THE POTENTIAL CONTRIBUTION OF OPEN EDUCATIONAL RESOURCES TO E-LEARNING AND DISTANCE EDUCATION. 3RD E-LEARNING AND DISTANCE EDUCATION CONFERENCE LAHORE, PAKISTAN, 14-15 MARCH 2016.
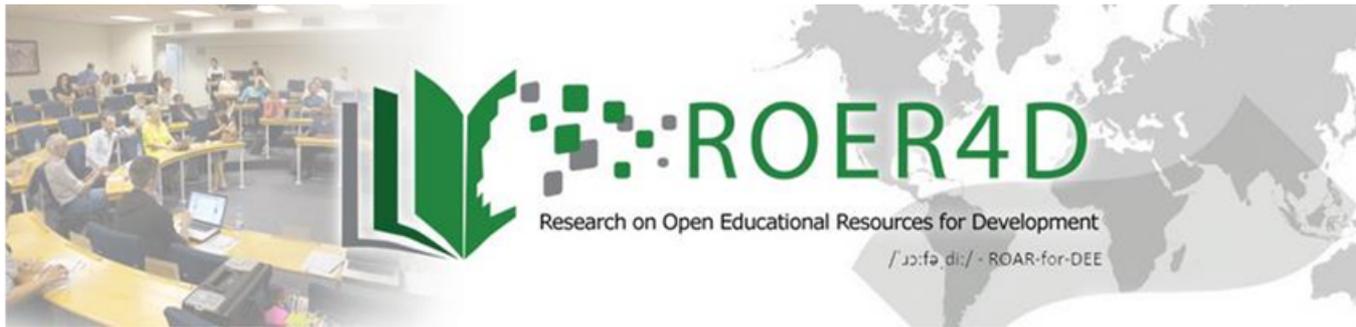
Arinto, P.B.;

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ROER4D

Research on Open Educational Resources for Development

/ˈrɔːfə diː/ - ROAR-for-DEE

The Potential Contribution of Open Educational Resources to e-Learning and Distance Education

Patricia B. Arinto
3rd e-Learning and Distance Education Conference
Lahore, Pakistan, 14-15 March 2016

http://www.slideshare.net/ROER4D/

IDRC ✳ CRDI

ROER4D
Research on Open Educational Resources for Development

UKaid
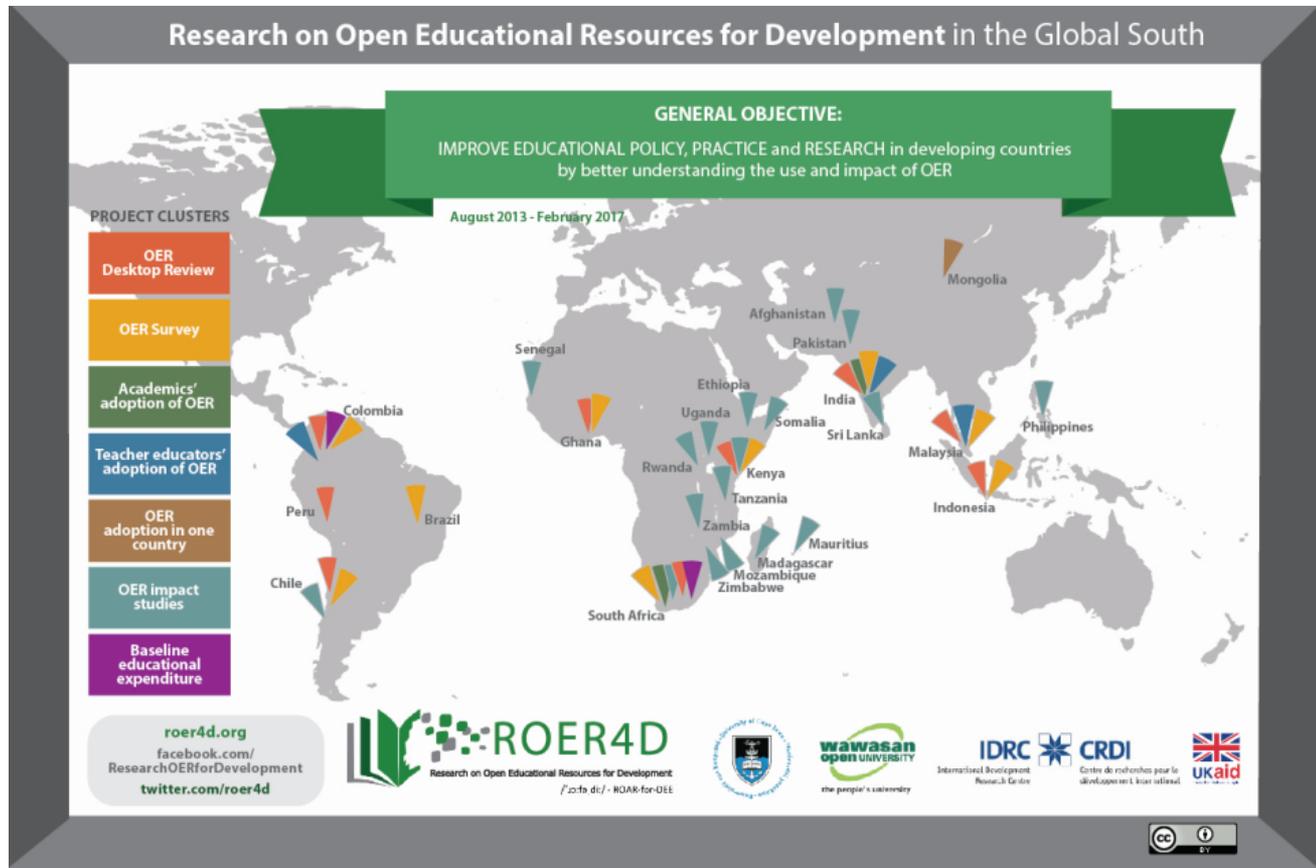from the British people

wawasan
open UNIVERSITY

Presentation Outline

1. The ROER4D project
2. OER and e-learning and distance education frameworks and models
3. Concluding note

Researching OER Adoption and Impact: The ROER4D Project

ROER4D:
Research on
OER Adoption
& Impact
in the
Global South

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

IDRC ✳ CRDI   ROER4D — Research on Open Educational Resources for Development   UKaid from the British people   wawasan open UNIVERSITY

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

ROER4D objectives

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
4. Communicate research to inform education policy and practice
5. 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

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ROER4D research question

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?
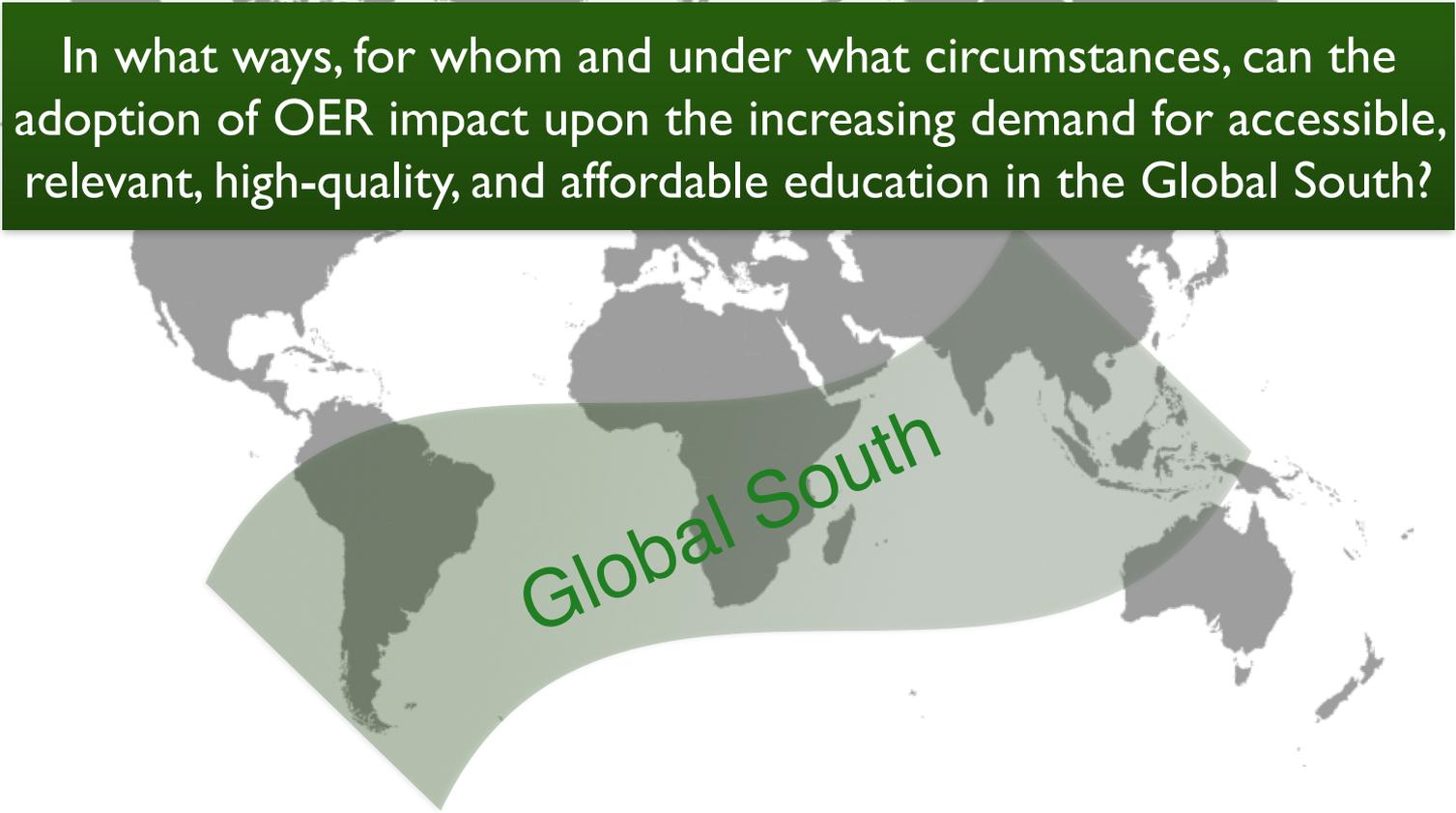
Global South

Key challenges facing education in developing countries

Education institutions under **political & financial pressure**

Rising numbers of students in the education sector

Expensive, limited in number, often **outdated** textbooks are **not entirely relevant** to the context

Reduction of educational funding by governments

Employability of graduates

http://commons.wikimedia.org/wiki/File%3APCoE_students_at_AICTE_Regional_Office_in_Mumbai.jpg

OER as part of a response to educational challenges

#Feesmustfall protests in Nov 2015 in South Africa

Open Educational Resources (OER) provide teaching and learning materials that are —

- easily available via the Internet

- more affordable

- localised in terms of content and language

- scrutinisable, editable

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 lecture notes

Any learner or teacher

Free videos

5Rs of OER (Wiley, 2014)

Retain

Reuse

Revise

Remix

Redistribute

(Lumen Learning, 2014)

Open textbooks become popular source of affordable content

By Tara García Mathewson | February 22, 2016 🖨 print

f share   🐦 tweet   in post   ✉ email
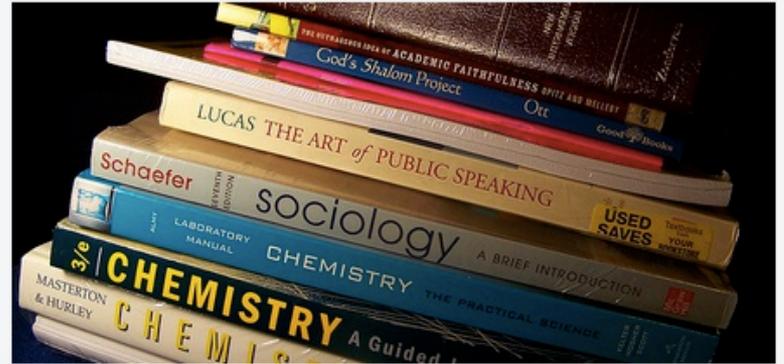
ROER4D 7 Research Clusters

SP1 - 3 regions

OER Desktop overview

SP11 & 12 - 6 countries

Baseline educational expenditure

SP2 - 9 countries

Survey of OER adoption by academics & students

SP9 & 10.1-7 - 15 countries

OER impact studies

ROER4D Network hub

SP3 & 4 - 2 countries

Academics' adoption of OER

SP8 - 1 country

OER adoption in one country

SP5,6 & 7 - 3 countries

Teacher educators' adoption of OER

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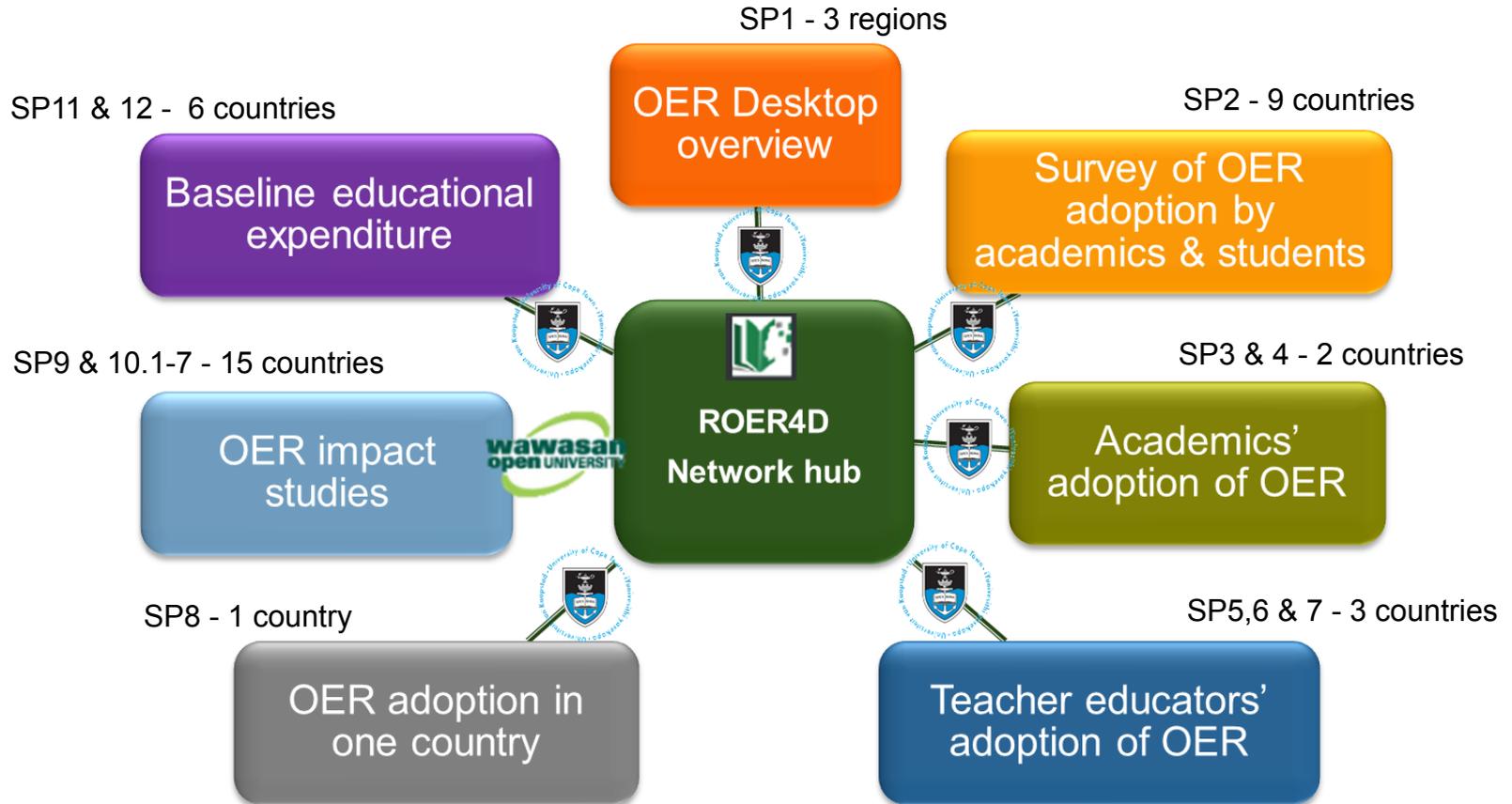
ROER4D relationships being investigated

INFLUENCING FACTORS
(See Archer)

- *Structural:*
  - Infrastructure
  - Policy
  - Repositories
  - ...
- *Cultural*
  - Compliance culture
  - Management styles
  - ...
- *Agential*
  - Will / volition

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

OER as the object/product
OER as a practice/process
Awareness
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

OER and e-Learning and Distance Education (DE) Frameworks and Models

Context: Evolution of DE and online learning

▸ *From* print-and-post DE
  to computer-mediated and online DE

▸ DE "generations" (Taylor, 2001;
  Anderson & Elloumi, 2004)

  - correspondence study

  - mass media-based DE

  - telelearning

  - VLE and LMS-based networked learning

  - Semantic Web-based networked learning (use of social media, PLEs, and mobile technologies)

Context: Online DE course models (Mason, 1998; Jara & Fitri, 2007)

Content + Support Model

– Content usually in print form; tends to be static over time
– Guided study of content
– Some basic collaborative activity among students, peer commenting and/or online assessment
– Tutoring by email or a conference system

Wraparound Model

– A more resource-based approach: study guides are prepared to wrap around existing materials like textbooks
– Some content is created each time the course is run, through discussions and activities

Integrated Model

– Content is generated from discussion (discussion-based)
– Content is dynamic, mostly determined by group activity around learning resources
– No distinction between content and support

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Affordances of OER for DE and online learning

✓ OER can lower the cost of DE course materials

✓ OER can improve the quality of DE course materials

✓ OER can improve the quality of online teaching and learning

How OER can lower the cost of DE course materials

▸ OER are usually **free of charge** (i.e. no fees for use and adaptation)

▸ OER-based modules require **less time to develop** because there is no need to create the resources themselves, and one does not need to wait for permission to use the existing resources

▸ OER-based modules can be developed by individual faculty, with minimal or no technical support — **"reduced version of course team approach"** (Power, 2007)

▸ There is **zero or minimal recurrent/variable cost** (e.g. access/user fees for proprietary materials) for OER-based modules

How OER can improve the quality of DE course materials

‣ Improvement in content accuracy, currency, relevance, and range
- use of resources authored by experts in specific fields
- content is easy to update (resources can be quickly replaced)
- use of "authentic" resources
- use of resources reflecting different perspectives

‣ Use of different media types to different types of learners and learning "styles"
- use of text, audio, video, animation, multimedia
- use of narrative, interactive and adaptive media (Laurillard, 2002)

Media types and the learning tasks they support
(Laurillard, 2002; Beetham, 2007)

Media type	Learning task supported or mediated	Example (digital tool or resource)
Narrative	Information assimilation	e-books, podcasts, Web pages, slide presentations
Interactive	Exploratory or investigative tasks	search engines, portals, databases, tutorials
Adaptive	Experimentation and practice	virtual worlds, simulations, games
Communi-cative	Communication and collaboration	email, chat/instant messaging, Web
Productive	Generation or construction of own representations	authoring tools, editing/ processing tools, blogs, wikis

How do the media types map on to the 5Rs? What types and levels of OER use are fostered by which media types?

How OER can improve the quality of online teaching and learning

▸ Use of OER (i.e. learning activities involving reuse, revision, remixing, and redistribution of OER) can foster greater interaction between —

- learner and content (engagement)

- learner and co-learners (collaboration)

- learner and teacher (shift from transmitting knowledge to guiding, supporting, and assessing learning)
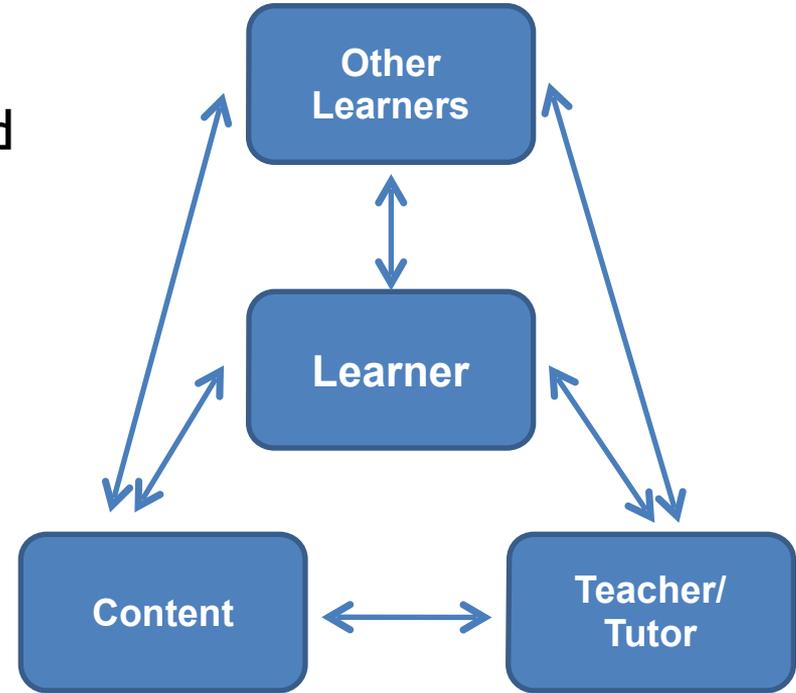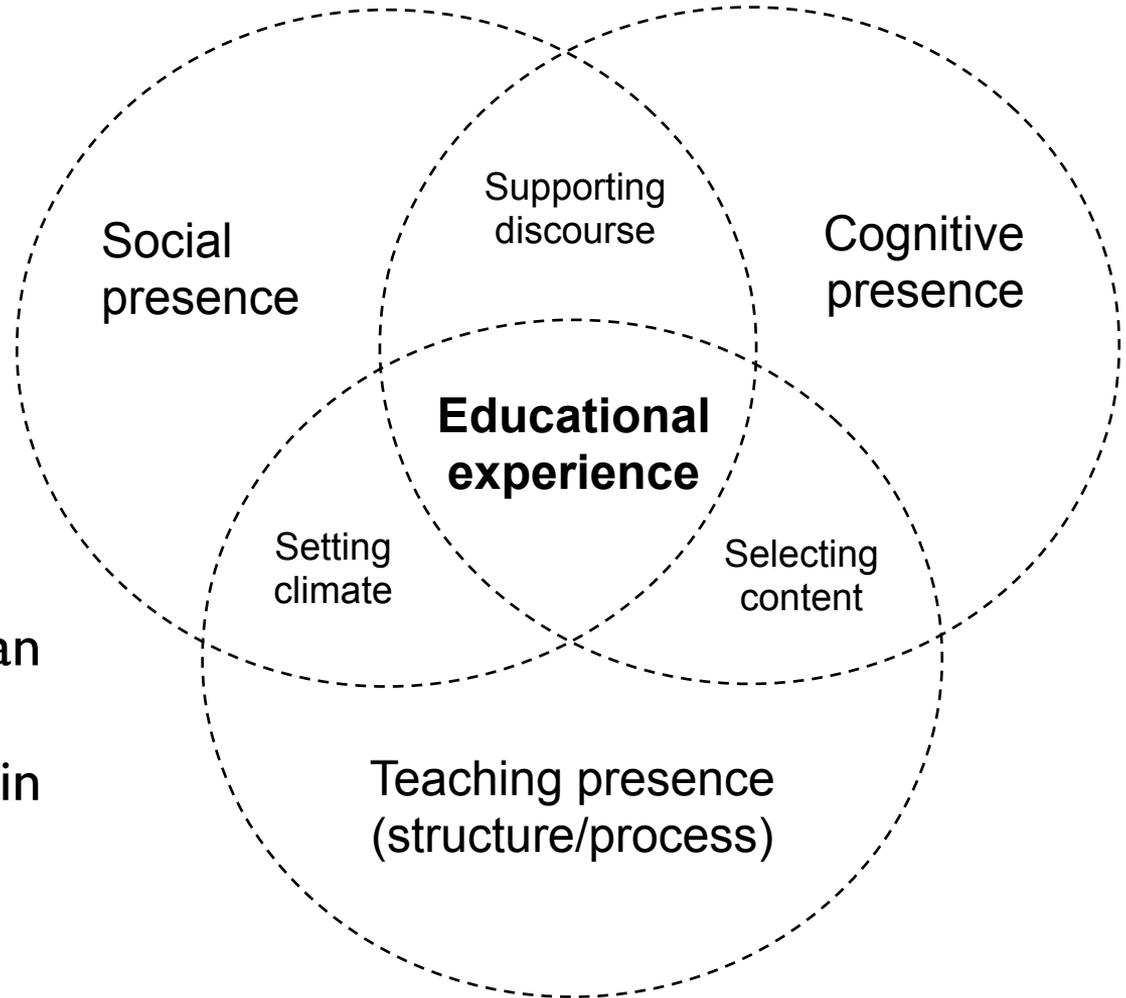

(Moore, 1987)
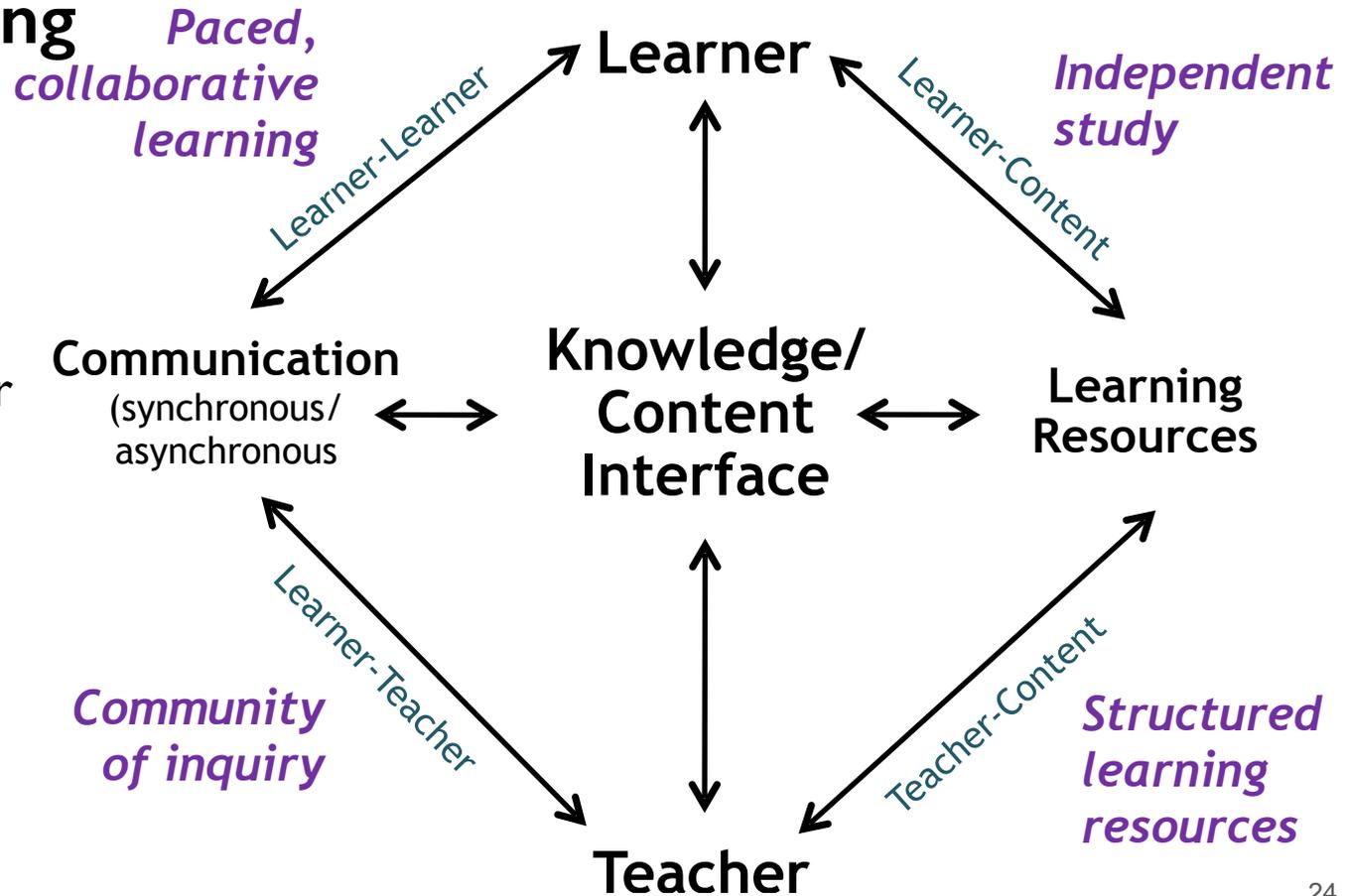
Cognitive Inquiry Model
(Garrison & Anderson, 2003)

▸ Use of OER (i.e. learning activities involving reuse, revision, remixing, and redistribution of OER) can enable learners to demonstrate multi-domain and higher-level learning

Social presence

Supporting discourse

Cognitive presence

Educational experience

Setting climate

Selecting content

Teaching presence (structure/process)

Online Learning Model
(Anderson, 2008)

▸ Use of OER (i.e. the 5Rs) can foster independent and self-directed learning

▸ Use of OER can help to make DE provision more flexible

Paced, collaborative learning

Learner

Independent study

Learner-Learner

Learner-Content

Communication
(synchronous/ asynchronous)

Knowledge/ Content Interface

Learning Resources

Learner-Teacher

Teacher-Content

Community of inquiry

Structured learning resources

Teacher

Concluding note

‣ Need to investigate the impact of OER in the context of the changing emphasis in DE (Burge & Polec, 2008; Anderson & Dron, 2011)

from **Content** (high quality, pre-designed materials; behaviorist-cognitivist pedagogy)

to **Connection** (interaction and dialogue; constructivist pedagogy)

to **Community** (aiming for group synergies in a medium that enable both self-interest and group-interest behaviours; connectivist pedagogy; emphasis on 'produsage' — i.e. production as consumption of educational content in/through networks)

OER in/and Distance Education: a research agenda
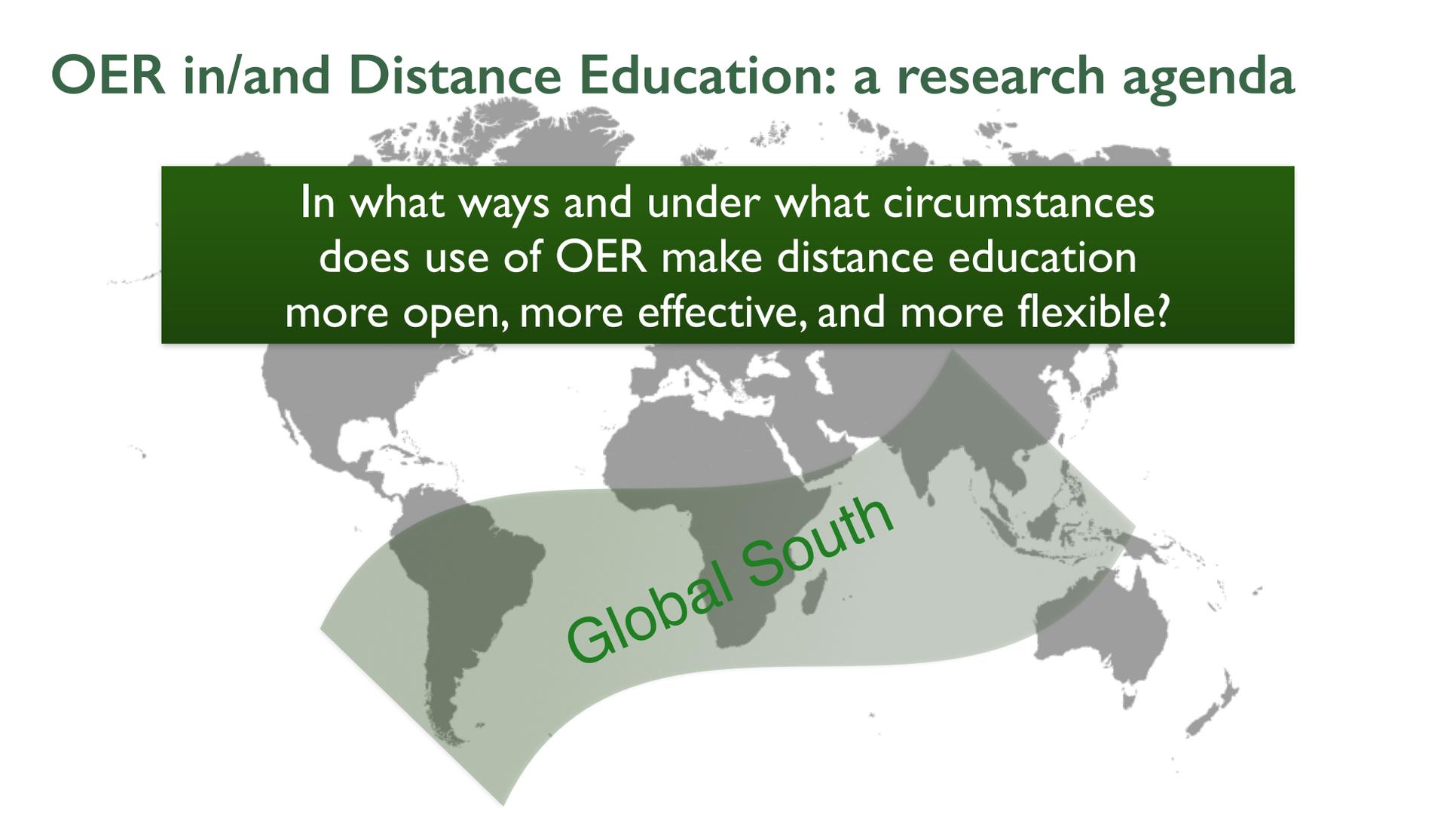
In what ways and under what circumstances
does use of OER make distance education
more open, more effective, and more flexible?

Global South

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