CARL VON OSSIETZKY universität OLDENBURG

COER Center for Open Education Research

Open educational resources in distributed learning infrastructures

An international comparative study

Strategies Beyond Borders Conference
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Presented by Melissa Bond

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Project Background

Importance of Open Educational Resources (OER) in Higher Education[1]

- Potential to increase access
  - Lower cost
  - Rural, remote, lower-socio economic students
  - Lifelong learners
  - Time-poor workers who require upskilling

Germany lacks infrastructure and national access to digital educational resources

- EduArc project
  - University of Duisburg-Essen
  - German Institute for International Educational Research
  - Leibnitz Information Centre for Economics
  - Carl von Ossietzky University of Oldenburg
- 11 work packets
- https://uol.de/coer/research-projects/projects/eduarc

1. See Bossu & Meier, 2018; Orr, Rimini, & van Dame, 2015

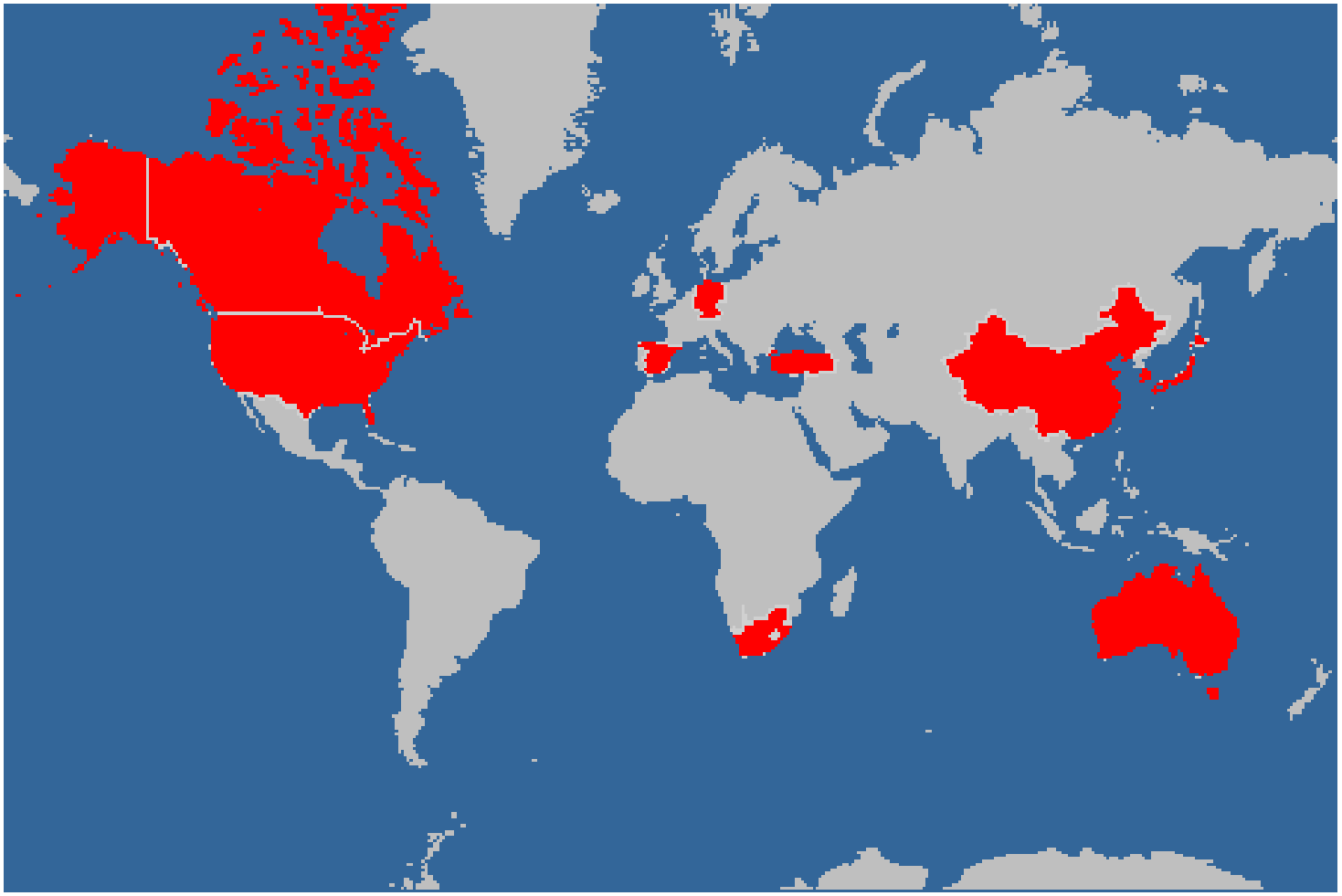
Research Questions

1. How can a distributed infrastructure be designed (according to pedagogical, organisational and informational criteria), in order to realise the provision of educational resources across institutions and internationally?

2. How can (open) educational resources and study-related information, that are being provided across higher education institutions, be integrated into the systems of one higher education institution? What are the necessary success factors/conditions for the exchange?

3. How are open educational resources developed, (re)used, provided and integrated into higher education learning and teaching? How can feedback from students and teachers be used and organised to inform quality assurance?

International Study



International Study

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Turkey	Dr. Yasar Kondakci, Dr. Hakan Aydin, Dr. Aras Bozkurt
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Higher Education Contexts

Country	Population	University students	HEIs	Universities
China	1,404 Million	37.8 Million	2,914	2,631
US	327 Million	20.2 Million	5,867	4,298
Japan	127 Million	0.66 Million	1,200	778
Germany	83 Million	2.8 Million	396	121/218
Turkey	80.8 Million	7.5 Million	205	200
South Africa	57.7 Million	1.0 Million	143	43
South Korea	51.5 Million	0.73 Million	359	191
Spain	46.9 Million	1.6 Million	145	87
Canada	37.6 Million	1.4 Million	234	72
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Overarching Topics

Overarching topics	Macro	Meso	Micro
Infrastructure	central-decentral	(federal) regional networks	local environment
Quality	national standards	institutional quality assurance	local policies
Policy	national policies	regulatory frameworks	quality of (O)ER
Change	national planning, funding	strategy, organi-sation, prof. dev.	incentives, support

Stage One: Macro Level

Overarching topics	Macro
Infrastructure	central-decentral
Quality	national standards
Policy	national policies
Change	national planning, funding

Infrastructure	How can a national or state-wide (technical) infrastructure of (O)ER be described? What is the technological and technical set-up behind it (meta-data standards, host servers etc.) and how is it maintained? What is the relation between public and commercial entities involved?
Quality	Do national standards exist with regard to (O)ER and their creation, dissemination and quality assurance? Who are the actors involved in setting and assuring them? How do they relate and adhere to international e-learning standards and specifications?
Policy	What national or state-wide policies are currently being discussed or are in place with regard to digital infrastructures and their implementation? Which actors are involved?
Change	How is change (in terms of funding, managing and promoting the infrastructure) promoted at the national level? Who drives change on this level?

Understanding of (O)ER

Definition by UNESCO (2012) reaches broad agreement across countries

Open Education Resources (OERs) are teaching, learning and research materials in any medium -digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no limited restrictions

- William and Flora Hewlett Foundation (Canada)
- OER Foundation (Australia)

Conceptions of OER differ, according to understanding of education

- Public v Private good (e.g. Germany and US)

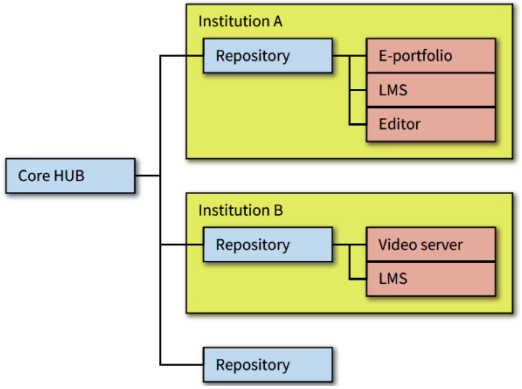
In some countries, OER are more popular in K-12 than in HE

- E.g. Japan, Spain and Australia (e.g. Scootle, National Digital Learning Resources Network)

Infrastructure

Decentralised structural countries do not have (O)ER repositories, or have underdeveloped infrastructures at the macro level

- South Africa: no plan for it
- Germany: where many federal states have/are developing their own federal repository, a possible solution is the one proposed by EduArc of creating a hub for all of them



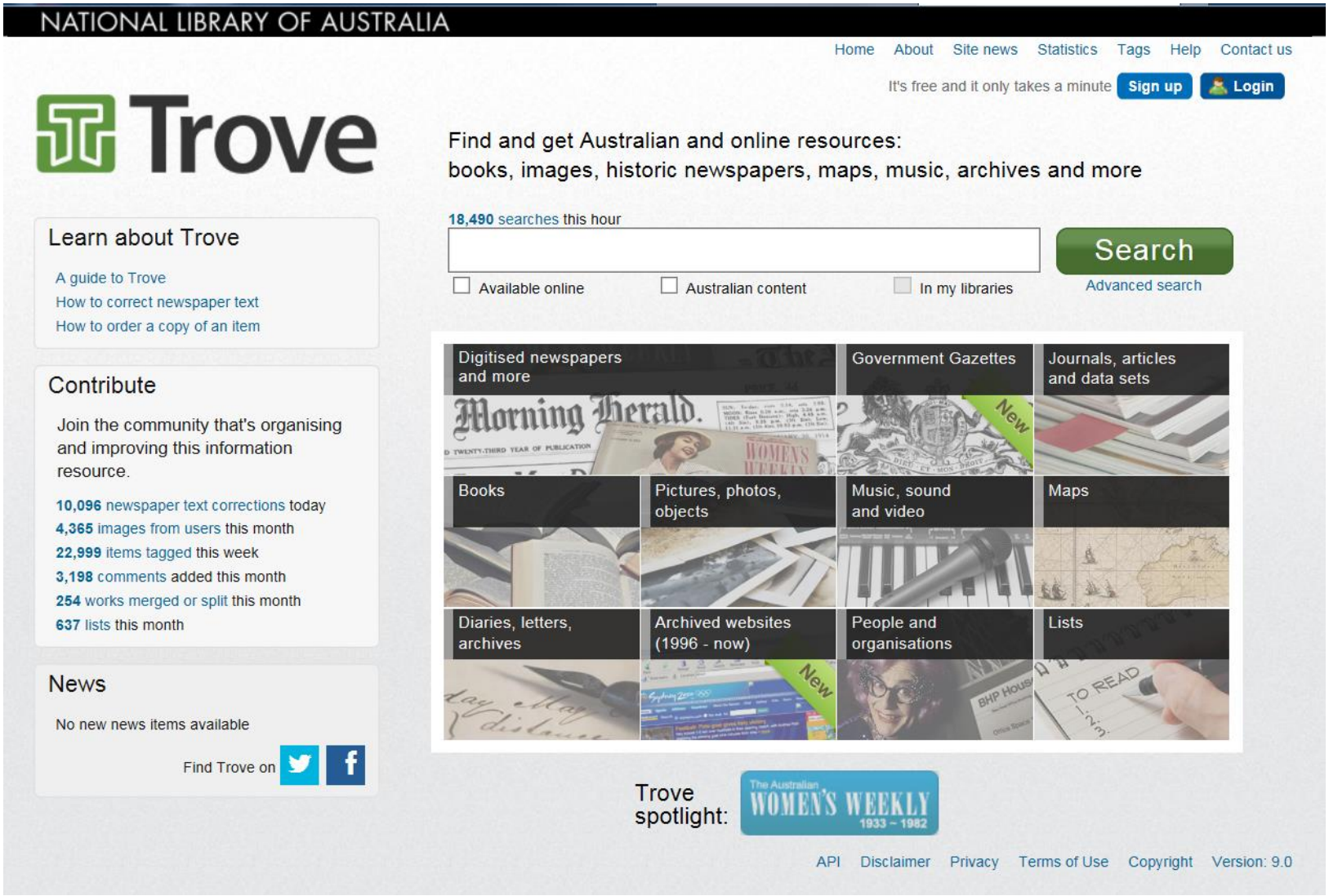
Infrastructure

Many centralised countries have national infrastructure, but most of them not in HE or not specifically for (O)ER.

Exceptions:

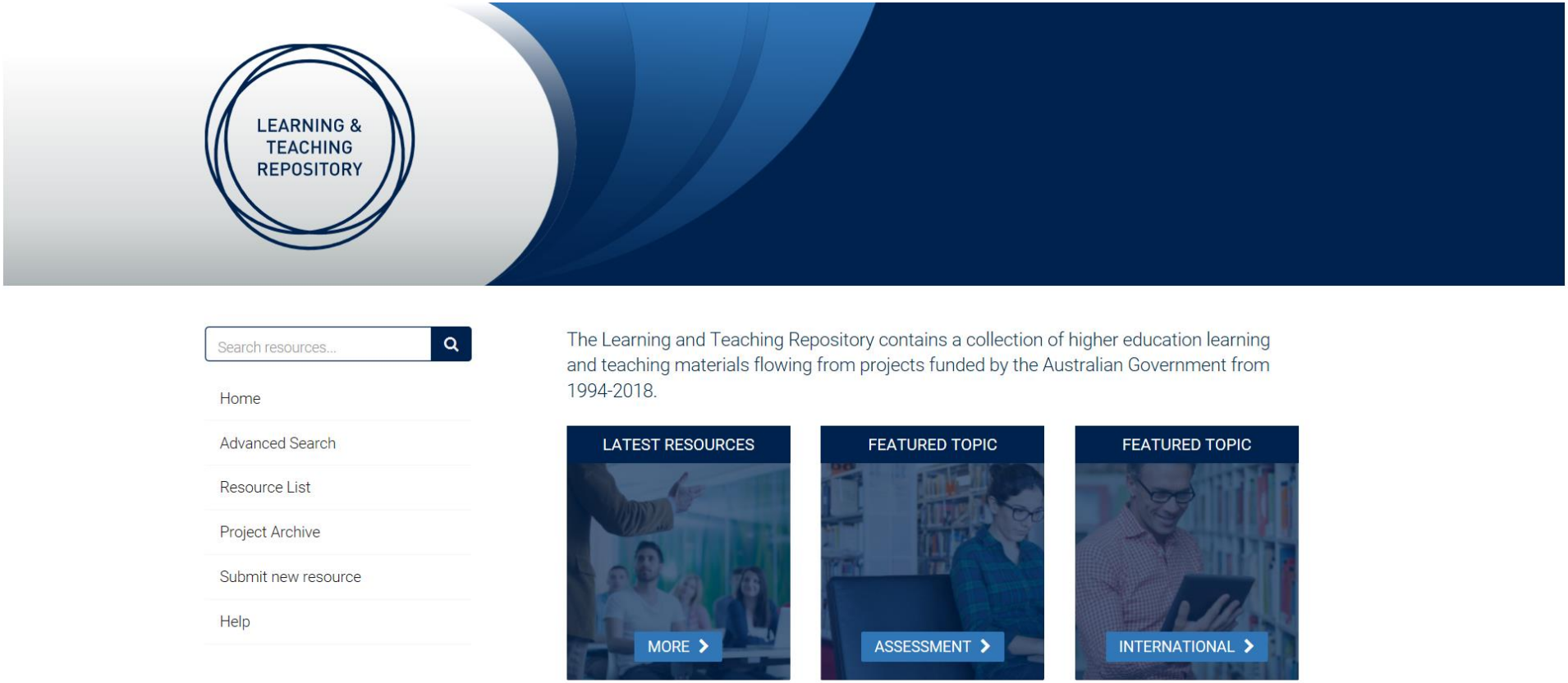
- China: national repository, www.jingpinke.com
- Korea and Japan: national MOOCs and OCWs
- Spain: national infrastructure to harvest institutional repositories, thematic repositories, journal portals and OA journals

Infrastructure
Australian Examples



https://trove.nla.gov.au/

Infrastructure
Australian Examples



https://ltr.edu.au/

Infrastructure
Australian Examples

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OPEN EDUCATION LICENSING

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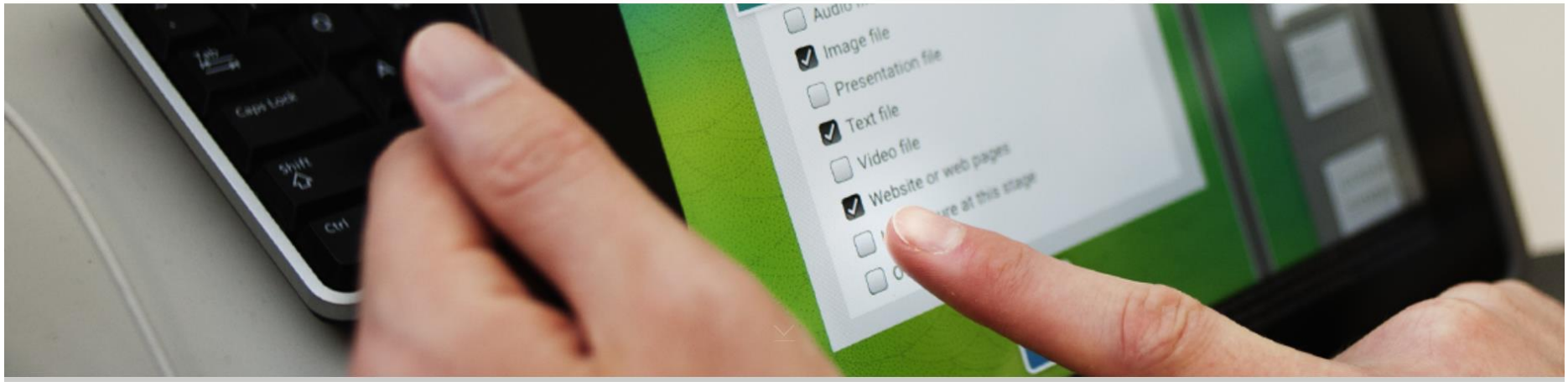
Effective open licensing policy and practice for Australian universities



Welcome to the home of the OEL Toolkit

The Open Education Licensing Project was a joint research and development project undertaken by Swinburne University of Technology and the University of Tasmania in 2015/16. In 2015 the project team surveyed and collected information from managers, educators and information professionals in Australian universities about their understanding and experiences with licensing issues for open online education. On the basis of information collected, in 2016 the team developed the OEL Toolkit to support the use and development of Open Educational Resources (OER) in the Australian higher education sector.

http://www.oel.edu.au/

Quality

Most of the countries do not have any national standards or quality frameworks for (O)ER and their infrastructure.

- quality assurance procedures in HE in general (e.g. Canada, Turkey)
- checklists, guidelines or evaluation guides (e.g. Germany, Korea, Australia, Spain – in development)
  - Australia: *Supporting OER engagement at Australian Universities* (Scott, 2014) and *Feasibility Protocol* (Bossu, Brown, & Bull, 2014)

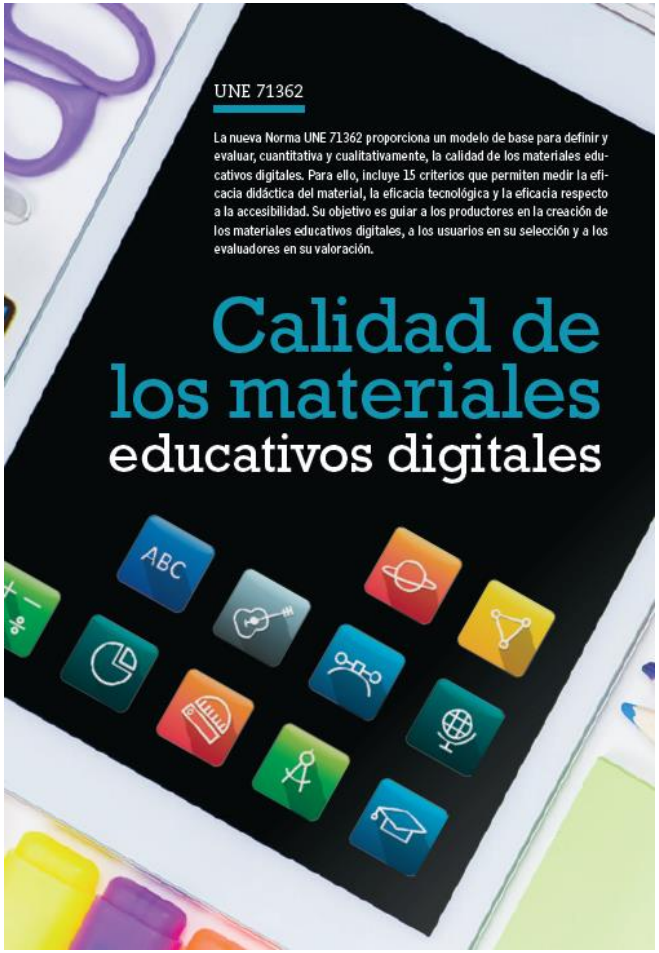
Figure 1: The Feasibility Protocol

Bossu, Brown, & Bull (2014, p. 6)

Quality

Korea, Japan, China and Spain highlight standards for (O)ER quality

- The standards from the Asian countries seem to focus on the standarised labelling of (O)ER (metadata), not on the quality of their content
- Spanish standard for (O)ER quality: *UNE 71362:2017 for the quality of digital educational materials*
- US: many organisations are involved, e.g. Online Learning Consortium, Educause.



Policy

Responsibility for own digital transformation - higher number of private universities (e.g. Japan, Korea, US)

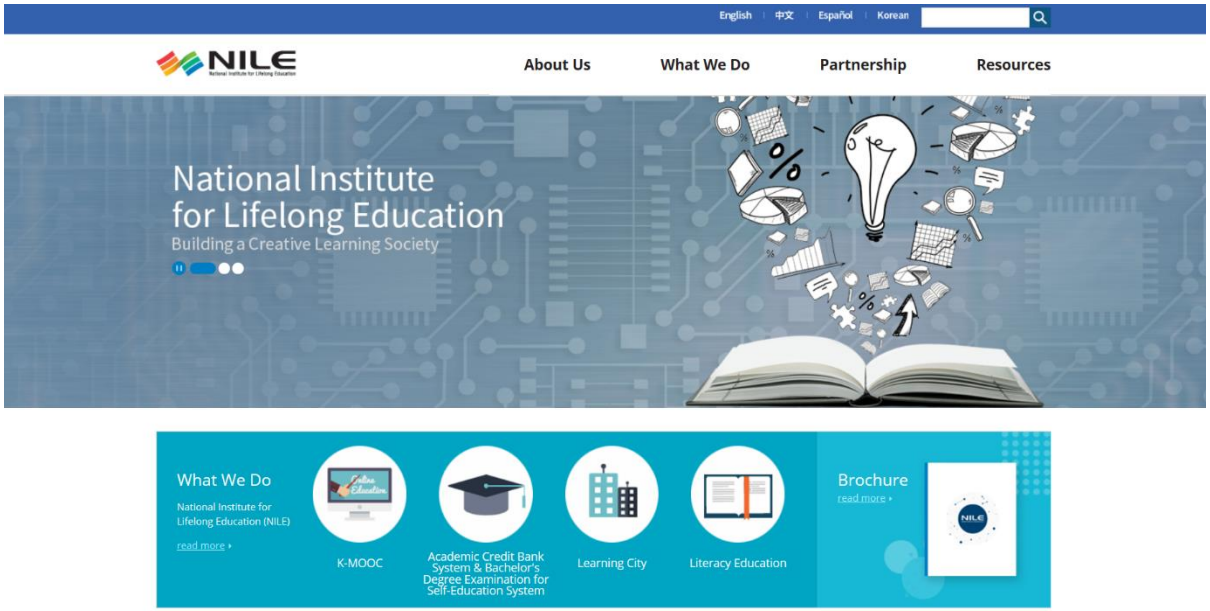
- Support from government varies greatly
  - China: Action Plan for Educational Digitalisation 2.0, Education Modernisation 2035
  - Korea: government support to establish e-Learning support centres, funded collaborative content
  - Japan: Grand Plan for Japanese Higher Education 2040 highlights importance of ICT to improve T & L, but does not establish follow-up plans or support.
  - Australia: Focus on Open Government and school/VET sector, recommendation for a National Open Access Policy in 2017 - has not appeared

Strong influence of country political structures on the (lack of) infrastructure development for (O)ER

- Recommendations (decentralised) (e.g. US, Germany)
- Laws and regulations (centralised) (e.g. South Africa, China)

Priority and speed of uptake (O)ER in HEIs, along with digital transformation, is diverse

- Germany, Japan = low
- China, Korea, US = high
- Featured as part of HE strategy in Turkey and South Africa

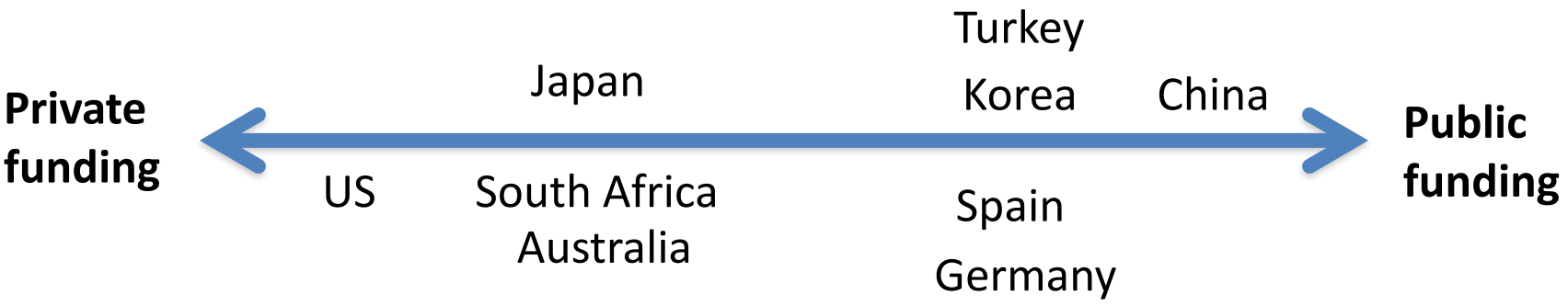


http://www.nile.or.kr/eng/

Change

Change happens mostly at the:

- National level: China, Korea and Turkey
- Province/state level: Germany, Canada, Spain
- Institutional level: South Africa, Japan, Spain, Australia
- Lead by individual faculty members: US, Japan



All the countries mention national funding initiatives, although some of them also private ones

- US: Hewlett Foundation, Gates Foundation, Open Society Foundation
- Spain, China - individual, one-off awards

Conclusion and Next Steps

It is vital to consider socio-cultural context

- Socio-economic and political context are major influences on HE (O)ER infrastructure and change

Limitations of method

Recommendations so far:

- National (and state) legislation alongside recommendations
- Measures for promoting change, e.g. funding initiatives
- Quality assurance mechanisms, e.g. development of standards and ensuring compliance

Next steps:

- Meso level analysis (institutional level)
- Micro level analysis (teaching and learning level)
- Some countries undertaking major surveys and interviews

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