RESEARCHING OPEN EDUCATIONAL RESOURCES AND OPEN PEDAGOGICAL PRACTICES: THE ROER4D PROJECT

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Researching Open Educational Resources and Open Pedagogical Practices: The ROER4D Project

Cheryl Hodgkinson-Williams
University of Cape Town
MEd EdTech Seminar
26 Feb 2016
The cost of college textbooks has skyrocketed in recent years. To students and families already struggling to afford high tuition and fees, an additional $1,200 per year on books and supplies can be the breaking point.

As publishers keep costs high by pumping out new editions and selling books bundled with software, students are forced to forgo book purchases or otherwise undermine their academic progress.
Key challenges facing education in South Africa

#Feesmustfall protests in Nov 2015 & Feb 2016 in South Africa

- Cost
- Relevance
Key challenges facing education in Africa

Unemployed youth in Nigeria

Key challenges facing education in developing countries

Education institutions under political & financial pressure

Rising numbers of students in the education sector and limited places in HE

Expensive, limited in number, often outdated textbooks are not entirely relevant to the context

Reduction of educational funding by governments

Employability of graduates

OER as a response to some educational challenges facing education in developing countries

Finding the sweet spot: open educational resources in the developing world

on December 17, 2012

With debate about the benefits and future of the MOOC dominating the educational blogosphere in the last year, discussions about the open sharing of educational resources are becoming more prevalent. Open Educational Resources, or OERs, offer a potential tool for impacting education in developing countries and fast growing economies, particularly in the emerging technology hubs of Africa. These open, freely available educational resources can provide top education for people who don’t have access to universities or education in developing countries, but there is fear that educational resources created in highly developed countries will be of little use to those in developing countries because of cultural and economic differences.

What are OER?

- Open educational resources (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 (e.g. Creative Commons) (adapted from Smith & Casserly 2006: 8).

Free videos

Any learner or teacher

Free lecture notes
Open textbooks as a type of OER

OER: Degrees of openness

Customise (e.g. translate, add local content)

Copy

Combine (e.g. select and mix content)

Contribute (e.g. share locally & with the world)

<table>
<thead>
<tr>
<th>Copyright</th>
<th>All rights reserved</th>
<th>Attribution Non-commercial</th>
<th>Attribution Non-commercial Share Alike</th>
<th>Attribution Non-commercial</th>
<th>Attribution No Derivatives</th>
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<tr>
<td>[cc BY NC ND]</td>
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<td>[cc BY]</td>
<td>[cc BY SA]</td>
<td>SA = Share Alike</td>
<td>No rights reserved</td>
</tr>
</tbody>
</table>

Most restrictive

BY = Attribution

NC = Non-commercial

ND = No derivatives

SA = Share Alike

Most accommodating

Hodgkinson-Williams & Gray (2009:110) & Hodgkinson-Williams (2014)
Examples of OER from Africa (1)

http://oer.avu.org/

http://open.uct.ac.za/

http://www.oerafrica.org/
Examples of OER from Africa (2)

http://www.afrivip.org/open-education-resources

http://www.tessafrica.net
OER policy in Africa

http://oermap.org/policy-map/
Slow uptake of OER in Africa

http://ocw.mit.edu/about/site-statistics/
Most OER research taking place in Global North

http://oermap.org/oer-evidence-map/
Most OER research taking place in Global North

- Located 276 articles about OER in the Global South so far in our ROER4D Bibliography
- Busy comparing this to OER Bibliography (978 entries) provided to us by John Hilton III

http://tinyurl.com/ROER4D-Bibliography
ROER4D Funding


Grant 1 - IDRC CAD 2 million & OSF
Grant 2 - DFID CAD 500,000

3 Regions
- South America
- Sub-Saharan Africa
- Central, South & South-East Asia

18 research projects in 7 clusters

86 researchers & associates

26 countries

16 time zones
In what ways, and under what circumstances, can the adoption of OER impact upon the increasing demand for accessible, relevant, high-quality, and affordable education in the Global South?
In what ways, and under what circumstances, can the adoption of OER impact upon the increasing demand for accessible, relevant, high-quality, and affordable education in the Global South?

ADOPTION STUDIES

1. In what ways, and under what circumstances are OER being adopted in the Global South?
In what ways, and under what circumstances, can the adoption of OER impact upon the increasing demand for accessible, relevant, high-quality, and affordable education in the Global South?

ADOPTION STUDIES
1. In what ways, and under what circumstances are OER being adopted in the Global South?

IMPACT STUDIES
2. In what ways, and under what circumstances can OER adoption impact upon the increasing demand for accessible, relevant, high-quality, and affordable education in the Global South?
Overview of ROER4D’s 7 Project Clusters

- Baseline educational expenditure (2)
- OER impact studies (7+1)
- OER adoption in one country (1)
- OER Desktop overview (1)
- Survey of OER adoption by academics & students (1)
- Academics’ adoption of OER (2)
- Teacher educators’ adoption of OER (3)
ROER4D’s Project Clusters & Coordination
ROER4D 7 projects, 14 countries in Africa

1. Ethiopia
2. Ghana
3. Kenya
4. Madagascar
5. Mauritius
6. Mozambique
7. Rwanda
8. Senegal
9. Somalia
10. South Africa
11. Tanzania
12. Uganda
13. Zambia
14. Zimbabwe
ROER4D Research sites and participants in Africa

- **SP1**
  - Desktop Review – Ghana, Kenya, South Africa

- **SP2**
  - Cross regional survey of **student and educator OER adoption** – 12 institutions HE in Ghana, Kenya, South Africa

- **SP4**
  - Case study or **academics’ adoption** of OER – South Africa

- **SP10.1**
  - Impact study of **educators’ practices** in TESSA project

- **SP10.3**
  - Impact study on MOOC development on academics’ **pedagogical practices** – South Africa

- **SP11**
  - Baseline study of **government spending on educational resources** – South Africa, Kenya
ROER4D Specific Objectives

Original specific objectives:
- Build an empirical knowledge base on the use and impact of OER focusing on post-secondary education
- Develop the capacity of OER researchers
- Build a network of OER scholars
- Communicate research to inform education policy and practice

Adapted specific objectives:
- Build an empirical knowledge base on the use and impact of OER in education
- Develop the research capacity of OER researchers
- Build a network of OER scholars
- Communicate research to inform education policy and practice
- Develop a strategic approach towards the curation and dissemination of research documents and data collected in the project

Implicit objective: Undertake research on OER as ‘openly’ as possible
Original main research question

In what ways, and under what circumstances can the adoption of OER address the increasing demand for accessible, relevant, high-quality and affordable post-secondary education in the Global South?

Adapted main research question

In what ways, and under what circumstances, can the adoption of OER impact upon the increasing demand for accessible, relevant, high-quality, and affordable education in the Global South?

INFLUENCING FACTORS: structural, cultural, agential

OER PRACTICES: OER awareness, access, creation, 5 Rs (reuse, revision, remixing, redistribution, retention), non-use

IMPACT INDICATORS: accessible materials, affordable & high-quality materials, learner performance, teacher practice
**INFLUENCING FACTORS**
(See Archer)

- **Structural:**
  - Infrastructure
  - Policy
  - Repositories
  - ...

- **Cultural**
  - Compliance culture
  - Management styles
  - ...

- **Agential**
  - Awareness
  - Will / volition
  - ...

**OER & OER PRACTICES**
(Innovation) (See Wiley, Beetham, Hodgkinson-Williams)

- OER as the object/product
  - Cost
- OER as a practice/process by EDUCATORS & STUDENTS
  - Location
  - Creation
  - Reuse (as is)
  - Revision
  - Remixing
  - Retaining
  - Redistribution

**IMPACT INDICATORS**
(of aspect of educational problems/ development imperatives) (See Mulder)

- Learner
  - Performance
  - Satisfaction
  - ...
- Teacher
- Learning materials
  - Cost
- Learning processes
- Educational system
- Societal context

**CHALLENGES** – Access to HE, Cost of materials & Quality of materials and teaching
Teasing out relationships between ...

<table>
<thead>
<tr>
<th>What challenges are prompting …</th>
<th>Whom … to adopt OER (or not)</th>
<th>In what ways …</th>
<th>Under what circumstances …</th>
<th>Is this having an impact upon …</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inequality of access</td>
<td>Teachers/educators/tutors/lecturers/academics with varying:</td>
<td>Adopting OER by:</td>
<td>• Relevance of content</td>
<td>• Learning materials themselves</td>
</tr>
<tr>
<td>• Cost of materials</td>
<td>• Age</td>
<td>• Locating</td>
<td>• Policy influence</td>
<td>• Affordability</td>
</tr>
<tr>
<td>• Contextual relevance of teaching and learning materials</td>
<td>• Gender</td>
<td>• Creating</td>
<td>• Infrastructural issues</td>
<td>• Quality of content - Localised</td>
</tr>
<tr>
<td>• Variable quality of teaching</td>
<td>• Qualifications</td>
<td>• Reusing</td>
<td>• Institutional support</td>
<td>• Learner performance</td>
</tr>
<tr>
<td></td>
<td>• Experience</td>
<td>• Revising</td>
<td>• Facility provisioning</td>
<td>• Engagement</td>
</tr>
<tr>
<td></td>
<td>• Type of education</td>
<td>• Remixing</td>
<td>• Legal issues</td>
<td>• Marks</td>
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<tr>
<td></td>
<td>• Personal knowledge &amp; skills</td>
<td>• Retaining</td>
<td>• Quality assurance issues</td>
<td>• Satisfaction</td>
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<tr>
<td></td>
<td>• Personal motivation</td>
<td>• Redistributing</td>
<td>• Socio-cultural norms</td>
<td>• Teacher practice</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Flexibility</td>
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</tbody>
</table>


Understanding OER terms

Open Educational Resources

- Open Content
- Learning Objects
- Open Courseware
- Open source content
- Etc.

Ressources éducatives libres

Recursos Educacionais Abertos
Conceptual clarification strategies: Open Google Doc

ROER4D Research Concepts - DRAFT under construction

Created in March 2014 by Cheryl Hodgkinson-Williams
Updated by Cheryl Hodgkinson-Williams and/or Henry Trotter on 29 March 2015

To make sure we all have a shared understanding of the concepts that we use in the ROER4D study, hereewith are the initial descriptions that have been compiled. Please feel free to comment and Henry and I will synthesize the comments!

Table of Contents

Open Educational Resources
Educational materials
Adoption
Access
Create/Creation
Awareness
Share/Sharing
Re-distribution
Identifying pedagogical practices in OER adoption

- Awareness of OER as a concept as well as finding OER
- Deliberately creating OER to share with others
- Merely reusing OER as is (i.e. copying)
- Revising OER (e.g. customising by translating, adding examples, resequencing materials)
- Remixing OER (i.e. combining materials from more than one source)
- Retaining OER (i.e. keeping legal copies of materials)
- Redistributing OER (i.e. sharing with others openly)
Uncovering slower OER adoption than expected

- **Relevance** of OER for various contexts

- **Policy influence** - national, institutional and departmental

- **Infrastructural issues** - hardware, software, connectivity  **Institutional support** - incentives, recognition, rewards, technical support

- **Facility provisioning** - uninterrupted power supply

- Familiarity with **intellectual property mechanisms** including Creative Commons

- **Quality assurance** issues – accuracy, currency

- **Socio-cultural norms** - creation of own materials, unwillingness to use others’ materials
Establishing who is adopting OER or not

- Age
- Gender
- Qualifications
- Experience
- Type of educational environment - campus-based university, distance university
- Personal knowledge and skills
- Personal motivation - time, priorities
- Etc.
Open Research – ROER4D intentions to share

- Conceptual Framework/s
- Methods
- Instrument questions
- Data
- Analysis tools
- Findings
- Proposal
- Literature Review

NEW Open project

OER Asia
Make open …
… if it adds value
… if it is ethical
… if it is legal
… by default

On public display in the West Rotunda Gallery of the National Archives Building in Washington, D.C.

Thank you!

Questions?
Comments?


Website: [www.roer4d.org](http://www.roer4d.org)

Contact Principal Investigator: [cheryl.hodgkinson-williams@uct.ac.za](mailto:cheryl.hodgkinson-williams@uct.ac.za)

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