DIMENSIONS OF OPEN RESEARCH: CRITICAL REFLECTIONS ON OPENNESS IN THE ROER4D PROJECT

King, T.;Hodgkinson-Williams, C.;Willmers, M.;Walji, S.;
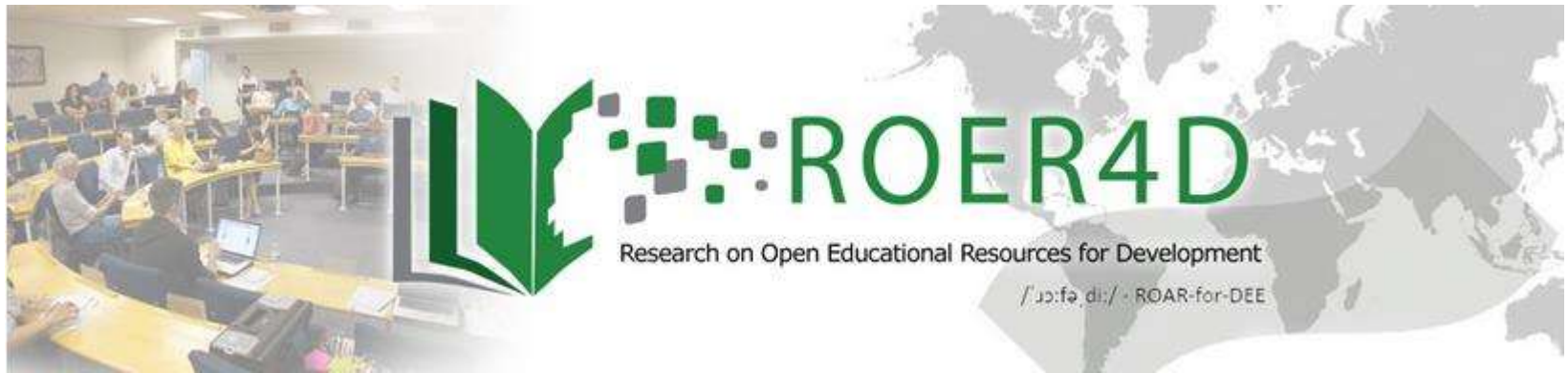
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Dimensions of open research: critical reflections on openness in the ROER4D project

Thomas King, Cheryl Hodgkinson-Williams, Michelle Willmers, Sukaina Walji
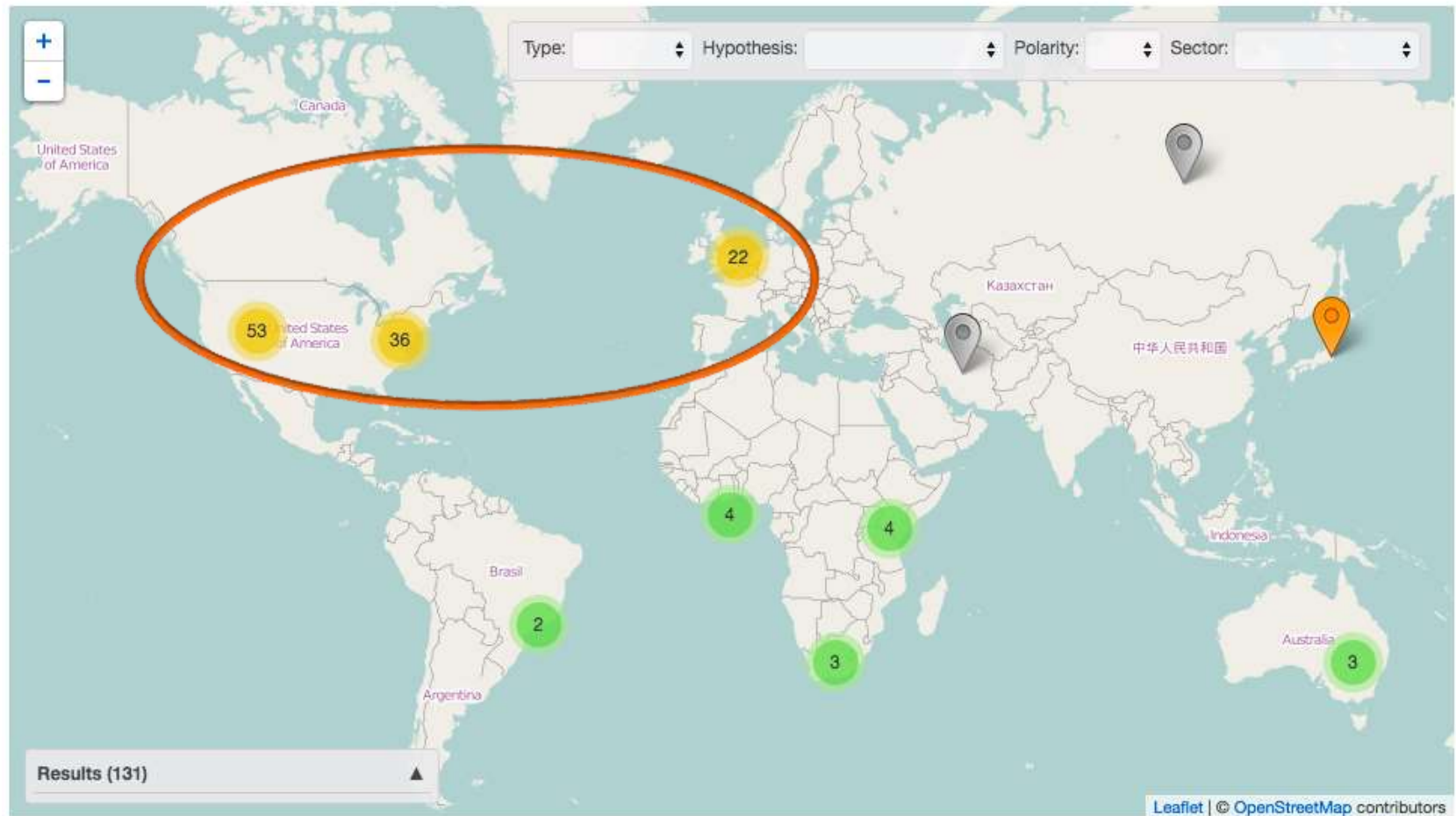University of Cape Town
OE Global Conference 2016, 14-16 April, Krakow, Poland

Contact presenter: Sukaina.Walji@uct.ac.za

www.slideshare.net/ROER4D

Most OER research taking place in Global North

http://oermap.org/oer-evidence-map/

ROER4D Research: OER Adoption & Impact

ROER4D Funding

IDRC

OSF

DFID

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

100+ researchers & associates

26 countries

16 time zones

ROER4D Hosting – Network Hub

Wawasan Open University
Penang, Malaysia

Centre for Innovation in Learning &
Teaching (CILT)
Centre for Higher Education
Development (CHED)
University of Cape Town
South Africa

Centre for
Innovation in
Learning and
Teaching
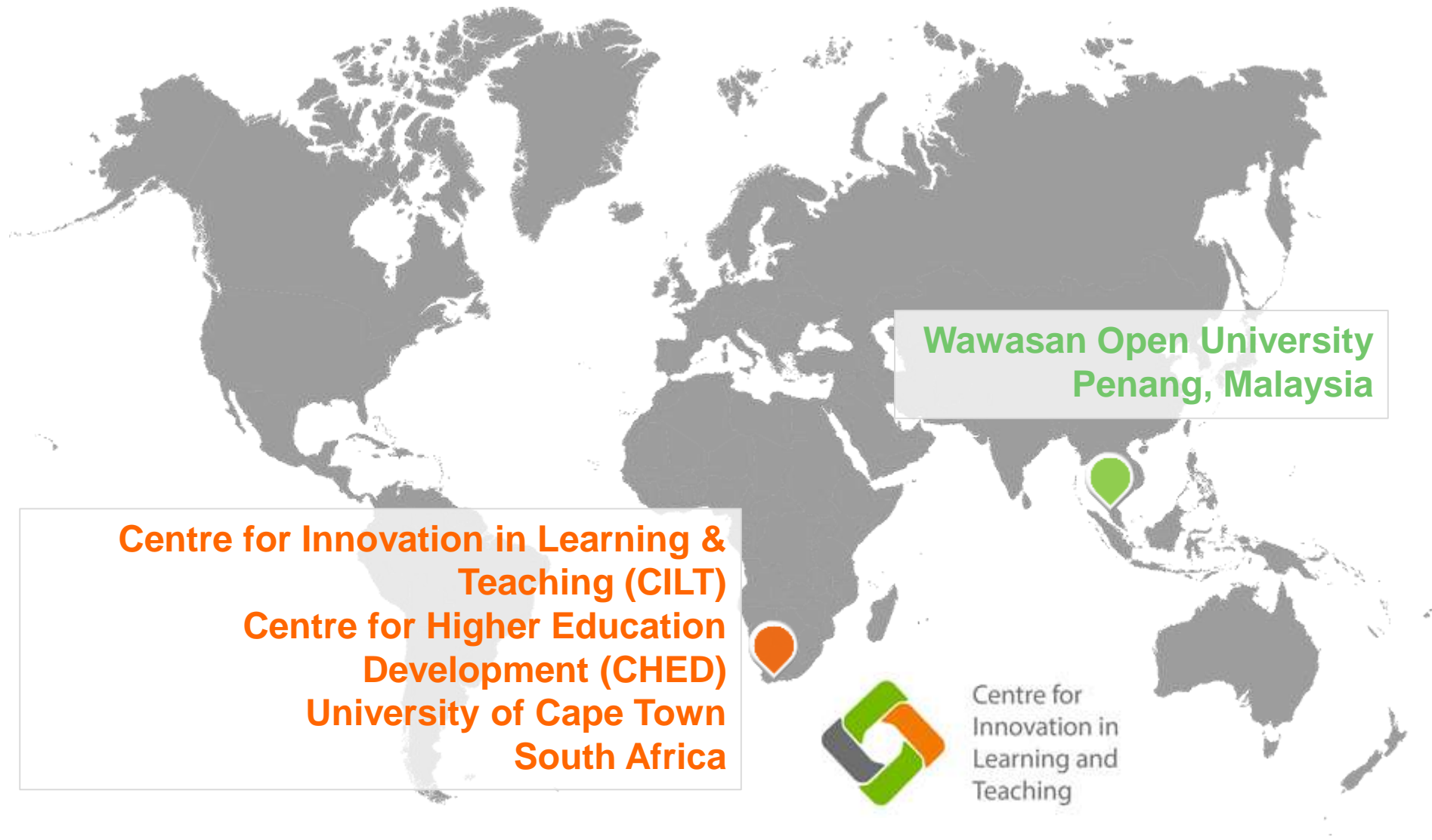
**Principal Investigator: A/Prof Cheryl Hodgkinson-Williams**

Research on Open Educational Resources for Development (ROER4D)

In what ways, for whom 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?

Global South

Overview of ROER4D's 7 Project Clusters
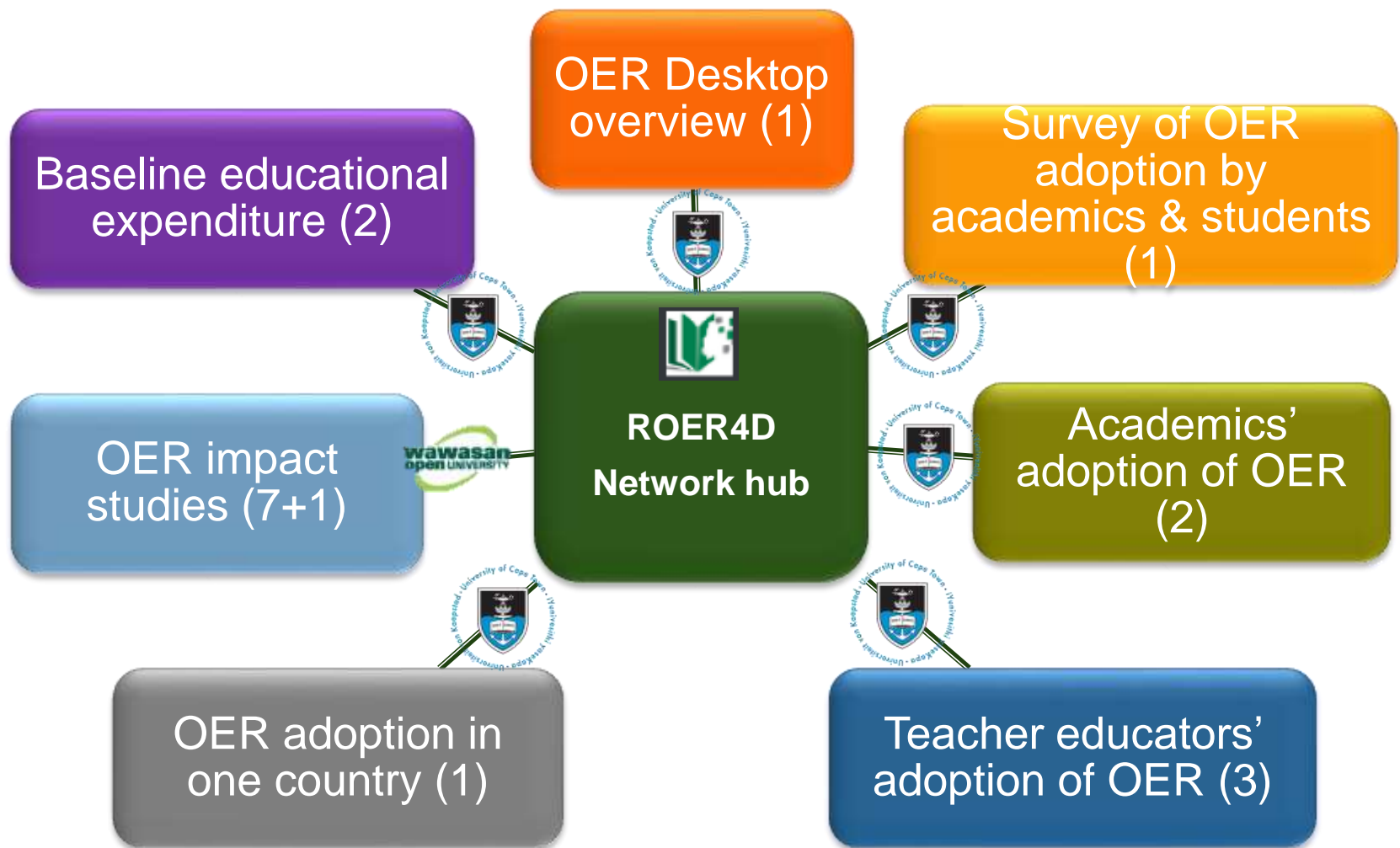
ROER4D Project Clusters & Coordination

ROER4D Project Objectives

1. Build an **empirical knowledge base** on the use and impact of OER in education

Knowledge building

Research capacity

2. Develop the research capacity of OER researchers

3. Build a network of OER scholars

Networking

Curation & dissemination
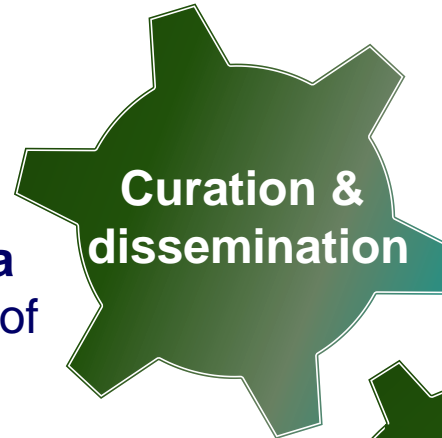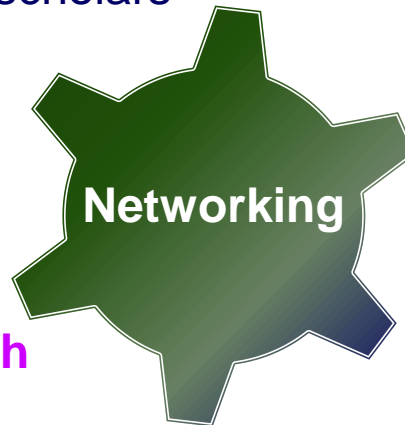
4. Curate & disseminate research openly

Communication

5. Communicate research to inform education policy and practice

ROER4D Implicit objective: Open research

To meet our explicit objectives we realised that we needed to undertake our research as "openly" as possible
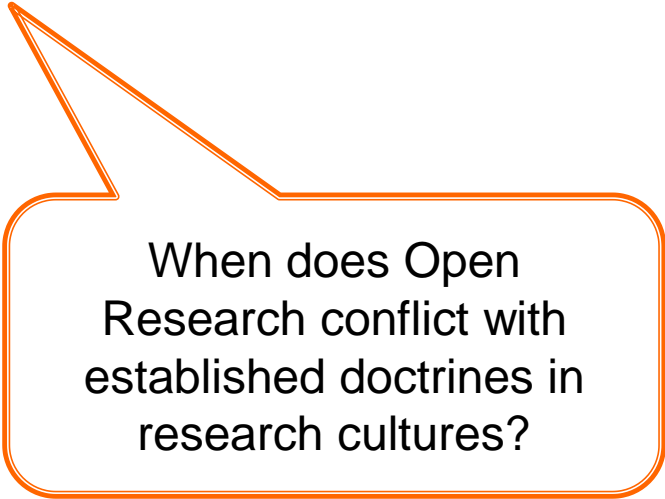
Defining Open Research

ROER4D definition:

Open research is the **process of conducting and sharing research** in which a selection of research proposals, work-process documents, literature reviews, methodologies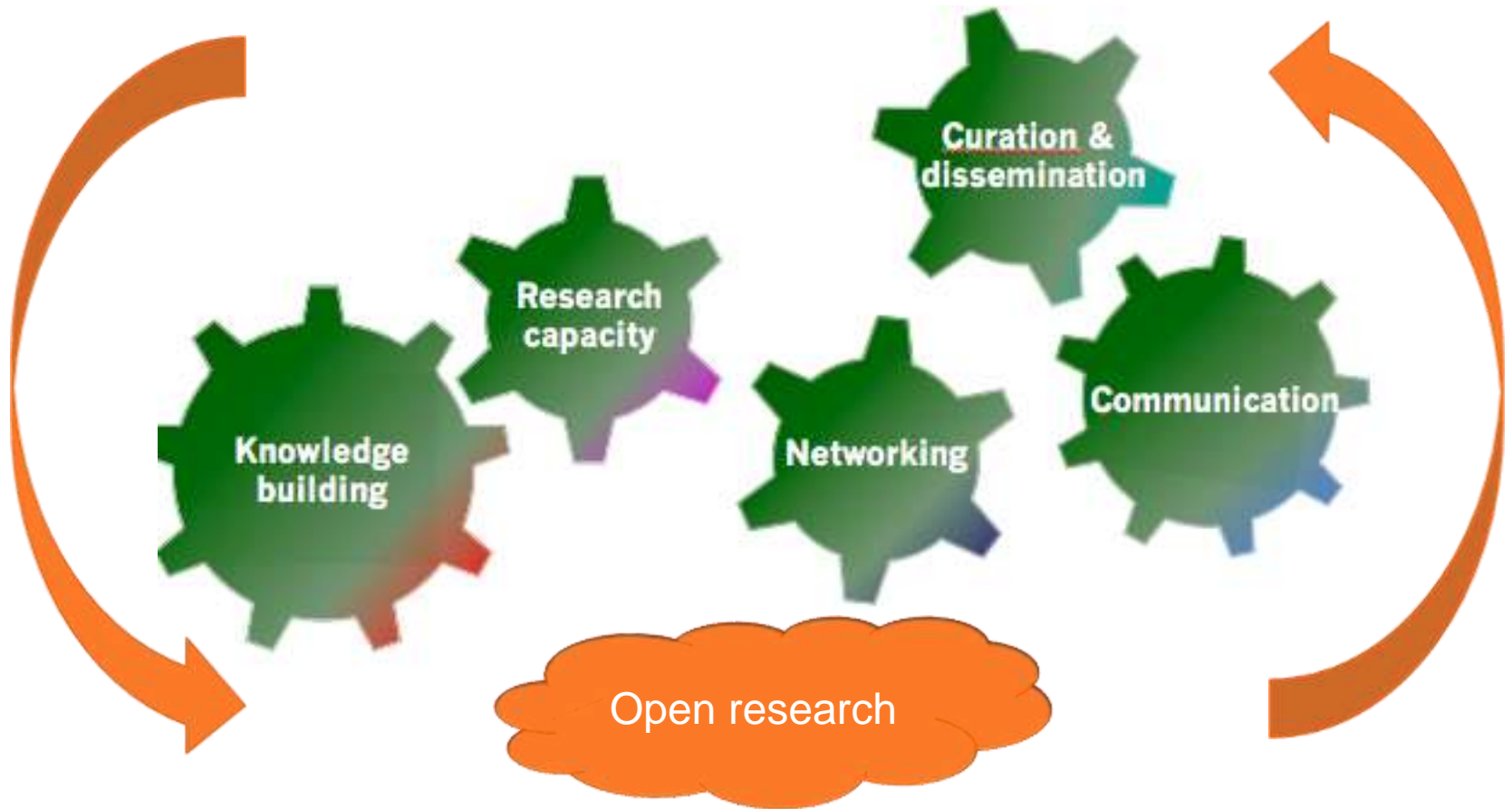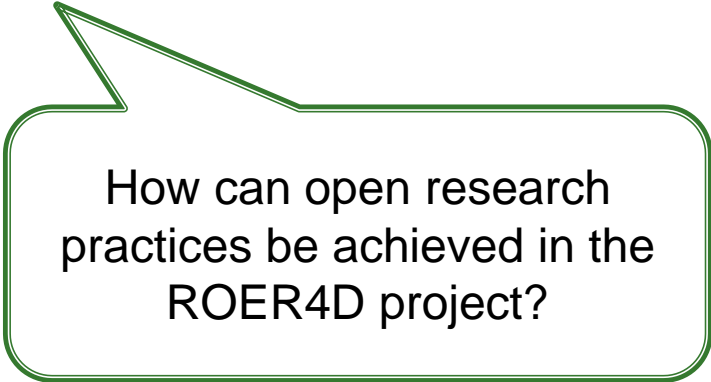, research instruments, analytical frameworks, findings and/or data **are intentionally shared on publicly accessible platforms** in order for others to freely access, use, modify, and share them subject to measures that preserve ethical practice and legal provenance.

How can open research practices be achieved in the ROER4D project?

When does Open Research conflict with established doctrines in research cultures?

Four dimensions of openness

- Process of engaging with open research has led to emergence of four dimensions of open research

Ideological openness

Legal openness

Technical openness

Operational openness

Grappling with their definitions and relationships is part of open research process

Defining ideological openness

- Foundation of beliefs about the purpose and value of openness in research

- While proponents of "radical openness" (Tapscott & Williams, 2013) promote a wholly open approach; others such as Resnick (2006) caution for the need for some secrecy and protection

- Belief that open research adds value to the research process through the transparency and accountability gained through barrier-free access to research outputs

Challenge: developing and explicating a coherent ideology of openness is an important foundational step towards open research practices

Towards ideological openness

- Developing a shared understanding and vocabulary of what openness was in the context of our project.

- Developed a nuanced ideological openness where research would be **open by default if it adds value, is ethical and legal**

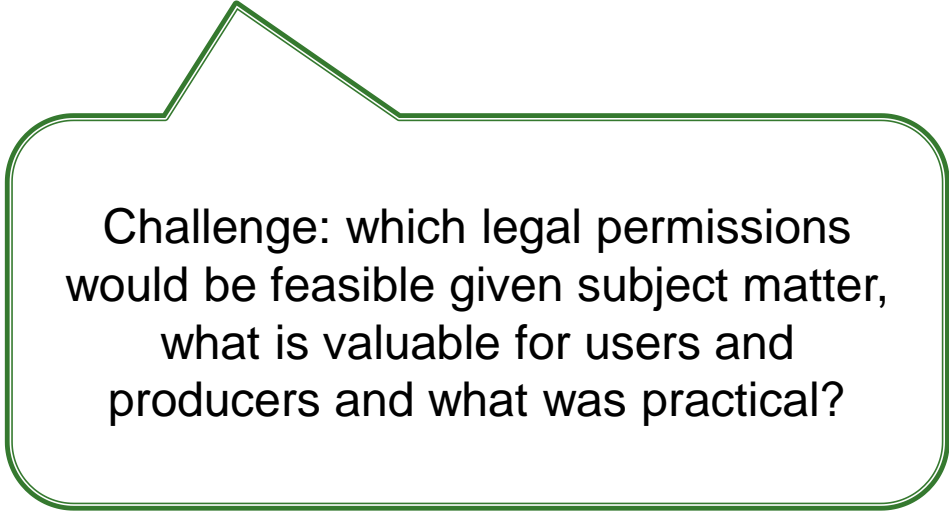- Getting to ideological openness is a **negotiated process where misalignments become apparent**.
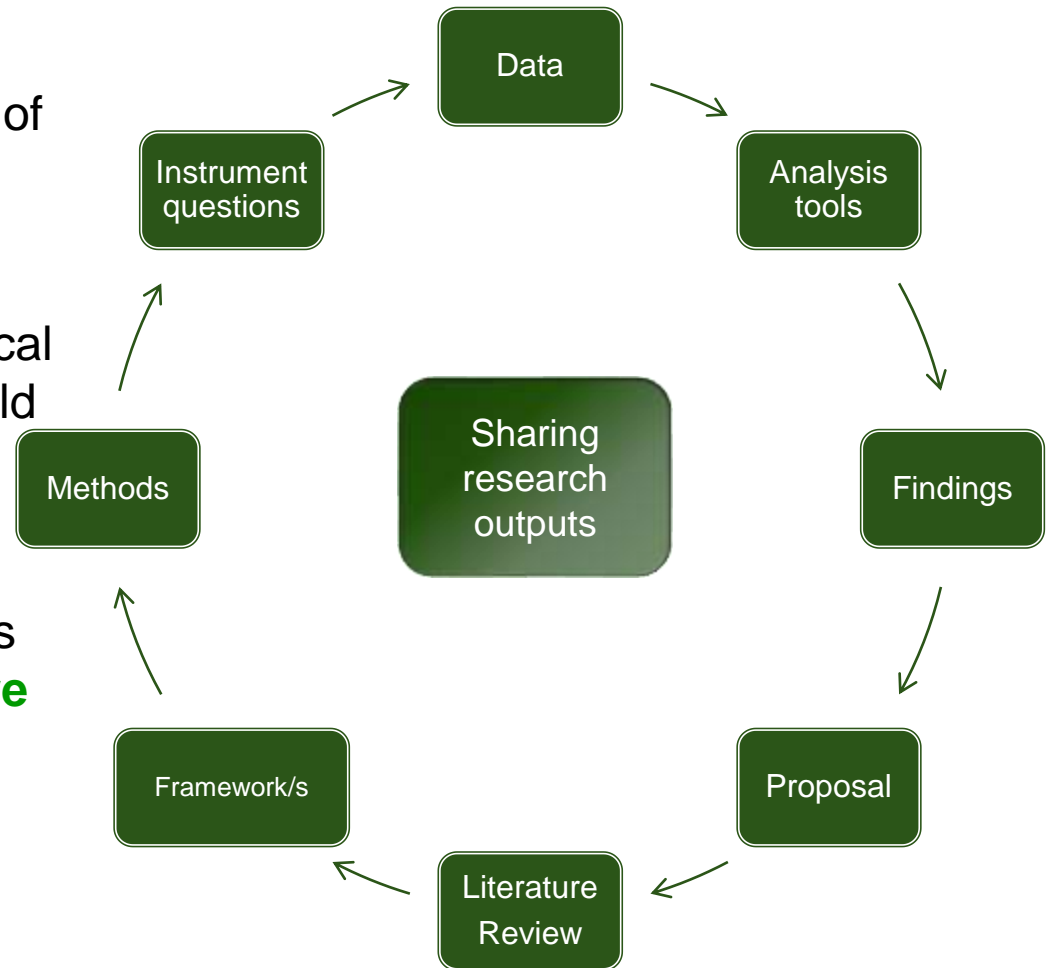
Early intention to share outputs

Defining legal openness

Legal openness refers to the use of **appropriate alternative licensing mechanisms** such as Creative Commons, as well as **the knowledge and resources required** to apply and/or negotiate open licensing, copyright clearance, and the related intellectual property considerations that accompany the decision to make outputs and data legally open and reusable.

Challenge: which legal permissions would be feasible given subject matter, what is valuable for users and producers and what was practical?

Towards legal openness

- Sub-grant agreements stipulated that (where possible) all outputs and findings would be made available under a Creative Commons licence

- Challenge in publishing research data necessitated a complex data publication strategy (need to abide by ethical principles and protection of research participants)

- Open licensing of internal reporting documents necessitated a more restrictive licence – CC-BY-ND.

ROER4D Data Publication Guidelines

Prepared by Michelle Willmers (updated 13 November 2015)

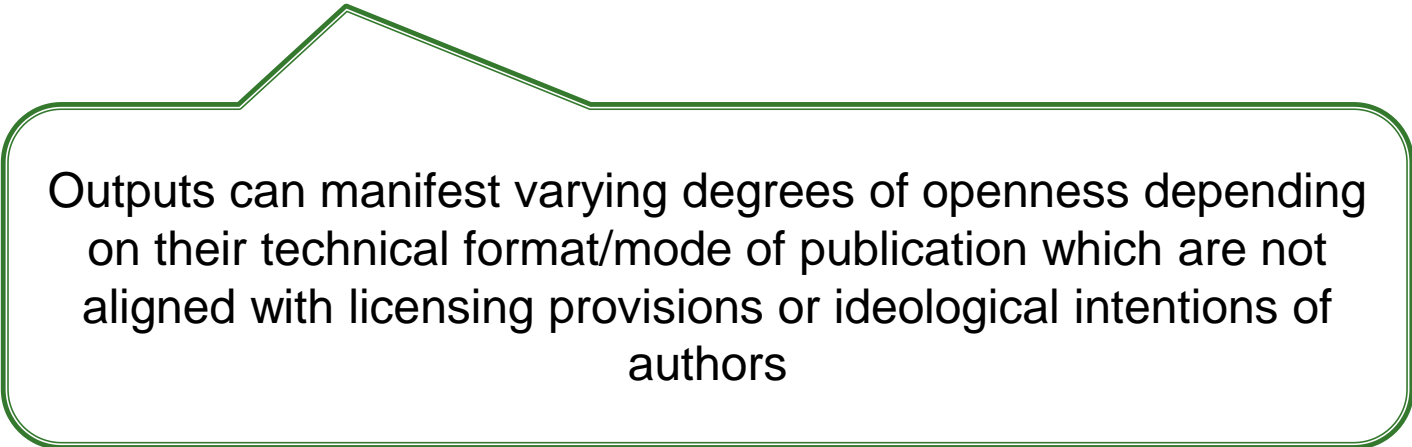Suggested citation: Willmers, M. (2015). ROER4D Data Publication Guidelines. Retrieved from: http://tinyurl.com/ROER4DDataPublicationGuide

Contents

Defining technical openness

Technical openness refers to

- the use of **open file formats and open software development standards** to ensure equitable access

- **publication platforms that support open licensing** and provide secure, long-term access to resources with adequate metadata to ensure discoverability;

- **openly published datasets** that allow for the data (and thus the analysis and conclusions) to be interrogated and elaborated upon.
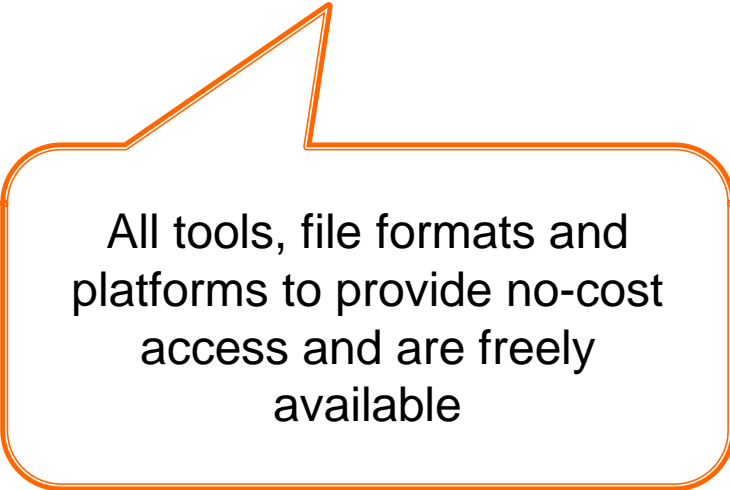
Outputs can manifest varying degrees of openness depending on their technical format/mode of publication which are not aligned with licensing provisions or ideological intentions of authors

Towards technical openness

Four elements that facilitate open research practices:

- **Collaboration** – project docs to be written & edited within and beyond network
- **Availability** – outputs to be hosted on secure , stable platforms for no-cost accessibility and discoverability
- **Revisability** – utilising open file formats (with open licensing)
- **Verification** – tools and instruments to support analysis and interrogation of research results.

All tools, file formats and platforms to provide no-cost access and are freely available
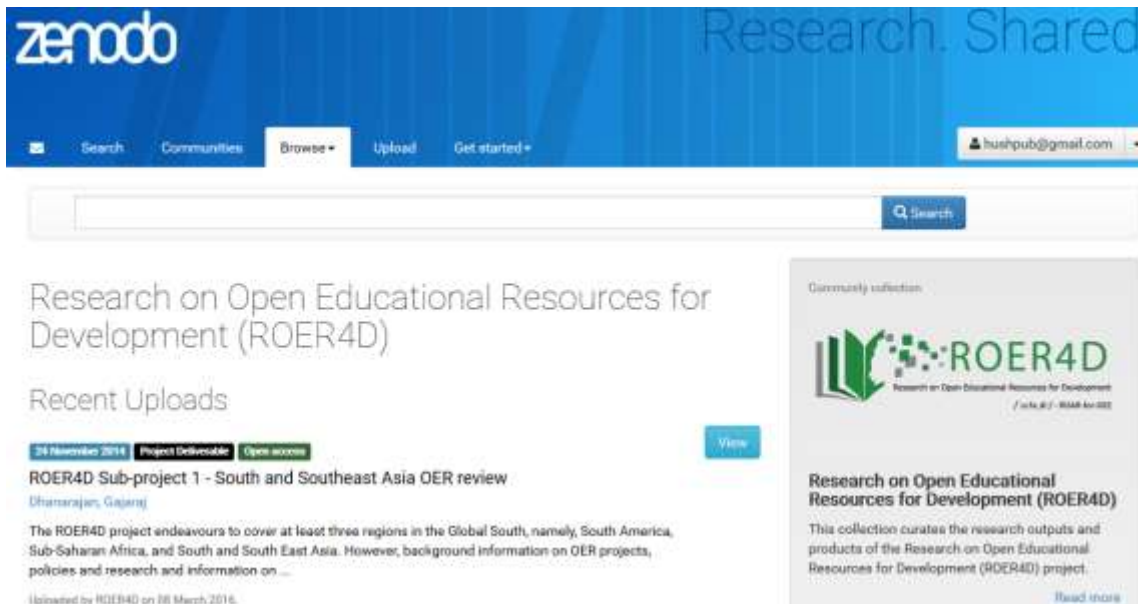
Towards technical openness - collaboration

- An intention of Open Research is to **enable collaboration between researchers**

- Use of cloud-based authoring tool Google Drive enables researchers and mentors to create, edit, review and comments across 16 time zones

- Due to limited connectivity and insufficient experience, Google Drive is used mainly by Network Hub Team but remains useful storage space and for viewing latest versions of documents

- Use less technically open tools such as MS Word when required
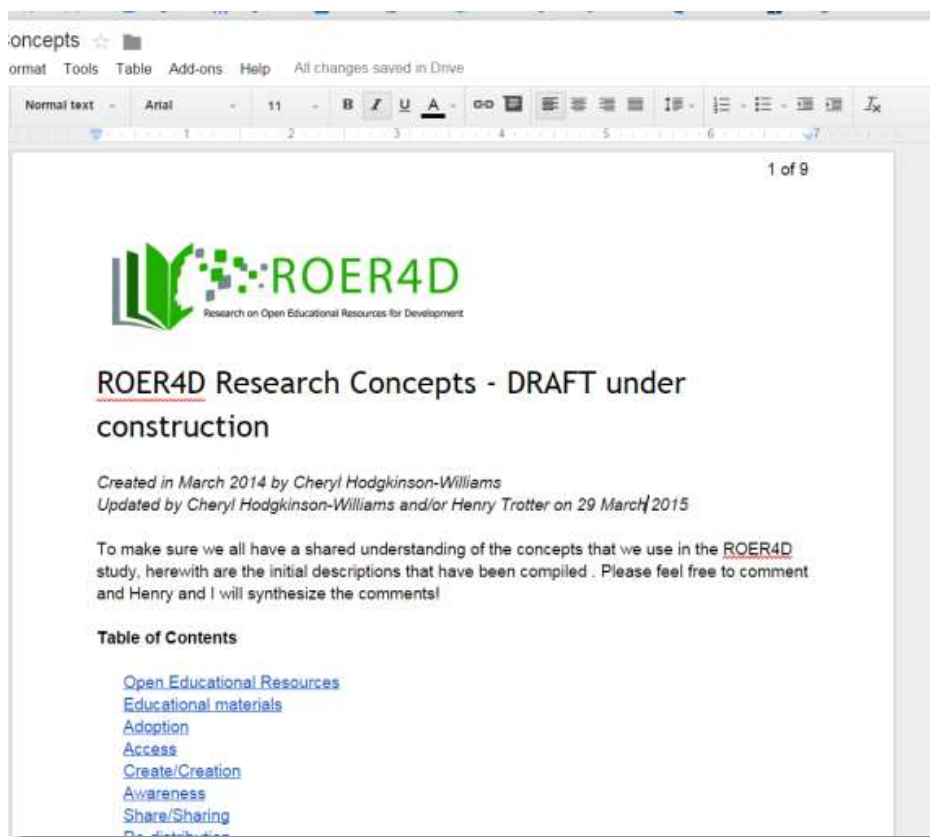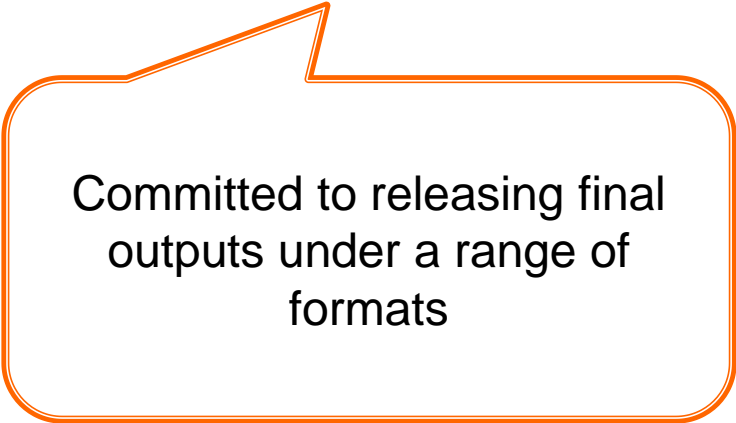
Towards technical openness - discoverability

- Open Research practice relies on **stable curatorial platforms** for sharing project outputs and to ensure outputs remain accessible after project ends.

- Need to support open licencing, support multiple content types and genres, assure long-term stability, zero-cost deposit or access; use of international metadata standards

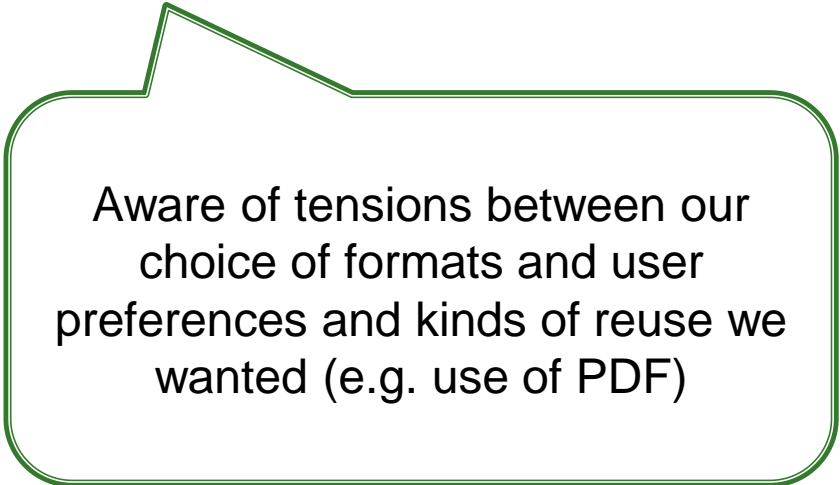- Online Open Repository platform such as FigShare, Zenodo and SlideShare remain options

Chosen Zenodo to host final research outputs

Towards technical openness - revisability

- File formats exist on a spectrum of technical openness: impacts on their accessibility, revisability and remixability

- More 'closed' formats can be viewed with free software (PDF/EPUB) but are less revisable without proprietary software.

- More 'open formats' such as ODT, ODS, HTML, XML allow for remixing of constituent elements using open source software

- Other formats such as MS Word facilitate reuse and revision and would be a popular choice but requires proprietary software

Committed to releasing final outputs under a range of formats

Aware of tensions between our choice of formats and user preferences and kinds of reuse we wanted (e.g. use of PDF)

Towards technical openness - verification

- Open Research practice implies a value-added component to the research process – interrogation of open data contributes to verifying the research

- Tool or platform requires access to data that underpins analysis and conclusions and to enable third-party and longitudinal/latitudinal studies. Partnered with DataFirst.

- To guide researchers, the project launched the ROER4D Open Data Initiative and developed a series of Guidelines for researchers to encourage data sharing

https://www.datafirst.uct.ac.za/

Defining operational openness

The **enactment of ideological, legal and technical principles** in the course of conducting research:
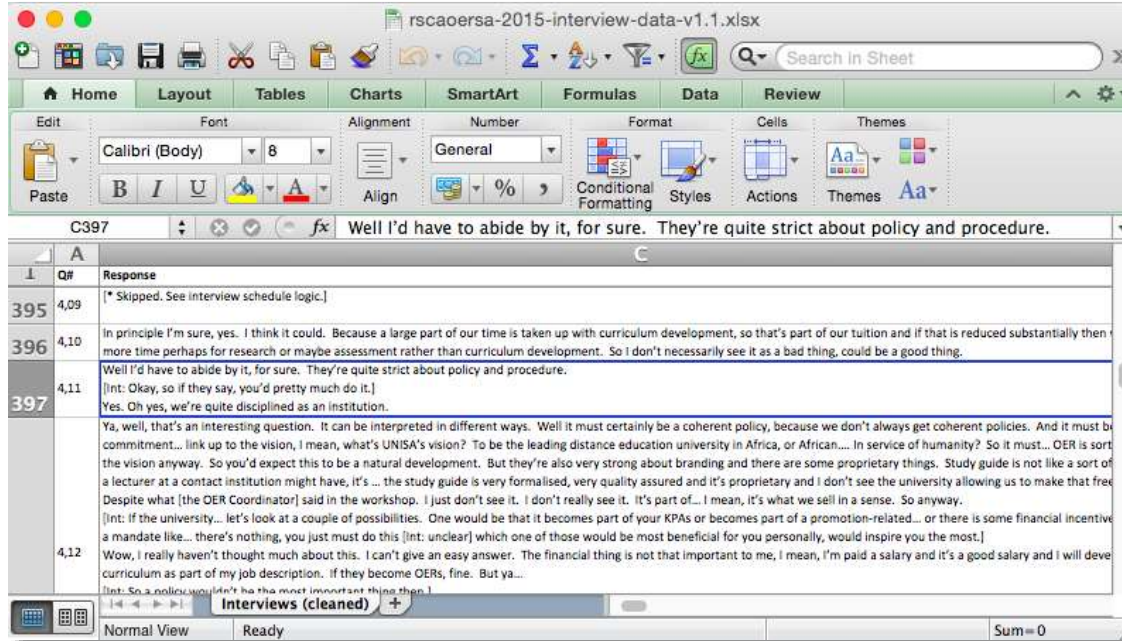
- Practices that emerge as a result of **critical reflection** on where to be more or less open as specific context dictates

- "if it adds value" has been a touchstone when grappling/choosing between commitment to ideological openness and when a more nuanced approach is required

- **An agile and strategic approach** to support research management process

Towards operational openness

Sharing and maintaining an open ROER4D Research Bibliography for reuse; sharing research instruments and some data

Open communications strategy: engaging stakeholders early in project and sharing early findings through website

Intention to release draft research reports for comment (mid 2016)

ROER4D BLOG 15 FEB, 2016

Following the money for OER: reflections on the ROER4D SP11 research project

Image courtesy of Libby Levi for opensource.com
As year-long SP11 sub-project "Public funding for basic education in South Africa: Are open educational resources being funded?" has come to a close, Sarah Goodier, Project leader...

Operationalising openness leads to "**critical openness**"

| Ideological openness | Legal openness | Technical openness | Operational openness |
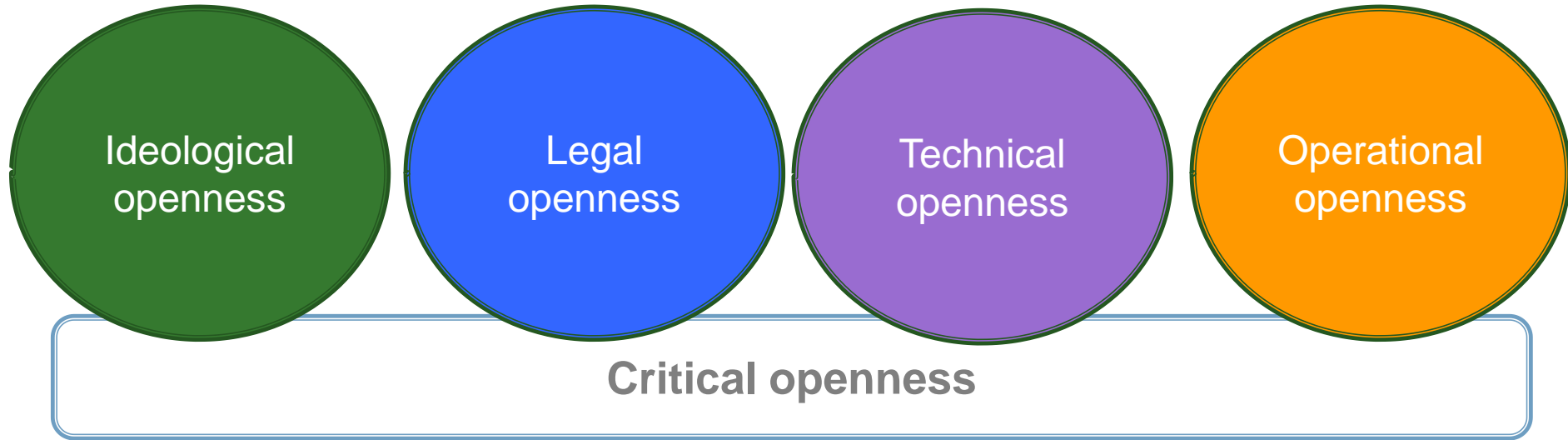
Critical openness

- Offer **"critical openness"** as a counterpoint to "radical openness"

- **Strategic decisions** need to be made with regards to which open practices will be practical for project, given time, resources, skills.

- **Difficulties with timing and sharing interim data** and analysis and respecting individual researchers' aims to mine own data first before public release

- "Critical Openness" is **a thinking tool** to apply to the lived reality and messiness of Open Research Practices

Full paper:
King, T., Hodgkinson-Williams, C. A., Willmers, M. & Walji, S. (2016). Dimensions of open research: Reflections on 'critical openness' in the ROER4D project. Open Praxis, [in press]

Thank you!

Questions?
Comments?

Links

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Presentations: www.slideshare.com/roer4D

Acknowledgments & Attribution

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