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

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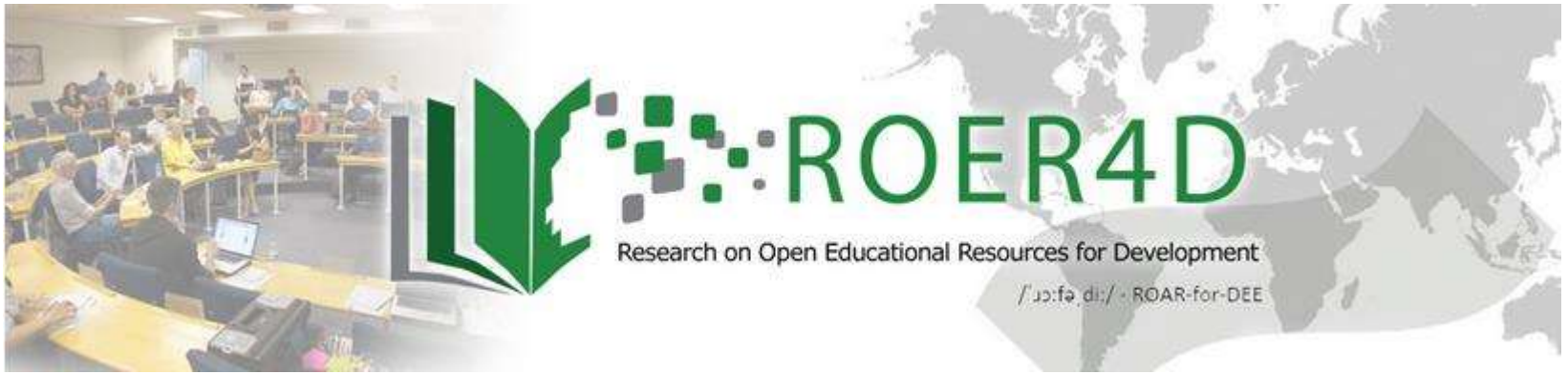
IDRC Grant/ Subvention du CRDI: 107311-001-Research into Open Educational Resources for Development



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

Cheryl Hodgkinson-Williams
University of Cape Town
MEd EdTech Seminar
26 Feb 2016

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Key challenges facing education in world-wide

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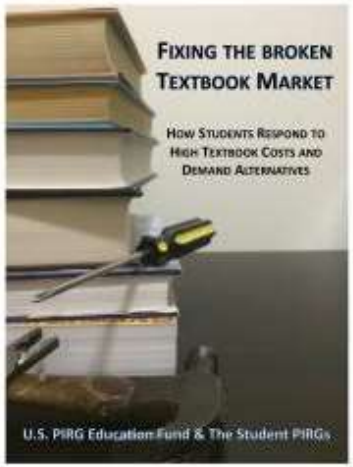
REPORT: AFFORDABLE HIGHER EDUCATION



FIXING THE BROKEN TEXTBOOK MARKET

RELEASED BY: U.S. PIRG EDUCATION FUND AND THE STUDENT PIRGS
RELEASE DATE: MONDAY, JANUARY 27, 2014

> DOWNLOAD REPORT (PDF)

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

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Key challenges facing education in Africa

http://africajournalismtheworld.com/2014/06/19/nigeria-unemployed-youths-feel-government-programmes-favour-those-with-political-links/

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Expensive, **limited** in number, often **outdated** textbooks are **not entirely relevant** to the context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

http://www.unesco.org/iiep/virtualuniversity/forumsfiche.php?queryforumspages_id=23 x

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

HOME FIELD STORIES OPINIONS TRENDS JOBS » ADVERTISE WITH US

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TRENDS

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.

Subscribe to the newsletter

http://www.elearning-africa.com/eLA_Newsportal/finding-the-sweet-spot-open-educational-resources-in-the-developing-world/

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).

Open textbooks as a type of OER

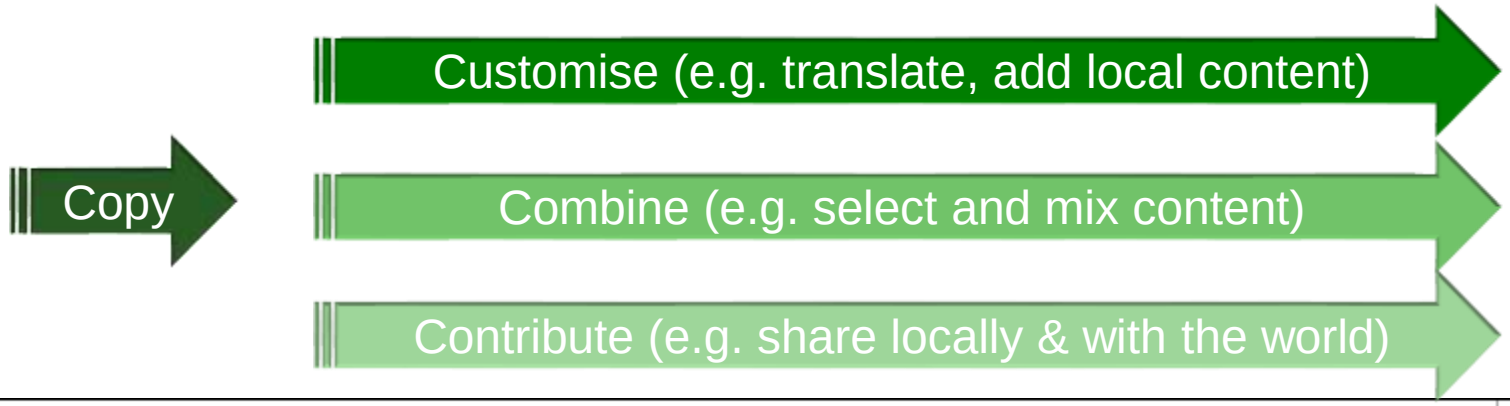
Open textbooks become popular source of affordable content

By Tara García Mathewson | February 22, 2016 print

share tweet post email

http://www.educationdive.com/news/open-textbooks-become-popular-source-of-affordable-content/414274/

OER: Degrees of openness



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	BY NC ND	BY NC SA	BY NC	BY ND	BY SA	BY	
Suitable file formats	PDF, password protected document file					Wiki, xml, ODF, html	
Most restrictive						Most accommodating	

BY = *Attribution* | ***NC*** = *Non-commercial* | ***ND*** = *No derivatives* | ***SA*** = *Share Alike*

Hodgkinson-Williams & Gray (2009:110) & Hodgkinson-Williams (2014)

Examples of OER from Africa (1)

http://oer.avu.org/

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

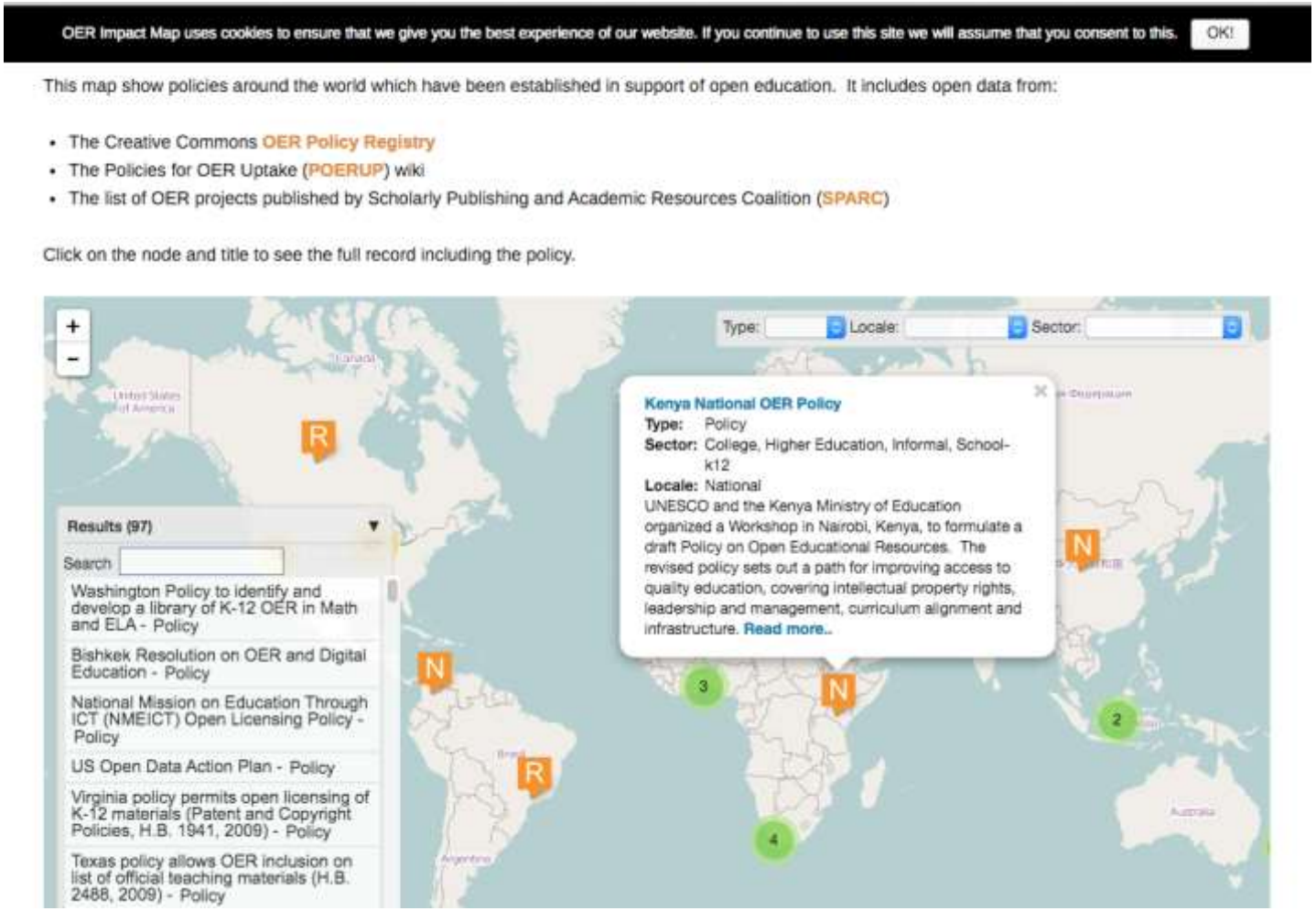
http://www.oerafrica.org/

Examples of OER from Africa (2)

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

http://www.tessafrica.net

OER policy in Africa

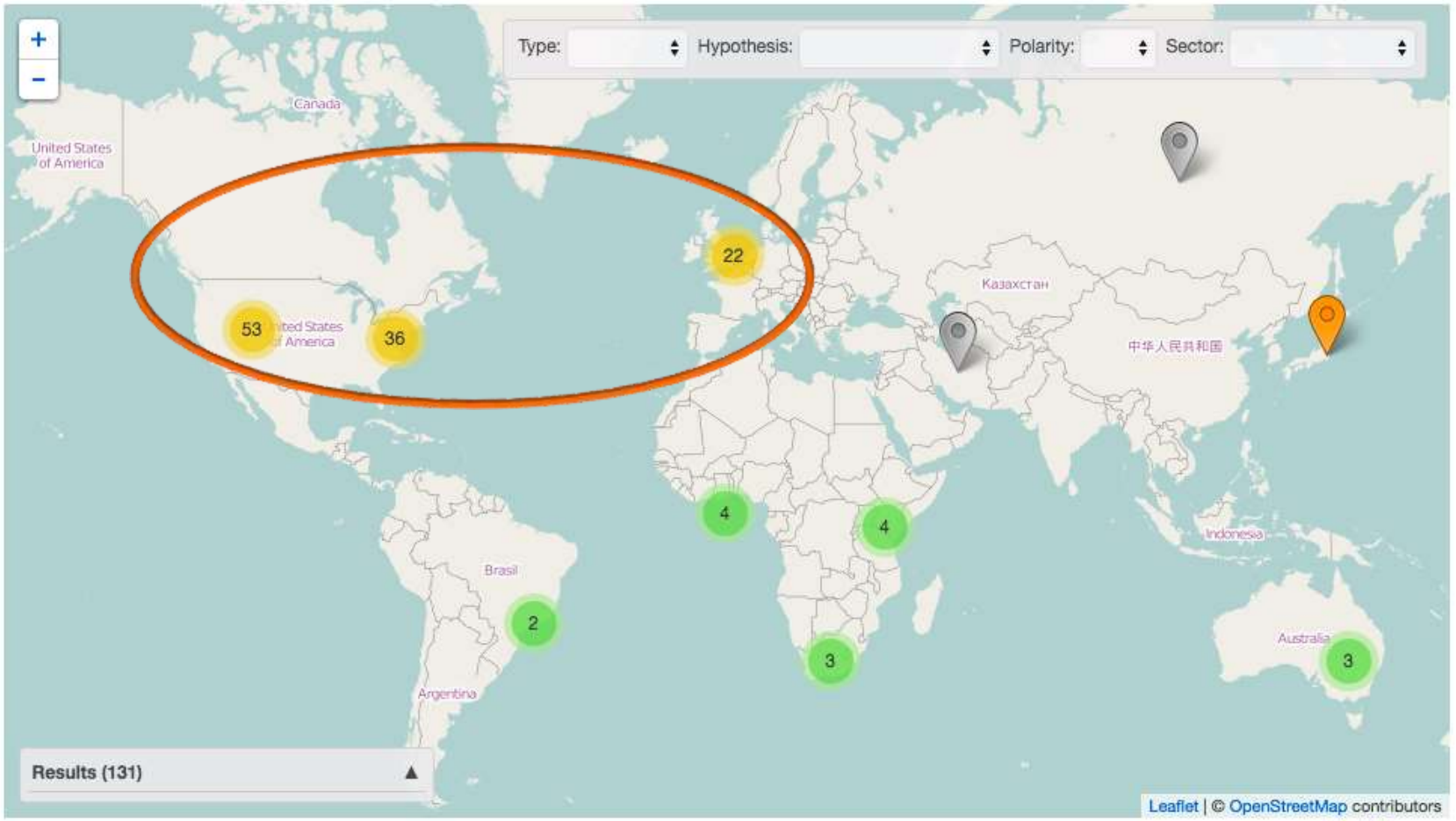


http://oermap.org/policy-map/

Slow uptake of OER in Africa

http://ocw.mit.edu/about/site-statistics/

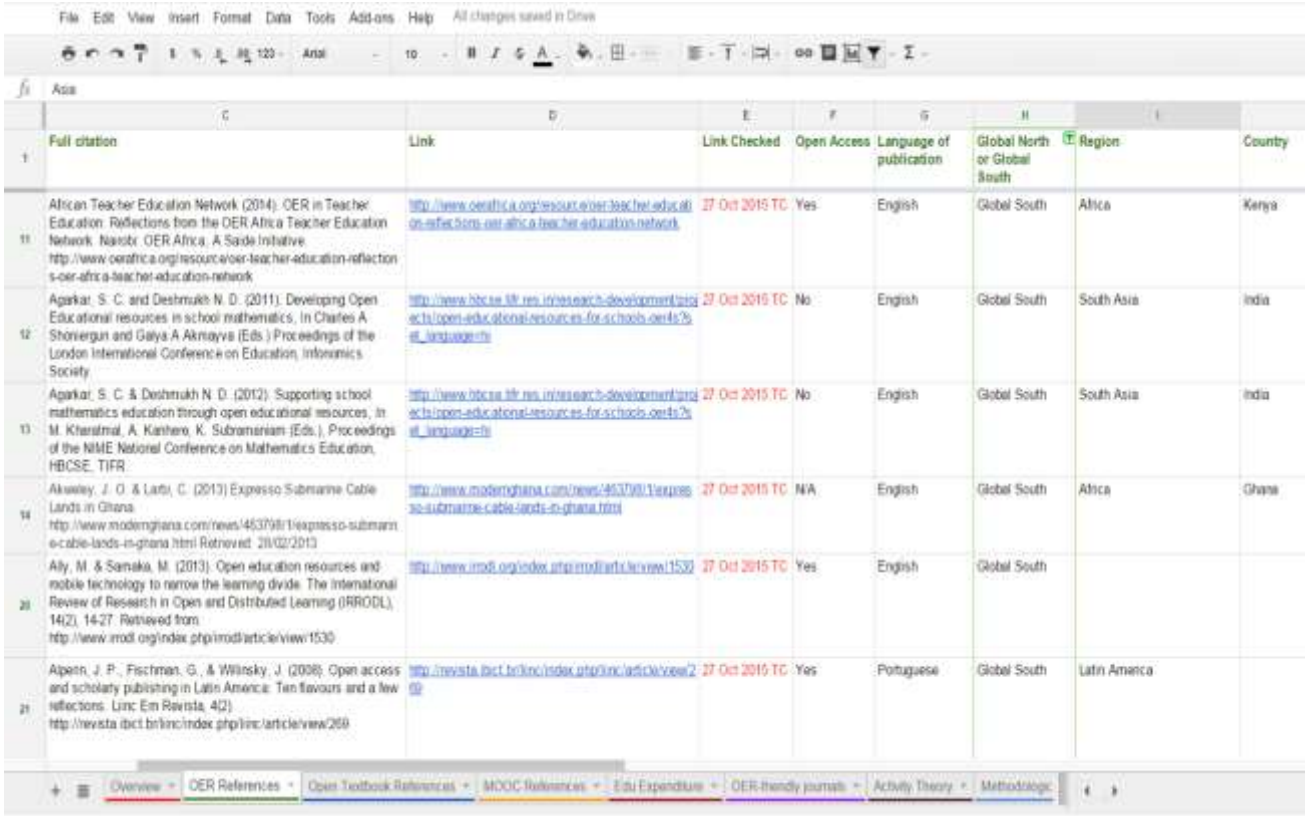
Most OER research taking place in Global North



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

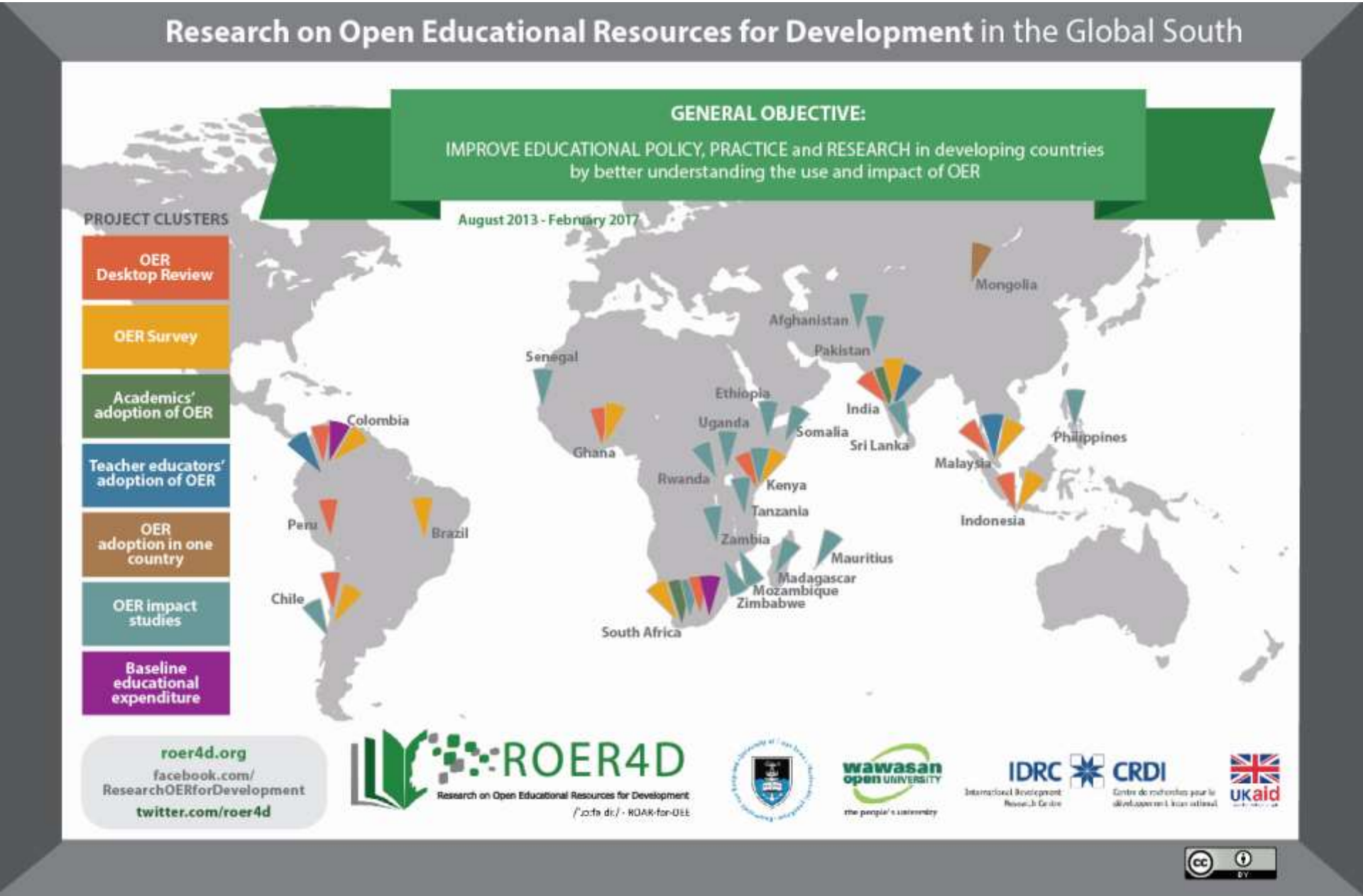


	C	D	E	F	G	H	I	J
1	Full citation	Link	Link Checked	Open Access	Language of publication	Global North or Global South	Region	Country
11	African Teacher Education Network (2014). OER in Teacher Education: Reflections from the OER Africa Teacher Education Network. Nairobi: OER Africa. A Saide Initiative. http://www.oerafrica.org/resource/oer-teacher-education-reflections-oer-africa-teacher-education-network	http://www.oerafrica.org/resource/oer-teacher-education-reflections-oer-africa-teacher-education-network	27 Oct 2015 TC	Yes	English	Global South	Africa	Kenya
12	Agarkar, S. C. and Deshmukh N. D. (2011). Developing Open Educational resources in school mathematics, In Charles A Shoniregun and Galya A Akmayva (Eds.) Proceedings of the London International Conference on Education, Infonomics Society	http://www.hbcse.tifr.res.in/research-development/projects/open-educational-resources-for-schools-oers?s#_language=hi	27 Oct 2015 TC	No	English	Global South	South Asia	India
13	Agarkar, S. C. & Deshmukh N. D. (2012). Supporting school mathematics education through open educational resources, In M. Kharatmal, A. Kanhere, K. Subramaniam (Eds.), Proceedings of the NIME National Conference on Mathematics Education, HBCSE, TIFR	http://www.hbcse.tifr.res.in/research-development/projects/open-educational-resources-for-schools-oers?s#_language=hi	27 Oct 2015 TC	No	English	Global South	South Asia	India
14	Akweley, J. O. & Larbi, C. (2013) Expresso Submarine Cable Lands in Ghana http://www.modernghana.com/news/463798/1/expresso-submarine-cable-lands-in-ghana.html Retrieved: 28/02/2013	http://www.modernghana.com/news/463798/1/expresso-submarine-cable-lands-in-ghana.html	27 Oct 2015 TC	N/A	English	Global South	Africa	Ghana
20	Ally, M. & Samaka, M. (2013). Open education resources and mobile technology to narrow the learning divide. The International Review of Research in Open and Distributed Learning (IRRODL), 14(2), 14-27. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1530	http://www.irrodl.org/index.php/irrodl/article/view/1530	27 Oct 2015 TC	Yes	English	Global South		
21	Alperin, J. P., Fischman, G., & Willinsky, J. (2008). Open access and scholarly publishing in Latin America: Ten flavours and a few reflections. Liinc Em Revista, 4(2). http://revista.ibict.br/liinc/index.php/liinc/article/view/269	http://revista.ibict.br/liinc/index.php/liinc/article/view/269	27 Oct 2015 TC	Yes	Portuguese	Global South	Latin America	

Overview | OER References | Open Textbook References | MOOC References | Edu Expenditure | OER-friendly journals | Activity Theory | Methodologic

http://tinyurl.com/ROER4D-Bibliography

ROER4D Research: OER Adoption & Impact



ROER4D Funding

International Development Research Centre (IDRC)
Open Society Foundations (OSF)
UK Department for International Development (DFID)

3 year project (27 Aug 2013 - 27 Aug 2016 with an extension to Feb 2017)

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

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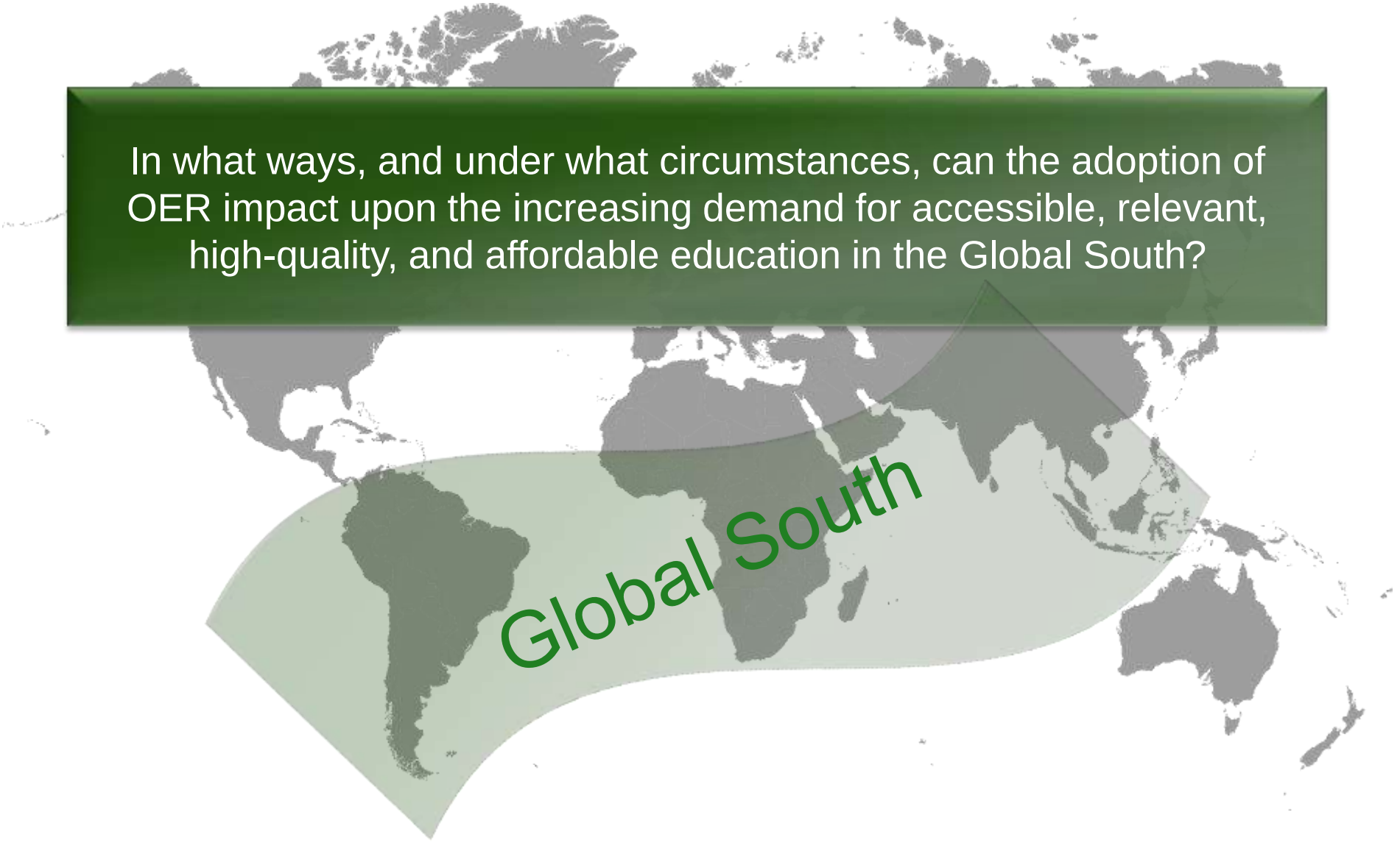
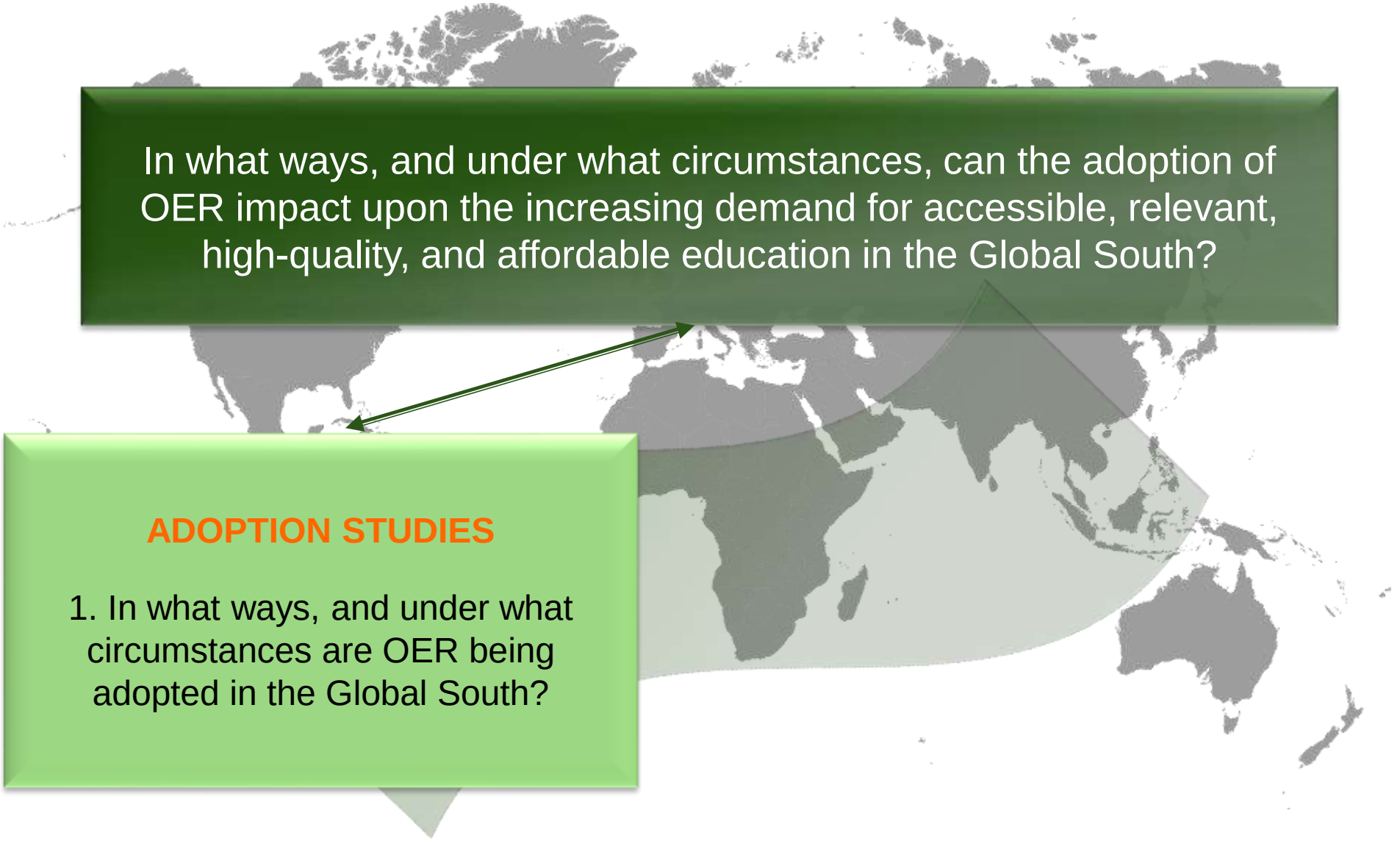
Research on Open Educational Resources for Development (ROER4D)

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?



Research on Open Educational Resources for Development (ROER4D)



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?

Research on Open Educational Resources for Development (ROER4D)

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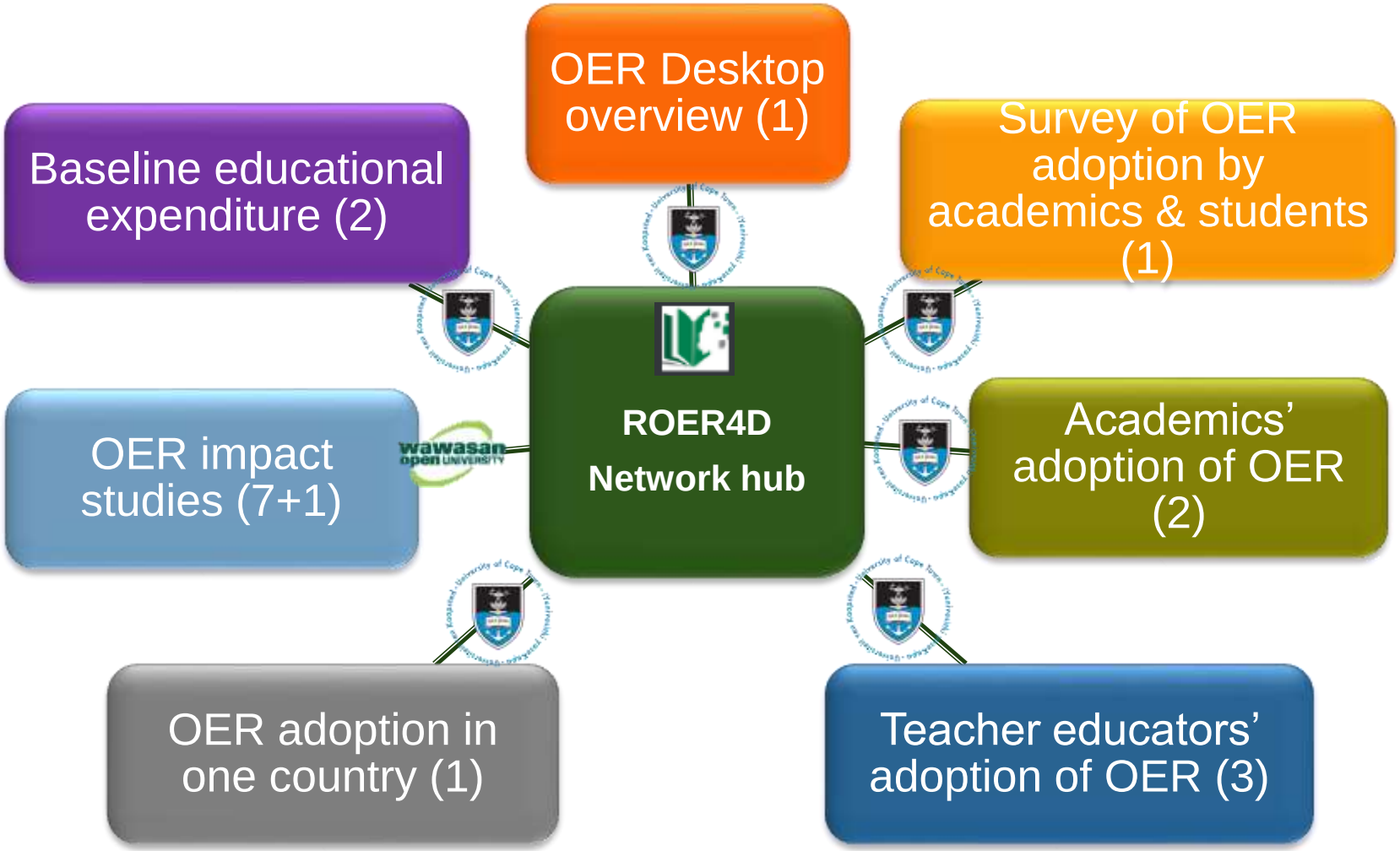
ADOPTION STUDIES

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

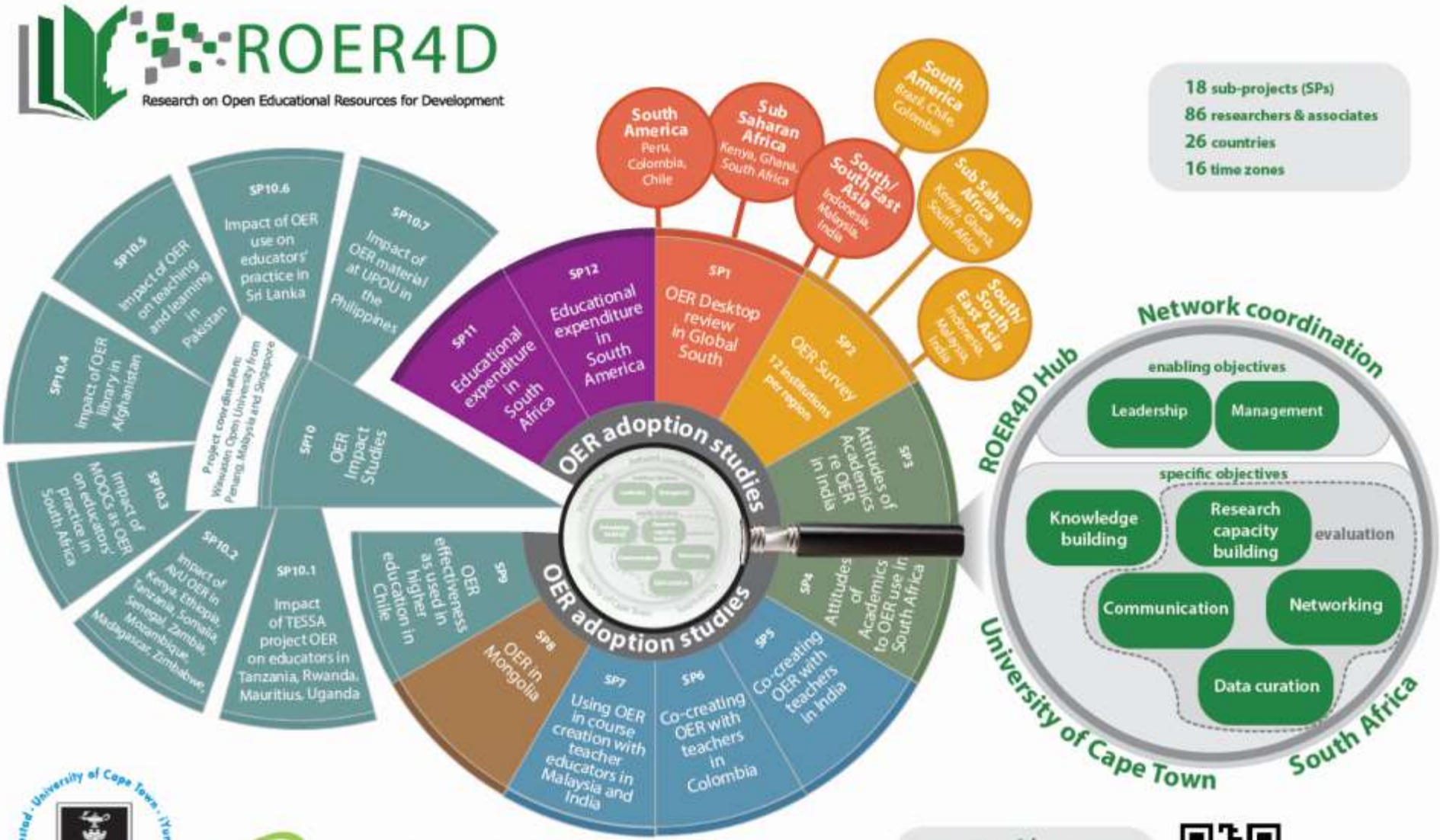
IMPACT STUDIES

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



ROER4D's Project Clusters & Coordination



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IDRC International Development Research Centre
CRDI Centre de recherches pour le développement international
UKaid

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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

ROER4D Main research question

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

ROER4D Relationships being investigated

CHALLENGES – Access to HE, Cost of materials & Quality of materials and teaching

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)

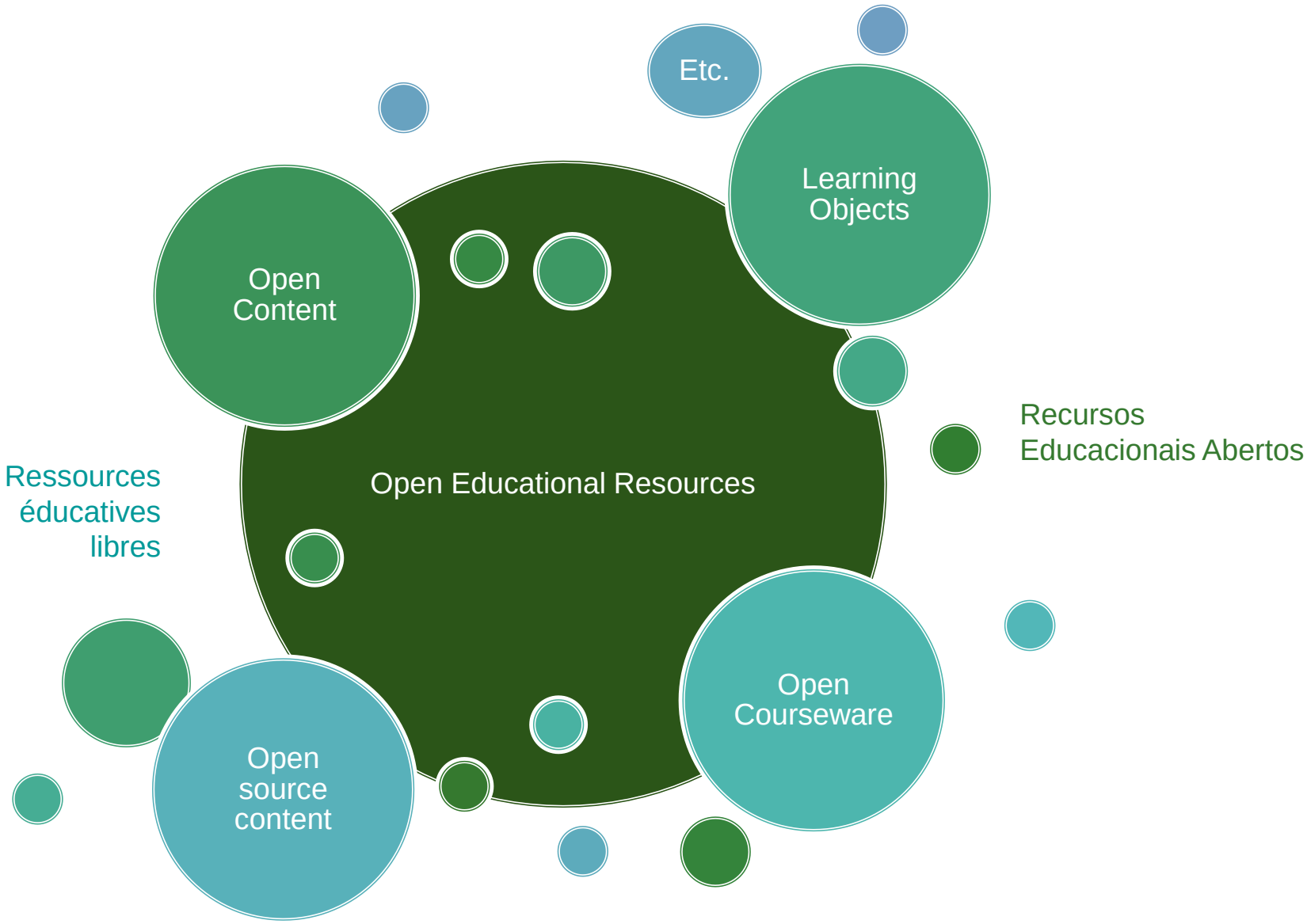
- **Learner**
  - Performance
  - Satisfaction
  - ...
- **Teacher**
- **Learning materials**
  - Cost
- **Learning processes**
- **Educational system**
- **Societal context**

Teasing out relationships between …

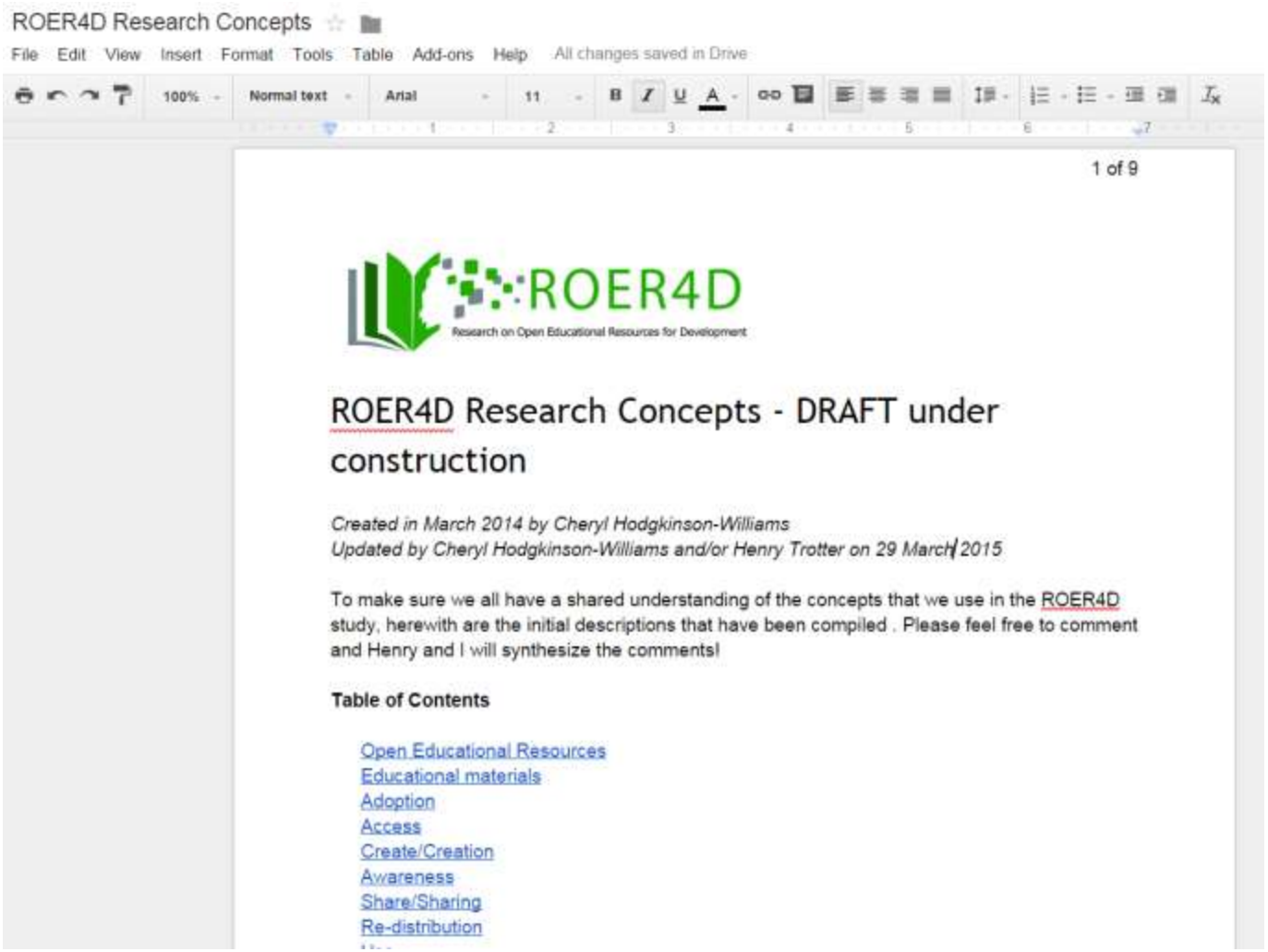
What challenges are prompting …	Whom … to adopt OER (or not)	In what ways …	Under what circumstances …	Is this having an impact upon …

• Inequality of access
• Cost of materials
• Contextual relevance of teaching and learning materials
• Variable quality of teaching
	Teachers/ educators/ tutors/ lecturers / academics with varying:
	• Age
	• Gender
	• Qualifications
	• Experience
	• Type of education
	• Personal knowledge & skills
	• Personal motivation
		Adopting OER by:
		• Locating
		• Creating
		• Reusing
		• Revising
		• Remixing
		• Retaining
		• Redistributing
			• Relevance of content
			• Policy influence
			• Infrastructural issues
			• Institutional support
			• Facility provisioning
			• Legal issues
			• Quality assurance issues
			• Socio-cultural norms
				• Learning materials themselves
				  • Affordability
				  • Quality of content - Localised
				• Learner performance
				  • Engagement
				  • Marks
				  • Satisfaction
				• Teacher practice
				  • Flexibility

Understanding OER terms



Conceptual clarification strategies: Open Google Doc



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

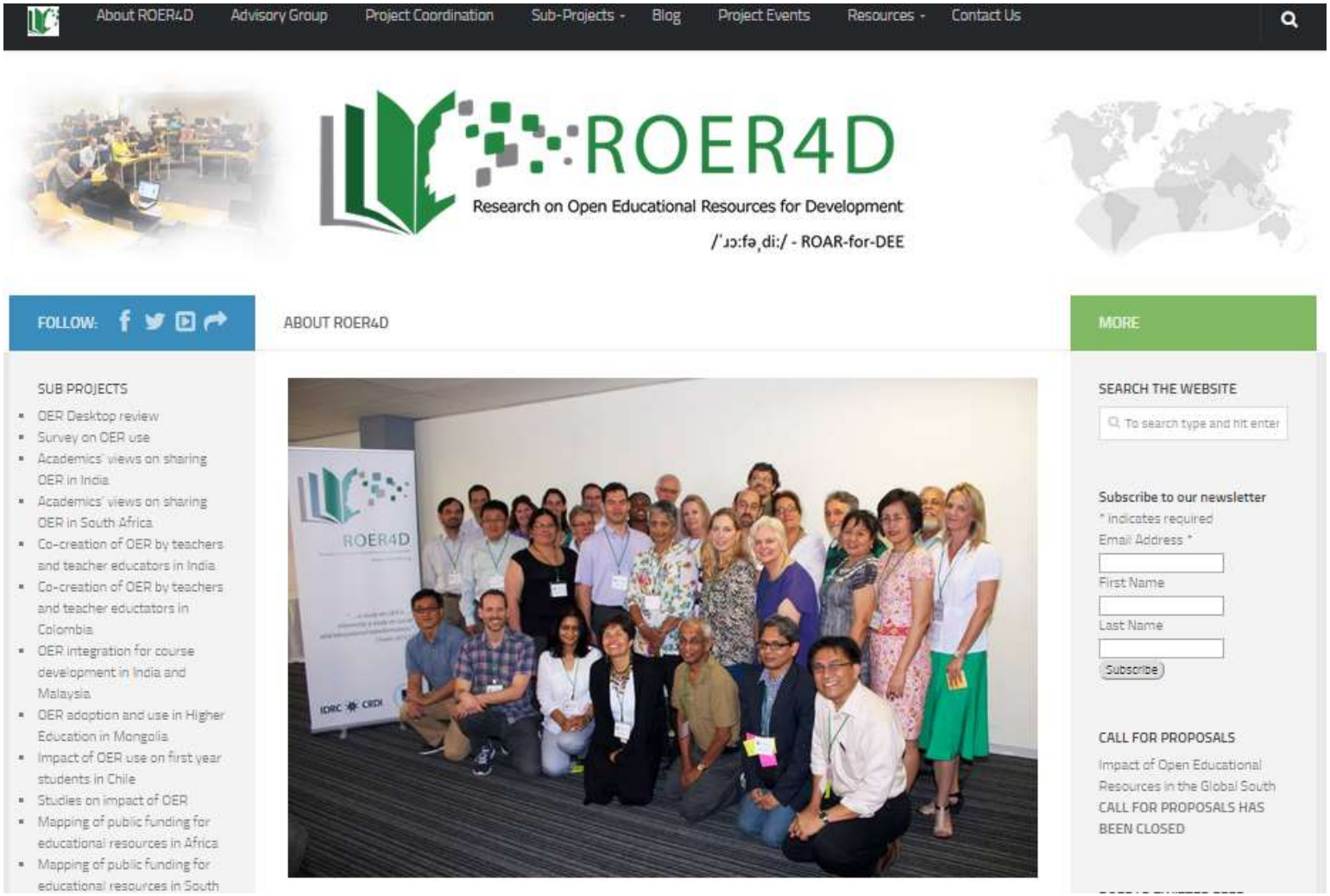
- **Relevance** of OER for various contexts
- **Policy influence** - national, institutional and departmental
- **Infrastructural issues** - hardware, software, connectivity **Institutional support** - incentives, recognition, rewards, technical support
- **Facility provisioning** - uninterrupted power 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.

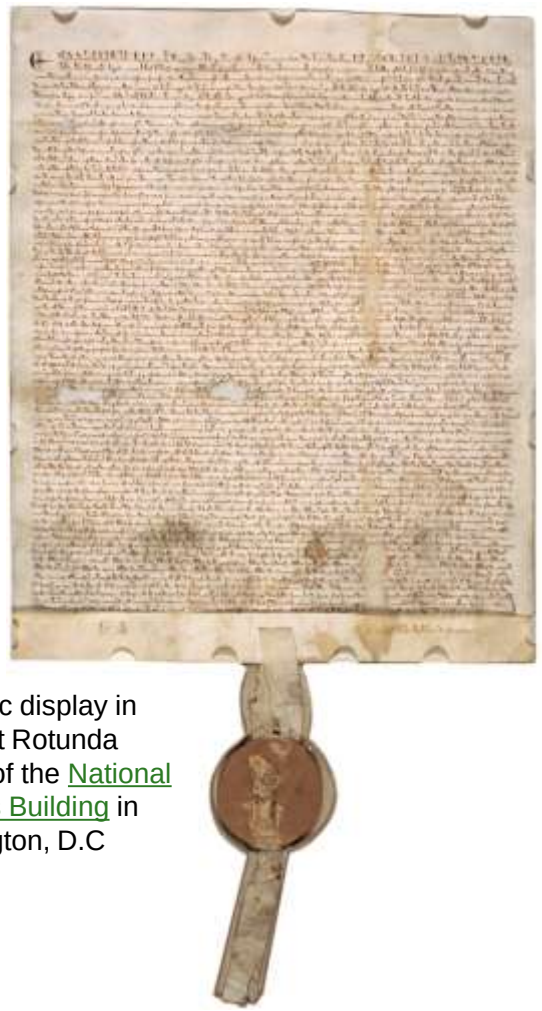
Open Research – ROER4D intentions to share

Keep track of our website



http://roer4d.org/

ROER4D Open Magna Carta



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

Make open …

… if it **adds value**

… if it is **ethical**

… if it is **legal**

… by **default**

http://en.wikipedia.org/wiki/Magna_Carta#mediaviewer/File:Magna_Carta_(1297_version_with_seal,_owned_by_David_M_Rubenstein).png

Thank you!

Questions?
Comments?

References

Hodgkinson-Williams, C. & Gray, E. (2009). Degrees of openness: The emergence of open educational resources at the University of Cape Town. International Journal of Education and Development using Information and Communication Technology, 5(5), 101-116. Available online: https://open.uct.ac.za/handle/11427/8860 [Last Accessed 23 January 2015].

Hodgkinson-Williams, C. A. (2014). Degrees of Ease: Adoption of OER, OpenTextbooks and MOOCs in the Global South. Keynote address at the OER Asia Symposium 2014. Available online: https://open.uct.ac.za/handle/11427/1188 [Last accessed 3 March 2015]

Smith M. & Casserly C. (2006) The Promise of Open Educational Resources. Available online: http://learn.creativecommons.org/wp-content/uploads/2008/03/changearticle.pdf [Last accessed 4 March 2014]

Links

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Follow us: http://twitter.com/roer4D

Presentations: www.slideshare.com/roer4D

Acknowledgments & Attribution

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