Fellow at WOU, who she resides in Singapore. They are supported by research assistants Khoo Suan Choo in Penang and Vivien Chiam in Singapore.

### 4.7 Forecasted expenditure

In order to use funds optimally and get best possible results from the ROER4D project, we are reworking the budget to focus on editing, research capacity building (one-to-one feedback), curation and dissemination, rather than organise another large group meeting. To facilitate this change we are employing a data curation and dissemination manager. The total budget remains as per approved budget, but allocations differ across most categories.

There is, however, a problem around exchange rates. While we initially received more South African Rand (ZAR) than budgeted, due to the exchange rate of ZAR dropping against the Canadian Dollar (CAD) from the time of budgeting to receiving the grant, this excess soon disappeared as we had to pay grants to other institutions, mainly in US dollars. The ZAR is currently at its lowest level against the USD in 14 years, and is about 20% lower than it was when the budget was drawn up. We have paid all sub-projects the amounts that they budgeted and we estimate that we will have a substantial loss. The Wawasan Open University (WOU) team, administering the Impact Study projects, have also had substantial exchange rate losses. Unfortunately less work will be done if both teams do not receive further assistance from IDRC to mitigate exchange losses.
# 4.8 Project schedule

<table>
<thead>
<tr>
<th>Task name</th>
<th>Start date</th>
<th>End Date</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROER4D Project</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Building</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review research</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure that research outputs are good quality</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit research outputs</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collate and create research outputs for ebook</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Analysis</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collect data from sub-projects and analyse</td>
<td>01 Jul 2015</td>
<td>30 Dec 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall project data analysis</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Research Capacity Building</td>
<td>01 Jul 2014</td>
<td>30 Jun 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online webinar sessions as and when possible</td>
<td>01 Jul 2014</td>
<td>31 Dec 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-to-one interventions as required</td>
<td>01 Jan 2015</td>
<td>30 Jun 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Networking</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ad hoc (online or face to face) meetings with OERHub, OCSNet and others</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend conferences</td>
<td>01 Jul 2014</td>
<td>27 Jun 2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend and present at Open Ed conference in Washington, USA (CHW)</td>
<td>03 Nov 2014</td>
<td>30 Nov 2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend and present at OEC global conference in Banff, Canada (Ali)</td>
<td>01 Apr 2015</td>
<td>30 Apr 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Attend and present at a scoping conference in Addis Ababa, Ethiopia (SW)</td>
<td>01 May 2015</td>
<td>31 May 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend and present at OEC conference in Nairobi, Kenya (CHW, SG, TK)</td>
<td>01 Jul 2015</td>
<td>31 Jul 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend and present at OEC conference in Sun City, South Africa (SW)</td>
<td>01 Oct 2015</td>
<td>31 Oct 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend and present at Open Ed conference in Vancouver, Canada (CHW)</td>
<td>03 Nov 2015</td>
<td>30 Nov 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Attend and present at OEC global conference in Krakow, Poland</td>
<td>01 Apr 2016</td>
<td>30 Apr 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend and present at Online Ed conference 2016</td>
<td>01 Nov 2016</td>
<td>30 Nov 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Communication</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Update communications strategy document</td>
<td>01 Jul 2014</td>
<td>31 Jul 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-align communications to DECI-2 guidelines</td>
<td>30 Jun 2015</td>
<td>31 Jul 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongoing communications using Twitter, Facebook, blogs, newsletter etc</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<td>Ongoing updating of websites</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Curation</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Update curation strategy (data and documents)</td>
<td>01 Jul 2014</td>
<td>31 Jul 2015</td>
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<td>Ongoing curation of resources</td>
<td>01 Jul 2014</td>
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<td>Curation of data</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
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<tr>
<td>Dissemination</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
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<tr>
<td>Create dissemination strategy</td>
<td>01 Jul 2015</td>
<td>31 Aug 2015</td>
<td></td>
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<tr>
<td>Collate research and create ebook</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
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<td>Ensure research reaches relevant audience</td>
<td>01 Jul 2015</td>
<td>27 Feb 2017</td>
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<td>Evaluation</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Update Evaluation design and plan</td>
<td>01 Jul 2014</td>
<td>31 Jul 2015</td>
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<tr>
<td>Re-align evaluation to DECI-2 guidelines</td>
<td>30 Jun 2015</td>
<td>31 Jul 2015</td>
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<td>Ongoing developmental evaluation</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Contracts</td>
<td>01 Oct 2014</td>
<td>30 Jun 2015</td>
<td></td>
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<tr>
<td>Amend and sign MOU between UCT and IDRC</td>
<td>01 Nov 2014</td>
<td>31 Dec 2014</td>
<td></td>
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<tr>
<td>Update Award letters to Local coordinator of SP2 as required</td>
<td>01 Nov 2014</td>
<td>30 Jun 2015</td>
<td></td>
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<tr>
<td>Contracts for SP10 (to be done by Wawasan OU)</td>
<td>01 Nov 2014</td>
<td>30 Mar 2015</td>
<td></td>
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<tr>
<td>Employ researcher for SP11</td>
<td>01 Oct 2014</td>
<td>30 Mar 2015</td>
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<tr>
<td>Employ data curation and disseminator</td>
<td>01 Jun 2015</td>
<td>31 Aug 2015</td>
<td></td>
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<tr>
<td>Administrative and financial systems</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Ongoing admin and financial activities</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Project meetings (every week) and ad hoc discussions</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Workshops / meetings</td>
<td>02 Sep 2014</td>
<td>31 Jan 2016</td>
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<tr>
<td>Hold strategic planning meeting day out of office (Jan 2015)</td>
<td>21 Jan 2015</td>
<td>21 Jan 2015</td>
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<tr>
<td>Workshop 2 - Banff, Canada April 2015</td>
<td>02 Sep 2014</td>
<td>24 Apr 2015</td>
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<tr>
<td>Arrange venue, flights and accommodation</td>
<td>02 Sep 2014</td>
<td>15 Apr 2015</td>
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<tr>
<td>Arrange coordination with OEC conference</td>
<td>02 Sep 2014</td>
<td>15 Apr 2015</td>
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<tr>
<td>Arrange agenda and time-table</td>
<td>02 Sep 2014</td>
<td>15 Apr 2015</td>
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<tr>
<td>Hold workshop and attend OEC conference</td>
<td>20 Apr 2015</td>
<td>25 Apr 2015</td>
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<tr>
<td>Workshop for Impact Study researchers in Sri Lanka</td>
<td>10 Jan 2016</td>
<td>14 Jan 2016</td>
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<tr>
<td>Hold strategic planning meeting day out of office (Jan 2016)</td>
<td>20 Jan 2016</td>
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<tr>
<td>Technical and Financial Reports to IDRC</td>
<td>01 Aug 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Final reports</td>
<td>02 Jan 2017</td>
<td>24 Feb 2017</td>
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<tr>
<td>Leadership</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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<tr>
<td>Ongoing interventions and guidance to all team members and researchers</td>
<td>01 Jul 2014</td>
<td>27 Feb 2017</td>
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</table>

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
4.9 Technical and other support and administration by IDRC

Matthew Smith, our IDRC programme manager, provides solid support and is in regular email and Skype contact. Phet Sayo took over temporarily from Matthew while he was on paternity leave. Both were always approachable. Paul Viveiros gave much needed financial advice when we submitted our Financial Report. He has been replaced by Mano Buckshi. We have also had another amendment to the Memorandum of Grant Conditions (MGC), extending the end date and synchronising reporting dates to accommodate the newly included Impact Studies projects. We had great support from Matthew, Melanie Bougnie and Laurent Elder when we needed invitations to Canada for visa purposes for all our researchers from various countries to attend the ROER4D workshop and Open Education Global Conference in Banff in April 2015. Being invited to a meeting with other IDRC grantees and the IDRC leadership, President Jean Lebel; Acting Chairperson Monte Solberg; Governor; Gordon Houlden; Vice President Programs and Partnerships Stephen McGurk, and Regional Director for sub-Saharan Africa Simon Carter, provided some insight to the IDRC thinking. While at a later meeting, also in Cape Town, Naser Faruqui gave us valuable time and encouragement.

5 Projects outputs and dissemination

5.1 Information sharing

Internet and social media:
ROER4D website: [http://roer4d.org/](http://roer4d.org/)
ROER4D Blog: [http://roer4d.org/category/blogarchive](http://roer4d.org/category/blogarchive)
Twitter URL: [www.twitter.com/roer4d](http://www.twitter.com/roer4d)
Twitter handle: @ROER4D
Facebook page: [https://www.facebook.com/ResearchOERforDevelopment](https://www.facebook.com/ResearchOERforDevelopment)
SlideShare page: [http://www.slideshare.net/roer4d](http://www.slideshare.net/roer4d)

Google Docs:
Most of our documents are created and curated on Google Drive for sharing and collaborating. We have created a folder structure on Google Drive in line with the areas of our project objectives. Included are documents containing our Network coordination team meeting minutes, which serves as a log of our activities.

Vula:
On the UCT Learning Management System, Vula, we have two project sites:

1) ROER4D: where all researchers have access and each sub-project has a space to store documentation. We also share research papers and send announcements (which send emails but are also archived) to all. Links to video recordings of Question Harmonisation sessions on the UCT Adobe Connect meeting room for ROER4D, are sent to the researchers via announcements, enabling those unable to attend live online sessions to participate.

2) IDRCOER: where the management team, finance support and IDRC have access. Here we keep records of all financial transactions, contracts, other relevant documentation and an email archive.

5.2 Knowledge creation

The knowledge creation objective is being met primarily through research by the Sub-projects, but also through the ROER4D hub and even external researchers investigating the ROER4D project itself. In their summative and formative evaluation of the quality of openness outcomes of projects in IDRC’s Information
and Networks programme, Reilly and McMohan (2015) highlight ROER4D as a positive “outlier” as we “overtly focus on causality, including on certain specified mechanisms that lead to development outcomes”.

The ROER4D research community conducted two keynote addresses (both by PI Cheryl Hodgkinson-Williams in 2015) and extensive conference presentations. See Appendix B for a full list of book chapters, keynote addresses, conference papers and presentations.

Draft research reports from Sub-project 1:
South America Overview, Chile, Colombia, Peru
Sub-Saharan Africa Overview, Ghana, Kenya, South Africa
South and Southeast Asia Overview, India, Indonesia, Malaysia

Outputs and outcomes expected from sub-projects can be found in Appendix C.

5.3 Training

No formal training was undertaken by the Network hub team during the reporting period, but mentoring by DECI-2 continued for the communications and evaluation advisors. Tess Cartmill attended a presentation of Research Professional Africa by the UCT Research Office, which highlights research opportunities. Sarah Goodier and Tess Cartmill were also fortunate to be able to attend a short Introductory Course on the quantitative data analysis tool SPSS on 7th August 2015.

5.4 Capacity building

5.4.1 Institutional reinforcement and sustainability (equipment, training, admin skills)

The complications arising from sub-contracting and payments made to multiple foreign based institutions and individuals has certainly been a learning curve for all contracting and finance staff involved at UCT, as well as for the Project Manager. Furthermore the processes around research ethics, project management, communications and evaluation are all skills being learnt and shared as far as possible.

5.4.2 Increased research and admin skills

Apart from skills mentioned in 4.1.2 Research Capacity Building, we are encouraged the ROER4D team to take an Open Course, run by the OERHUB School of Open, on OER research, in September 2014, and will be reminding them of the re-run of the course in September 2015.

5.4.3 Capacity building of women or marginalised social groups

As over half of the whole ROER4D team are female, and we are learning a great deal on this project, capacity is certainly being built. And as ROER4D is researching OER for development, the education of marginalised social groups is a natural long term goal.

6 Impact

6.1 International reputation

UNESCO Open Educational Resources Chair

Perhaps the key indication of international reputation is the request from Abel Caine UNESCO Programme Specialist for Open Educational Resources (OER), requested that the PI of the ROER4D programme, Cheryl

Hodgkinson-Williams, apply for a UNESCO OER Chair - the first in Africa. The ROER4D project would be considered as this OER Chair’s main OER project. This request has been endorsed by two other UNESCO OER Chairs so far and supported by the PI’s Director at the hosting institution, the University of Cape Town. The application process will commence in September 2015.

Open Policy Network
Cable Green, Director of Global Learning from Creative Commons and the Open Policy Network, approached IDRC Program Officer Matthew Smith and the ROER4D PI to arrange for a special presentation to the ROER4D researchers, present at the Open Education Global conference in Banff in April 2015, about the possibility of a few of them joining the Institute for Open Leadership. The aim of the IOL is to train new leaders in education, science, and public policy fields on the values and implementation of openness in licensing, policies, and practices. One of the ROER4D researchers, Werner Westermann from Chile (SP9), is already an IOL Fellow.

World OER Map
The ROER4D PI and ROER4D Communications Officer, Sukaina Walji, were approached by Dr Rob Farrow of the Hewlett Foundation-funded OER Research Hub in the UK and by Jan Neumann, Head of Legal Affairs and Organization, Project Manager of the Hewlett Foundation-funded OER World Map Project, to contribute to the specifications on the OER World Map Project as they see ROER4D as a “special use case”. Virtual meetings were undertaken, but the amount of work to make ROER4D a “special case” was too extensive to be built into the current workload of the ROER4D team. However, ROER4D will still contribute to the map and become involved as much as possible within the constraints of the ROER4D project imperatives. To this end dissemination via the ROER4D documents via the OER World Map is part of the ROER4D Curation and Dissemination Strategy.

Involvement in hosting of the Open Education Global conference in March 2017
Our host department the Centre for Innovation in Learning and Teaching (CILT), under the leadership of Glenda Cox (SP4) and with support from the CILT HOD, Associate Professor Laura Czerniewicz, who is also the SP10.3 Lead Researcher, has agreed to host the Open Education Global conference in March 2017. ROER4D Project Manager Tess has been advising and assisting with initial negotiations with conferencing venues and the bidding process. This is a very prestigious event and serves as a celebration of 10 years of the Cape Town Open Education Declaration and five years of the Paris OER Declaration. Unfortunately this event occurs after the end of the project date and no funds are available for ROER4D researchers to present their findings at this conference. The ROER4D PI is exploring ways to attract funds to best leverage the dissemination of the ROER4D findings at this important conference.

Case study in utilization focused evaluation and research communication
As the only case study of DECI-2 to successfully develop utilization focused evaluation and research communication in tandem, the ROER4D project has been used as an example for other DECI-2 projects (i.e. Privacy International and Open Science). The ROER4D team have also been instrumental in advising DECI-2 on the use of Creative Commons licences to better match their intentions for the use of their resources.

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66 https://openpolicynetwork.org/
67 https://openpolicynetwork.org/iol/
68 https://oerworldmap.org/
69 http://bit.ly/1TzSLSh

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
6.2 Regional reputation

Keynote invitations
As a measure of increasing regional reputation, the PI presented keynote addresses at the international online Transform 2015 Research Colloquium\(^70\) from 7-10 April 2015 and the 2nd International Conference of the African Virtual University\(^71\), Nairobi, Kenya, from 1-3 July 2015. The PI has also been approached to be a keynote speaker at the 3rd E-Learning and Distance Education Conference\(^72\) from March 14-15, 2016 in Lahore, Pakistan and was put forward as a keynote speaker by one of the Advisory Group members, Dr Savithri Singh, to present a Global South perspective at the 2015 CC Global Summit in Seoul, South Korea from 15-17 October 2015. Although the latter suggestion was not taken up by the programme committee for this conference, it has had an important spin-off in that the PI has now been included on the 2015 CC Global Summit programme emails.

Advice to other OER projects in Africa
The PI was approached by Brenda Mallison, a consultant at OER Africa\(^73\), about copyright queries in their a participatory action research study on OER use and development at the Open University of Tanzania\(^74\) (OUT). Brenda’s project is part of the Hewlett funded OER Africa Participatory Action Research study that is working with four Higher Education Institutions in Africa to develop a deeper engagement with OER and OER practices.

6.3 National reputation

Government copyright conference in South Africa
As a measure of increasing national reputation the PI was approached by the South African government’s Department of Trade and Industry to attend an invitation-only Copyright Amendment Bill Conference in Johannesburg on 27 August 2015. Due to workload constraints the PI was not able to attend, but it is a measure of success to be on the invitation list.

6.4 Institutional reputation

Advice on Communication, Evaluation and Curation
The ROER4D Communications Consultant, Sukaina Walji, was asked to consult to the Centre for Innovation in Learning and Teaching on the job description for a newly created Communications Officer post in the department. She was subsequently asked to join the selection committee and was involved in the interviews. The ROER4D Evaluation consultant, Sarah Goodier, was asked to provide advice to the Staff Development cluster on evaluation of their outcomes as a group for reporting purposes as well as provide input into a funding proposal for a potential open textbooks project. Sarah Goodier also participated in the MOOC team’s workshopping of their evaluation strategy, based on an evaluation plan prepared by the UCT Institute for Monitoring and Evaluation, providing input on potential measures and what it may be important to monitor and evaluate.

Teaching about Research, Communication and Evaluation
The PI and the ROER4D Communications Consultant, Sukaina Walji presented a short seminar on OER for the Postgraduate Diploma in Educational Technology students in March 2015 and the ROER4D Evaluation Consultant, Sarah Goodier, will be running a short seminar for the same group of students in September 2015, but focusing on Utilization Focused Evaluation and the evaluation of the ROER4D Project as a

\(^{70}\) http://transform2015.net/
\(^{72}\) http://eldec.vu.edu.pk/
\(^{73}\) http://www.oerafrica.org/
\(^{74}\) http://www.out.ac.tz/

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
practice-based example. Sukaina Walji was interviewed by Dr Nicola Pallitt to talk about ‘Twitter in Academia’ using her ROER4D work as the main example, which served as a resource for three courses she is teaching at UCT.

**Recommendations to the Faculty on how UCT can better support large research projects**

The PI contributed to a survey on how UCT can better support large research projects such as ROER4D.

### 6.5 Sub-project Impacts

Impact from sub-projects as gleaned from their Technical Reports:

**SP1: Desktop Review of OER in the Global South**

The impact of the desktop reviews can be determined by the usage stats (see Section 3.2) and at a later stage the number of citations and sites where the documents are re-publicized (e.g. Docs-Library.com).

**SP2: OER Differentiation Survey in the Global South**

There are no direct impacts so far, although networking has led to Dutra being appointed as a co-supervisor of Judith Pete’s PhD on OER and being interviewed for The Guardian on open education.

**SP3: Academics’ Attitudes to OER in India**

It is anticipated that the ATOER scale developed as part of the interview protocol for this project will make a long-term contribution to future instrument development in this field which is aimed at determining the influence of teachers’ attitudes towards OER. As a result of the workshops organised, the project created better awareness about OER, and developed partnership with the following four institutions:

- Maulana Azad National Urdu University (MANUU), Hyderabad
- Krishna Kanta Handiqui State Open University (KKHSOU), Gauhati
- Krishna University, Machlipatnam
- Centurion University of Technology and Management (CUTM), Bhubaneswar

**SP4: Academics’ Acceptability of OER in South Africa**

The project conducted workshops at the following three South African institutions in March 2015:

- University of Cape Town (a research-intensive, urban residential institution)
- University of Fort Hare (teaching-focused, historically disadvantaged, rural institution)
- University of South Africa (UNISA) (large-scale distance education institution)

At Fort Hare the workshop had a significant impact on participants from an “awareness raising” perspective. There was, however, a more palpable impact at UNISA due to the fact that participants’ nascent OER knowledge was raised to a point where they could start creating and/or using OER. The UNISA workshop was a great success and led to the promotion of five more OER workshops for the year, drawing on and inspired by the SP4 workshop, which would be facilitated by the UNISA OER officer. The impact of the workshop materials has exceeded all expectations:

- Glenda Cox: *Openness in Higher Education: Open Educational Resources* [2,914 views; 11 facebook shares; 8 tweets; 3 re-tweets]
- Henry Trotter: *How and where to find Open Educational Resources* [1,638 views; 106 facebook shares; 23 tweets; 12 re-tweets]

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75: [https://www.youtube.com/watch?v=Q69mB5arHEA](https://www.youtube.com/watch?v=Q69mB5arHEA)

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
SP5: Collaborative Co-creation of OER in India

The reach and impact of the project is evidenced by the fact that of the current 15,000-strong teachers' community of learning, around 67% are part of the project’s core Participatory Action Research (PAR) group. The Subject Teacher Forum (STF), the in-service teacher-education program of the Government of Karnataka in India, is co-funded by the Rashtriya Madhyamika Shiksha Abhiyaan (RMSA) programme of the Ministry of Human Resources Development (MHRD), Government of India, World Bank and DFID who, together annually constitute a Joint Review Mission (JRM) to review programme design and implementation and make policy recommendations. The 3rd JRM (2014) interacted with STF members and its review report


stated that it: "… observed an impressive in-service training program in Karnataka which incorporates ICT in the training … teachers across 34 districts have learnt to use digital tools and resources for their subject teaching..." and "It is to the advantage of RMSA as well of the country as a whole if good practices and successful innovations are widely disseminated and all States adapt them taking into account the local circumstances.” Based on the positive review received, Gurumurthy K, the Lead Researcher from IT for Change (ITfC) on the ROER4D project, was invited to be a member of the 4th JRM in August 2014. The 4th JRM review report


recommends that: "RMSA should support and build capacity in collaborative resource creation by teachers and teacher educators; e.g. OERs, podcasts, video, animations, virtual labs. etc." It went on to state that: "RMSA should mandate that all resources created under RMSA should be released as 'open educational resources' ...". The sub-project has attracted the attention of the National Council for Educational Research and Training (NCERT) as well as the state governments in India, who are keen to explore a similar participatory approach to OER creation and teacher professional development. The Government of Telangana has engaged IT for Change to conduct similar capacity building workshops with their mathematics, science and social sciences teachers to develop OERs. The Assam Government is also engaging with IT for Change to initiate a similar program in their state.

SP6: Collaborative Co-creation of OER in Colombia

A first impact of the project is having been able to influence teachers’ practices through the use of OER and reflection on its advantages and benefits. The greatest prospect for change in teachers’ practice was related to the fact that teachers now saw themselves and their students as co-producers-authors of content in context. A second impact, achieved as a result of the social and advocacy activities around educational experiences with OER, was the interest generated in the project from other educational stakeholders. This has been manifest through invitations to give talks about copyright and Creative Commons licensing, and through an agreement between the Secretary of Education of the Municipality of Popayan, the organisation of a course for teachers of public schools in the city of Popayan and at the University of Cauca.

By June 2015, the project team had provided advice in the creation of 19 OER for developing thematic units in different areas, of which 13 are learning objects crafted with the free software eXeLearning; five are educational blogs (these first two types of OER reuse many simple resources or incorporate open-licensed resources); and one is a working guide for print or digital reuse. Thirteen of these resources have been

National Council for Education Research and Training, the apex body in India for curriculum and teacher education

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
prepared individually and six have been created collectively by 22 project-associated teachers. Of these resources, 11 are openly licensed and available on the coKREA project website. As a result of project interaction, the coordinator of the National Ministry of Education strategy to promote OER has expressed an interest in the results and process of our project. He has written an article about good practice and made specific reference to our project. An interview on the project was also shown on the ‘Perspectiva’ TV programme (produced by the Division of Communication of the University of Cauca) on copyright and Creative Commons licensing.

**SP7: OER Integration for Course Development in Malaysia**
Engagement with course writers led to improvement in their conceptual understanding of and attitude towards OER and its use, while learner engagement showed positive impact on their conceptual understanding of and attitude towards OER. All five modules of the course on Research Methodology in Education will be available as OER with a CC licence.

**SP8: OER Adoption and Use in Mongolia**
It is currently too early in the project to speculate about possible impact. Impact will need to be assessed at a later stage of the project and after its completion.

**SP9: OER Use in Chile**
The Lead Researcher has engaged incoming authorities at the Center of Education and Technology (Enlaces), the Ministry of Education's digital technology programme for schools, and agreed to a follow-up meeting at a later stage to report back on the final results of the study. Enlaces has shown an interest in the project’s findings in terms of informing their future approach around utilisation of personalised digital learning platforms.

**SP10.1 to 10.7:** It is too early for these projects (started in March 2015) to show impact achieved.

**SP11: Mapping Educational Expenditure in South Africa**
The interview with the Department of Basic Education impacts the relationship building with government.

**SP12: Educational Expenditure in South America**
Sub-project 12, led by Carolina Botero of the Karisma Foundation in Colombia, has almost completed its study identifying and analyzing public policy and the investment and expenditure that the governments of Argentina, Chile, Colombia, Paraguay, and Uruguay commit to make in the development and procurement of textbooks, books, and digital content for primary and secondary education (K-12) and Higher Education institutions. Initial findings suggest that documentation of government expenditure on educational materials varies across the region, but on the whole is not readily accessible to the public because of the way budgets are reported, disorganisation, and opaque lines of responsibility. The researchers recommend the institution of open government initiatives so that information on investment in educational materials is more readily available for public scrutiny.

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79 https://karisma.org.co/cokrea/?p=731
80 https://vimeo.com/106326783
81 http://www.enlaces.cl/
7 Recommendations

7.1 Recommendation 1: Provide time and expertise for curation of open data

In the first ROER4D Technical Report we explained the need for additional resources for managing the curation and dissemination of project outputs as ‘open data’ (documents and data) to fulfil our project intentions and contractual obligations. We undertook to use savings that had accrued as the ROER4D research assistant started on 1 November 2013 which resulted in lower spend to date, but realised that it was not only additional time that we needed, but expertise. We raised this issue at the AG Meeting in Banff in April 2015 and received permission to reallocate funds to employ a full-time Curation and Dissemination Manager until the end of the project. Curating materials openly is still relatively new and uncharted territory in research projects. As the Curation and Dissemination section above (4.1.5) indicates, we have made great strides in the two months (July-August 2015) during which we have had the benefit of Michelle Willmers’ curation and dissemination expertise. Nevertheless, there is still a long road ahead as we negotiate a Memorandum of Understanding with the open data service, DataFirst\(^{82}\) at UCT; move from a test instance to full implementation of the open textbook platform, PressBooks Textbook\(^{83}\); share project outputs on public content hosting platform Zenodo, and archive project outputs on the IDRC Digital Library.

We are delighted to know that the IDRC is busy planning a pilot study in curating and disseminating research documents and data openly. We look forward to participating and contributing to this timely initiative.

7.2 Recommendation 2: Provide time and expertise for supporting research capacity building

The original ROER4D proposal set out a plan for mentoring and two workshops as ways of supporting research activities in each of the Adoption Study projects. The subsequent ROER4D Impact Study proposal included two research workshops but limited mentoring as it was assumed that all of the ROER4D-IS researchers would be seasoned researchers. With respect to the Adoption Studies, it became apparent quite early on that despite the input at the first workshop by the PI, the statistician and the qualitative analyst (specifically contracted for this workshop), the researchers needed more specific research capacity building than the mentors had time and/or specific knowledge to provide. We therefore allocated some funds to employ a part-time researcher who, in collaboration with the PI, would manage and/or undertake a series of online research capacity building processes, including the harmonization of research questions (See Section 4.1.3).

Even though there has been some success with this intervention as indicated by the Sub-project Lead Researchers, much of the research capacity building has taken the form of peer-reviewing research instruments and one-to-one feedback on technical and/or draft research reports. The shift in this reporting period has been to supporting researchers to write their reports in English (some original documents are in other languages) and in a scholarly genre.

We have underestimated the need for the services of statistician George Sciadas, who played a key role in both Sub-projects 2 and 9 and whose expertise we need in the final report write-ups. We may need to use some of the “emergency funds” for this purpose.

With respect to the Impact Studies, we were able to contract the services of Dr Rob Farrow to assist during the Impact Methodologies Workshop in Penang and the ROER4D Workshop at Banff. However, due to unfavourable exchange rates it was too expensive to continue to have Dr Farrow to mentor all the Impact Studies. DPI Prof Patricia Arinto consequently released some of her main ROER4D activities and took on the

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\(^{82}\) https://www.datafirst.uct.ac.za/

\(^{83}\) http://opentextbc.ca/opentextbook/
mentoring support for the seven Impact Studies. This has been a challenging task too as several researchers have needed detailed advice and support, specifically with respect to research instrument development, within a very short space of time.

For future projects we recommend that time and resources be set aside (as for the communication and evaluation) for research capacity building in various forms, including research guidelines, webinars, formal research “peer-assist” strategies, and one-to-one support from mentors and/or consultants with specific skills for different phases of the research project (e.g. research question development, conceptual clarification, data collection, data analysis, and report writing).

7.3 Recommendation 3: Support for co-authoring and open access publishing

The key objective of the ROER4D project is knowledge-building, but the limited duration of the project and the time it takes to write up papers and publish these are slightly at odds and may mean that we do not sufficiently leverage possible publication within the period of the project. Although we are already in discussions with the editors of an open access journal, IRRODL, to have a special issue for ROER4D articles, this is set for the second half of 2017, beyond the project end-date of February 2017.

We recommend that the PI actively engage with the IDRC to identify strategies and funding (perhaps from other donor agencies) to publish the outputs from the Sub-projects as well as additional outputs from the ROER4D hub about Research Capacity Building, Communication for Research Projects, Curation and Dissemination of Open Research Data, and User-focused Evaluation for Research Projects.

7.4 Recommendation 4: Scope the role of the PI and DPI in relation to the size of the projects

The original ROER4D project was scoped to include 12 projects and SP10 was earmarked for about three OER impact studies. However, the IDRC was able to secure additional funds and grant this to Wawasan Open University, but still under the auspices of the ROER4D project. An additional seven projects were added to the original 11, bringing the total number to 18. The ROER4D Hub team at UCT has thus had its workload increased at the coordination level, and while some activities can be easily and inexpensively accommodated, other activities have been more time consuming than originally anticipated (e.g. workshop planning meetings, adjudication of Impact Study Proposals, additional travel commitments, review and curation of additional documents and data). This is a particular challenge for the PI and DPI who are both employed at their respective universities with a range of commitments and limited time on the project. One way in which the ROER4D team has accommodated these challenges has been to reallocate some of the activities scheduled for completion by the DPI to the PI and Project Manager (e.g. evaluating the technical reports and co-writing the interim reports) and to have the DPI attend a meeting in Penang as she is geographically closer than the PI.

However, going forward, the PI’s time (one day per week) and DPI’s time is still under pressure. The appointment of a full-time Curation and Dissemination Manager will assist a great deal with the reading and commenting on technical reports and draft research reports, but does not address the additional time spent in meetings and travelling. A further strategy is to investigate whether the hosting institution would consider allowing the PI to work on the ROER4D project for an additional four hours per week. The PI is working for about 8-10 hours over the weekends already, so encroaching into the work week is the only strategy left. For future projects we recommend that the IDRC consider the size of the project in relation to the time allocated for a PI and DPI to execute their duties.
7.5 Recommendation 5: Allocate funds for exchange rate losses

The ROER4D project is quite a complicated project in that it spans three regions, 26 countries, about 43 institutions, 86 researchers, 10 mentors, two full-time network coordination team members, and eight part-time members. The sharp depreciation of currencies in emerging markets in Asia, Sub-Saharan Africa, and South America is having a negative effect on the cross-border payments.

While we noted exchange rate losses as a possible risk in the original ROER4D proposal, the projected risk included only the possible fall of the ZAR in relation to other currencies. What has transpired since has included the fall of the Canadian Dollar (CAD) and the Malaysian Ringgit (MYR), which has had a deleterious effect on the re-granting and reimbursements to our Malaysian colleagues and on the payments made to projects and service providers in USD or GBP. Because the IDRC requires the budgeting of projects in the currency of the requesting country, this is how the items are budgeted for, but in some instances UCT was not in a position to pay the grant in the local currency (e.g. Mongolian Tugrik (MNT) and Malaysian Ringgit (MYR)) and this had to be paid in USD, which had a consequent impact on the amount of money received by the Mongolian and Malaysian projects.

8 Conclusion

The ROER4D team looks forward to the next phase of the project which promises to be even more productive than the second phase. The Adoption Study researchers are poised to write up their empirical work having mostly completed their field work, while the Impact Studies researchers are busy with their field work having mostly completed the contracting, staffing, literature reviews, and instrument development processes.

Our highlight will be finding innovative ways to publish the outputs emerging from this project to inform practice, policy, and the emerging scholarly area of open education and in so doing, build the research profile of Global South researchers.
9 References


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http://www.tandfonline.com/doi/pdf/10.3200/CHNG.38.5.8-17 [Last accessed 22 August 2014]


### Appendix A - List of Researchers

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<td>Researcher - SP10.2</td>
<td>Marilena Cabral</td>
<td>AVU - African Virtual University</td>
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<td>Researcher - SP10.2</td>
<td>Tom Ojwang</td>
<td>AVU - African Virtual University</td>
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This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
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| Statistician, and mentor to SP2 | Dr George Sciadas | Statistics Canada | george.sciadas@rogers.com |
Appendix B - ROER4D Book chapters, keynotes, conference papers & presentations

**Book chapters:**


**Keynote papers and presentations at conferences:**


**Conference papers:**


This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.
Conference presentations:


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**Institutional / funder presentations:**

**Appendix C - Overview of projects, outputs and outcomes**

**Specific projects, outputs and outcomes. Shaded sections correspond to sub-projects with some collaborative elements**

<table>
<thead>
<tr>
<th>Project</th>
<th>Specific projects</th>
<th>Outputs</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td>#1</td>
<td>Desktop research of existing literature OER initiatives, policies and research in each of the regions Asia: Prof Raj Dhanarajan Sub-Saharan Africa: Jenny</td>
<td>Three regional reports on OER projects, policies, research &amp; researchers in the Global South</td>
<td>Use as background information for the researchers in the various regions in the ROER4D project and to contribute to the knowledge base to benchmark OER activity in these regions during the period 2013-2016.</td>
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<tr>
<td>#</td>
<td>Project Title</td>
<td>Description</td>
<td>Contribution to the Knowledge Base</td>
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<td>#2</td>
<td>OER Survey in South America, Sub-Saharan African and Southeast Asia</td>
<td>Survey instruments in at least three languages that can be used to ascertain creation, awareness, access, reuse &amp; perceived value of OER by lecturers and students. A cross-regional survey from selected countries in South America, Southeast Asia and Sub-Saharan Africa. Three regional reports, one from each of the regions to highlight specific policy and practice recommendations. Nine country reports – 3 from each of the regions.</td>
<td>Contribute to the knowledge base by creating survey instruments that can be used across most of the projects in this study and be available for use by other OER researchers. Contribute to the knowledge base by establishing the current awareness of OER, access to various OER repositories, types of OER use (creation, use, re-use, curation and distribution) to provide empirical evidence to policy makers at governmental and institutional level of actual OER uptake of OER by post-secondary education lecturers and students in selected countries in the Global South.</td>
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<td>#3</td>
<td>Teachers’ attitudes, motivation and conceptions of quality and barriers to OER in India</td>
<td>A country report (India) on factors enabling and/or constraining post-secondary education lecturers’ creation, reuse, curation and distribution of OER. A cross-country report (India &amp; South Africa) on factors enabling and/or constraining post-secondary education lecturers’ creation, reuse, curation and distribution of OER (Projects 3 &amp; 4).</td>
<td>Contribute to the knowledge base by establishing the reasons why lecturers choose to create, reuse, curate, distribute OER or not to highlight how personal, institutional, legal, cultural, technological issues need to be addressed to optimise the uptake of OER by lecturers.</td>
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<td>#4</td>
<td>Research into the social and cultural acceptability of OER in South Africa</td>
<td>A country report (South Africa) on factors enabling and/or constraining post-secondary education lecturers’ creation, reuse, curation and distribution of OER. A cross-country report (India &amp; South Africa) on factors enabling and/or constraining post-secondary education lecturers’ creation, reuse, curation and distribution of OER (Projects 3 &amp; 4).</td>
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<td>#5</td>
<td>Collaborative co-creation of OER by teacher educators and teachers in India: A participatory action research study</td>
<td>One country report detailing a model of OER creation, reuse, curation and distribution (India). A cross-country report (India, Colombia, and Malaysia) detailing a model of OER creation, reuse, curation and distribution (Project 5, 6 &amp; 7). A website detailing the OER model – possibly in more than one language (TBA).</td>
<td>Build capacity and contribute to the knowledge base explaining how teacher educators co-create OER and by developing a model for OER creation, reuse, curation and distribution by others in the Global South or elsewhere.</td>
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<td>#6</td>
<td>Collaborative co-creation of OER by teacher educators and teachers in south-western Colombia: A participatory action research study</td>
<td>One country report detailing a model of OER creation, reuse, curation and distribution (Colombia). A cross-country report (India, Colombia, and Malaysia) detailing a model of OER creation, reuse, curation and distribution (Project 5, 6 &amp; 7).</td>
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<tr>
<td>#</td>
<td>Description</td>
<td>Details</td>
<td>Influence</td>
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| 7  | Models of reuse of OER by curriculum developers and teachers: A participatory action research study in institutions in Malaysia and India | Research Lead: Prof Mohan Menon Wawasan Open University, Malaysia  
Mentor: Dr Savithri Singh  
One cross country report detailing a model of OER creation, reuse, curation and distribution (Malaysia and India)  
A cross-country report (India, Colombia, and Malaysia) detailing a model of OER creation, reuse, curation and distribution (Project 5, 6 & 7) |  
Influence policy by providing recommendations for national and institutional policy and build capacity and contribute to the knowledge base by developing a model of OER practice for lecturers |
| 8  | Exploring the cultural-historical factors that influence OER adoption: The case of Mongolia’s higher education sector | Project lead: Mr Batbold Zagdragchaa  
Mentor Dr David Porter, BCcampus, Canada  
A country report (Mongolia) detailing governmental, institutional and individual lecturer-level enablers and constraints for OER adoption |  
Influence practice by establishing a didactic model for the use of OER  
Influence policy by providing recommendations for national and institutional policy |
| 9  | Use of OER in developing the logical-mathematical, literacy, science and critical thinking skills of first year higher education students | Project lead: Mr Werner Westermann Instituto Profesional Providencia, Chile  
A case-study report on student use of OER to develop the logical-mathematical, literacy, science and critical thinking skills and in educational practices. |  
Inform policy-makers and funders about the impact of the use of OER on cost savings, teaching practice, student performance and/or policy change |
| 10 | Impact Studies                                                              | Seven impact studies have been added to provide evidence on the impact of the use of OER on various factors |  
Inform a global audience of national and institutional policy makers, teacher educators, researchers and teachers |
| 10.1 | Engaging with the ‘world beyond’ - the impact of OER on practices in teacher education institutions in East Africa | Project Lead: Dr Freda Wolfenden  
A phenomenological study which examines the impact of OER engagement on the practices of teacher educators at institutions in Mauritius, Rwanda, Tanzania and Uganda which have been involved with prior OER initiatives. Outputs are shared via three strategies for (1) communicating research activities (ROER4D blogs, Facebook, Twitter and newsletter), (2) sharing outputs (OU’s iTunesU and YouTube channels & research repository, Open Research Online) and (3) sharing data (OU’s data sharing platform) |  
Inform a global audience of national and institutional policy makers, teacher educators, researchers and teachers |
| 10.2 | Assessing the impact of OER adoption in expanding access to quality teacher education in sub-Saharan Africa: The case of an ICT-integrated multinational teacher education program in math and science | Project Lead: Dr Atieno Adala  
A mixed methods case study that will review institutional reports, course artefacts and interview institutional representatives about the impact of the use of existing OER made available by the AVU to strengthen institutional capacity to train more student teachers and improve the quality of the teachers trained as well as the impact of the use of these OER on curriculum development practices. Outputs made |  
To inform administrators at African higher education institutions, the OER community, the global research and academic community policy makers, government officials, international development agencies and the donor community. |
| #10.3 | OER in and as MOOCs: An analysis of impact on educators’ practices in African-developed higher education courses  
*Project Lead: Laura Czerniewicz* | A mixed methods investigation of open course development practices. Interviews will be employed to establish the development of lecturers’ understandings and practices of use/reuse of OER before, during and after the MOOC development and implementation process. The outputs will be made available via workshops, blogs, a project website, the CILT Slideshare, Facebook and Twitter accounts and to share research outputs (reports, journal articles, conference presentations, infographics, digital stories) and data in the OpenUCT repository as well as to contribute to global OER maps.  
To inform administrators at higher education institutions, the MOOC community, the global research community, policy makers, government officials, international development agencies and MOOC platform providers. |
| --- | --- | --- |
| #10.4 | Darakht-e Danesh (“knowledge tree”) Library for Educators in Afghanistan  
*Project Lead: Dr Lauryn Oates* | This mixed methods study of the Darakht-e Danesh (“knowledge tree”) impact upon educators’ knowledge and pedagogic practice in Afghanistan will include outputs for raising awareness (DD Library website, social media, workshops, panels, workshops) and sharing project findings and (conferences, newsletters, fact sheets, scholarly papers and website – http://www.cw4wafghan.ca)  
Influence the broader development community working in Asia, and specifically Afghanistan as well as among Canadian stakeholder groups including other development organizations active in Asia, donors, and research organizations |
| #10.5 | Investigating the Impact of OER on Secondary and Tertiary Education in Pakistan  
*Project Lead: Dr Yasira Waqar* | This mixed methods study which sets out to evaluate the impact of OER on students and teachers at secondary and tertiary levels in Pakistan will produce a final research report for the funding agency as well as all the participating institutions. Project findings will also be disseminated through a separate project page of the ROER4D website. Project flyers will be used to disseminate the results of the study.  
Influence secondary and tertiary governmental and institutional policy makers in Pakistan |
| #10.6 | Impact of integrating OER in teacher education at the Open University of Sri Lanka  
*Project Leads: Dr Shironica Karunanayaka and Dr Som Naidu* | Findings from this action research study will be disseminated through as conference papers, journal articles, and dissemination seminars as well as a monograph  
To inform decision-making of the institutions represented by the participants as well as grant recipient institution itself |
| #10.7 | Cost-Effectiveness Analysis of Open Educational Resources Based on Quality of Learning Materials and Teaching Competence in Postgraduate Distance Education Courses in the Philippines  
*Project Lead: Dr Sheila Bonito* | Results of the study will be disseminated in a Round Table Discussion in the University where faculty members and students from all constituent units will be invited. Research proponents will also be encouraged to write several papers about the study to be submitted for oral presentation in international conferences and eventually for submission to reputable journals locally and internationally.  
Inform institutional policy makers |
| #11 | Mapping education expenditure – Africa  
*Project lead: Sarah Goodier,* | Country report Regional meeting General report  
Inform policy makers and funders about the funding flow from public sources into educational resource acquisition and development |
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<tr>
<th>Country report</th>
<th>Regional meeting</th>
<th>General report</th>
<th>Inform policy makers and funders about the funding flow from public sources into educational resource acquisition and development</th>
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<tr>
<td><strong>University of Cape Town, South Africa</strong>&lt;br&gt;Mentor: Cheryl Hodgkinson-Williams</td>
<td><strong>FUNDER: Open Society Foundation</strong>&lt;br&gt;Mapping education expenditure – Latin America&lt;br&gt;Research lead: Carolina Botero&lt;br&gt;Karisma Foundation&lt;br&gt;Mentor: Carolina Rossini</td>
<td>A cross-regional meta-analysis of the desktop analysis, surveys, case studies and action research studies, providing a theorised account of the current use and impact of OER for post-secondary education in the Global South explaining how and why the OER practices of students and lecturers are being inhibited or facilitated by various infrastructural, personal, technical, legal, pedagogical, socio-cultural and economic factors and what impact on policy and practice can be determined.</td>
<td>Contribute to the knowledge base by providing a theorised explanation of OER for development for secondary and post-secondary education in the Global South. Influencing policy by providing a consolidated set of policy recommendations for international agencies, philanthropic foundations, governments as well as secondary and post-secondary education institutions and model/s of useful practice of OER adoption and ways to establish impact.</td>
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