



UNDERSTANDING THE GLOBAL OER LANDSCAPE

February 2019

Open Educational Resources
Program



OVERVIEW

HEWLETT CONTEXT

RESEARCH

FUNDERS

FIELD

NEXT STEPS



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HEWLETT'S LATEST STRATEGY IN 2015 AIMED TO SCALE ADOPTION

THE HEWLETT FOUNDATION *will* **SUPPORT USE** *of* **OER** *to* **ADDRESS CRITICAL PROBLEMS** *in* **EDUCATION**

OPPORTUNITIES
(e.g. exploratory grants for future pathways)

PROGRAM DOMAINS AND PATHWAYS



POSTSECONDARY

Open textbooks for the most enrolled courses, zero textbook cost degrees in community colleges, and future opportunities



K-12

Common Core instructional materials, educational materials in the developing world, and future opportunities



INFRASTRUCTURE INVESTMENTS

Technical basis, leadership, anchor institutions, research capacity



OER OUTCOME

OER are widely used as primary materials in mainstream education, enabling effective teaching and learning



GOAL

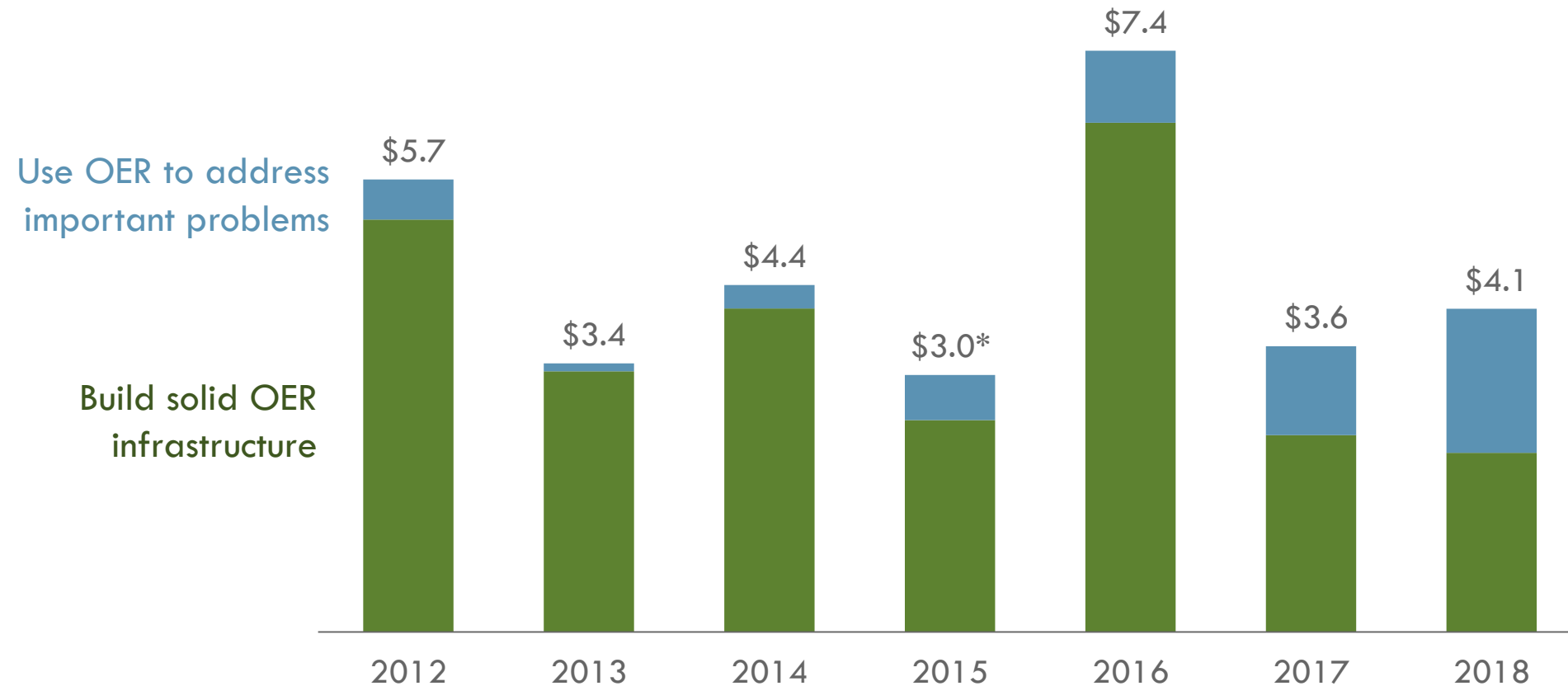
Underserved students have greater access to education and receive personalized instruction that improves learning

To view the strategy, visit: <https://hewlett.org/wp-content/uploads/2017/02/OER-strategy-memo.pdf>



GLOBAL GRANTS FOR ADOPTION AND OPEN EDUCATION PRACTICE HAVE GROWN WHILE INFRASTRUCTURE REMAINS A FOCUS

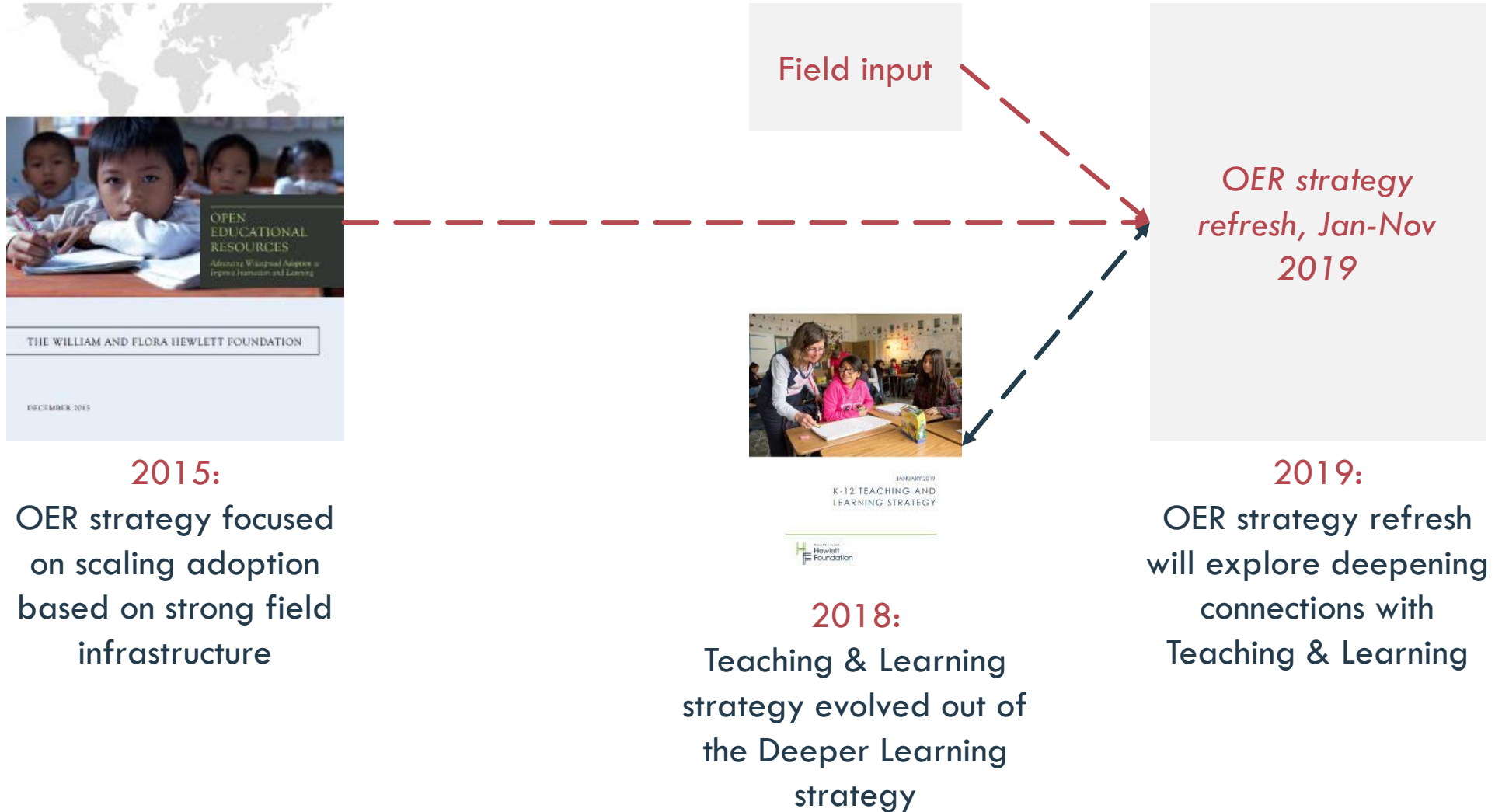
Hewlett Foundation global grants and DCAs* (\$M, 2012-2018)



*Excludes \$10M one-time grant to Creative Commons and \$8M one-time grant to the US-focused Achieving the Dream OER Degree Initiative. Grants and DCAs that include US and international components count only the estimated international share. Grant analysis is intended to illustrate directional themes and is based on internal estimate of shares of each grant devoted to different areas of work.



THE FOUNDATION IS REFRESHING ITS OER STRATEGY IN 2019



THIS PROJECT AIMED TO PROVIDE BACKGROUND ON THE GLOBAL OER LANDSCAPE BEFORE THE REFRESH



Over six months, scan the field to:

- Understand the existing evidence base outside the US context, including priority research and potential gaps to be filled
- Identify current and prospective global OER funders for possible engagement
- Examine the development of the OER field and what is needed to continue to assure its growth

IT SOUGHT TO ADDRESS THREE QUESTIONS



- What metrics do the OER community and funders use to assess and demonstrate success, and are they consistent? [Interviews, research, Open Education Leadership Summit (OELS)]
- Who else invests in global OER initiatives, and what are their interests and levels of support? [Interviews, research, OELS]
- What are current opportunities and challenges in the global OER field? [Interviews, OELS]

SELECT EXPERT INPUT WAS CENTRAL TO UNDERSTANDING THE LANDSCAPE

18 interviewees from...



Brazil



Canada



France



Ireland



Malaysia



Mexico



Poland



South Africa



UK



United States

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THE LANDSCAPE AIMED TO SURFACE REPRESENTATIVE RESEARCH ARTICLES AND PATTERNS IN THE RESEARCH LANDSCAPE



- Identify research themes and methodologies around the world
- Surface exemplars from each region that illustrate key themes of regional interest
- Understand connections between research areas and potential implications for future research
- Empower the field to build on the database as a shared resource



THE APPROACH WAS TARGETED RATHER THAN COMPREHENSIVE

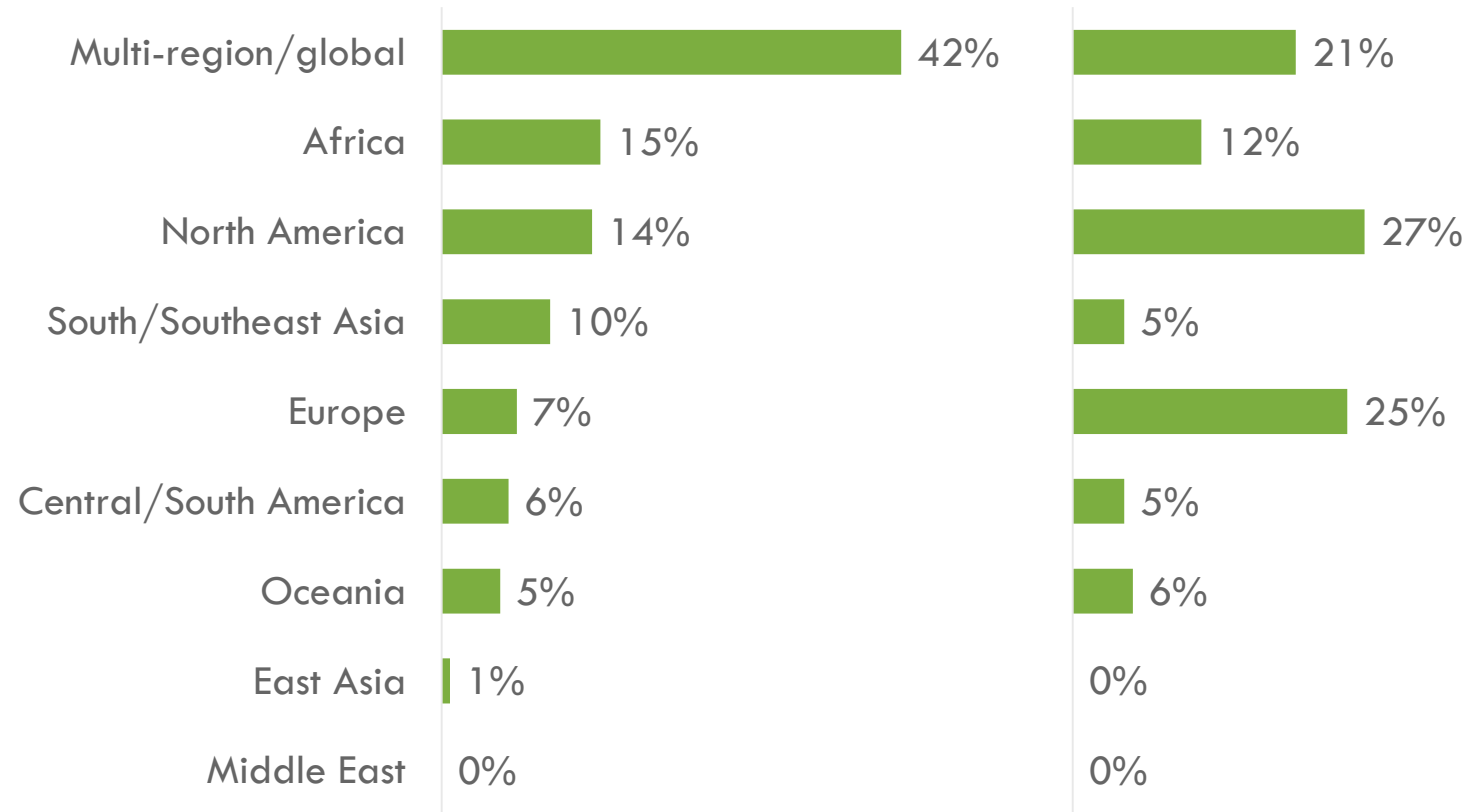
- Began with **expert** interviews to understand trends and gather recommended articles
- Focused on more **recent** publications, including academic research, policy pieces, and thought pieces
- Constrained by **English language-only** articles
- Sought pieces that are more **likely to be influential** in the field (e.g., recommended by experts, listed on key OER sites like GO-GN, OER Research Hub, Commonwealth of Learning, OECD iLibrary, ROER4D, etc)
- Filtered US-based research to include only findings that were **non-US-specific** (e.g., pedagogy in a college context, not policy implementation in a K-12 district)
- Designed to **complement more academic research-focused** and comprehensive landscape efforts (e.g., ROER4D, GO-GN)



THE SCAN COVERED ~150 ARTICLES FROM AROUND THE WORLD

% of all studies about region
(N=130*)

% of all studies with researchers based in region[†]
(N=126*)



*Additional studies were identified but not analyzed in detail. Studies were prioritized for detailed review based on a balance of recency, prominence or expert recommendation, geographic diversity, and capacity.

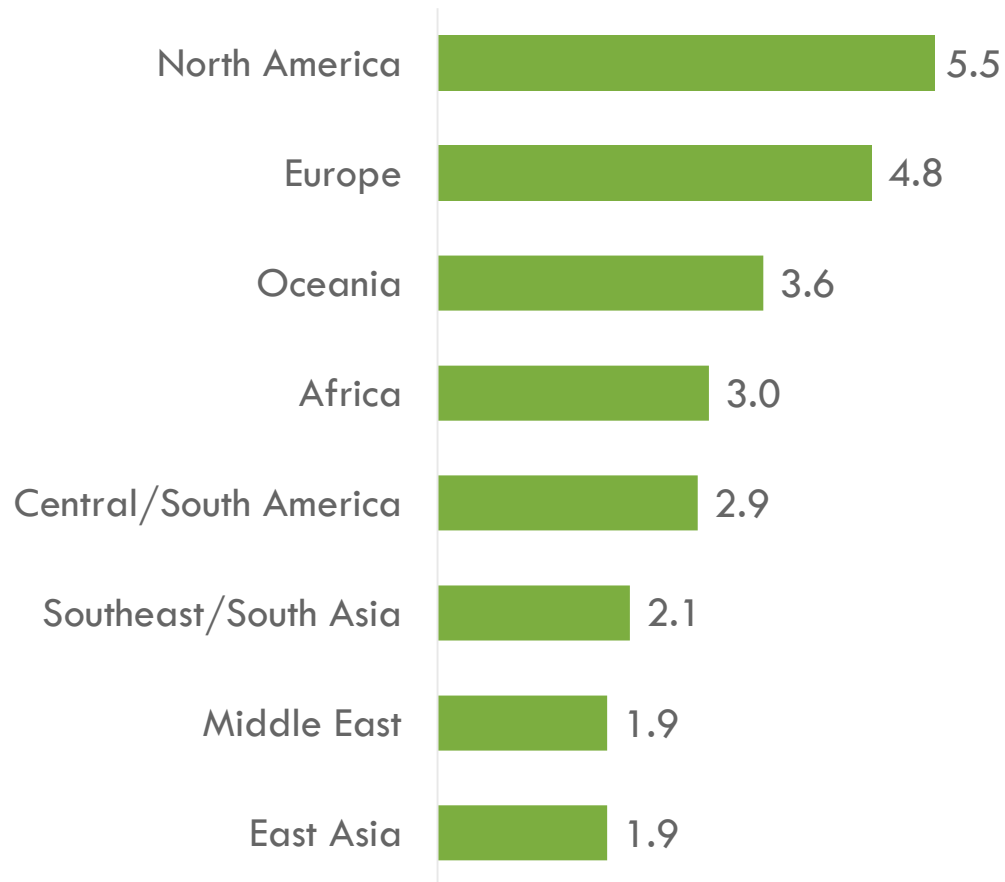
[†]Cross-region research teams (e.g., a mix of European and African researchers teamed up on a project) are coded multi-region/global



EXPERTS BELIEVE RESEARCH IS MUCH MORE ROBUST IN NORTH AMERICA & EUROPE, BUT CAVEAT ENGLISH LANGUAGE SKEW

How robust is OER research in each of the following areas?

(Oct 2018 interviews, N=5; 1=lowest, 7=highest)



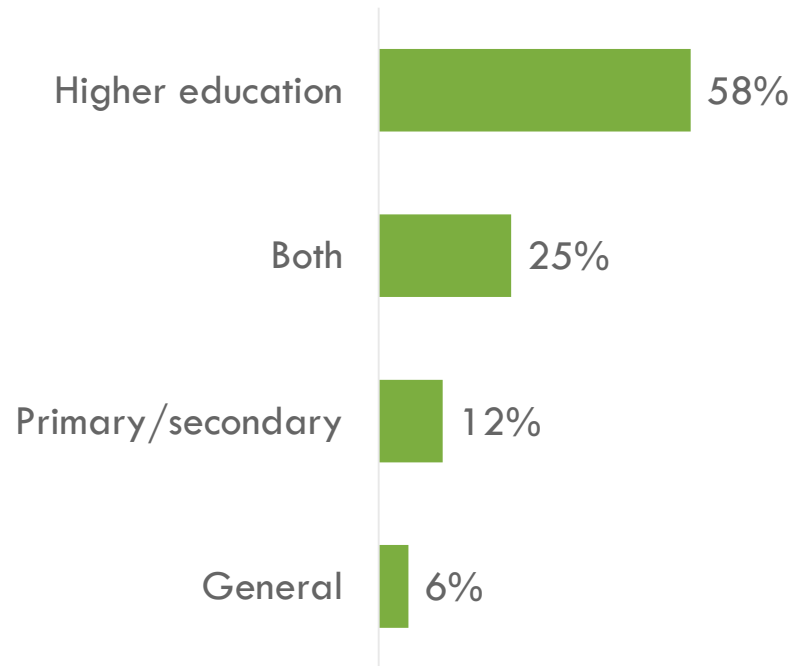
Experts see research priorities differ by region:

- **North America:** Costs, perceptions, open textbooks, student outcomes
- **Europe:** Open pedagogy, open access in higher ed, digital tech, policy framing
- **Oceania:** Open pedagogy, open access
- **Africa:** Teacher education
- **Latin America:** Open access
- **Asia:** Reusable learning objects, cost-benefit for universities producing materials, access, tech innovations for ed delivery
- **Middle East:** Access in areas affected by conflict; other topics less known to these interviewees



THE MAJORITY OF ARTICLES ARE ABOUT HIGHER EDUCATION

% of all studies about education level*
(N=126)



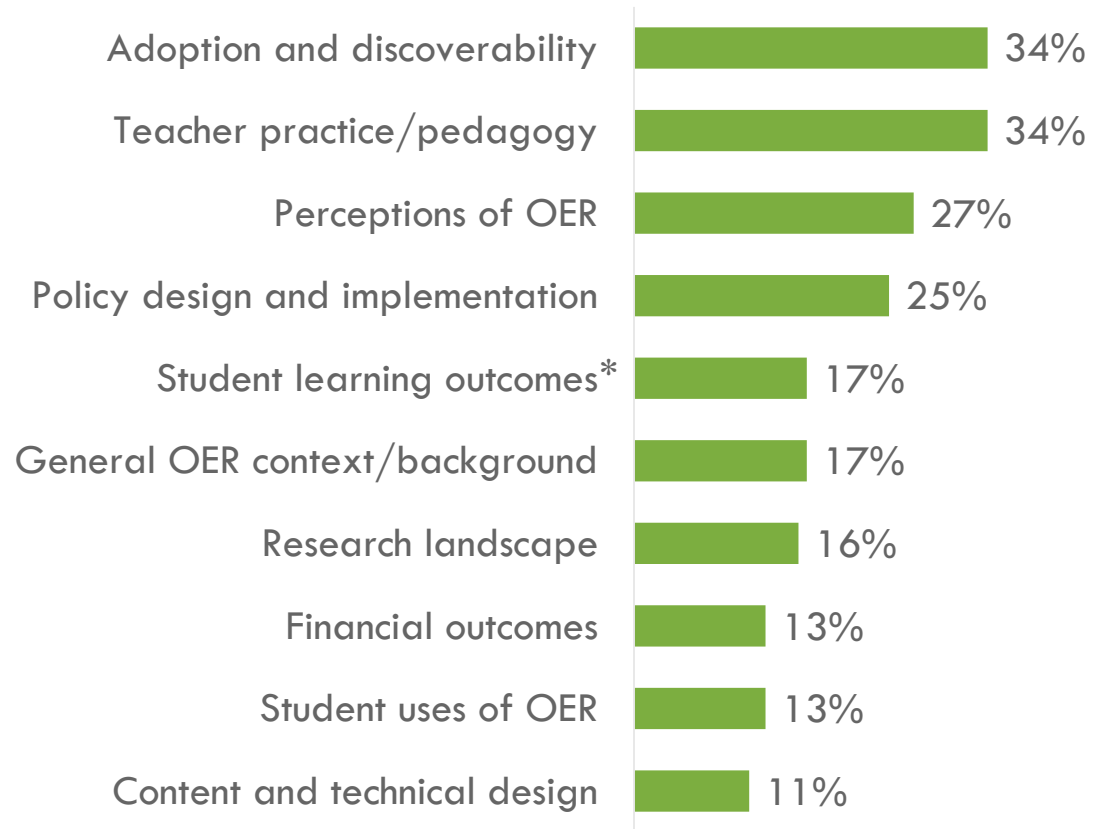
- Half of multi-region/global studies are about both primary/secondary & higher ed; Europe also has more (38%) addressing both
- C./S. America (50%), S./S.E. Asia (23%), and Africa (16%) include more primary/secondary studies
- Note that the sample of studies included means some regions' patterns are shaped by small N-sizes

*“Both” indicates studies that specifically reference both higher education and primary/secondary education.
“General” indicates studies that do not refer to any particular educational context (e.g., theory).

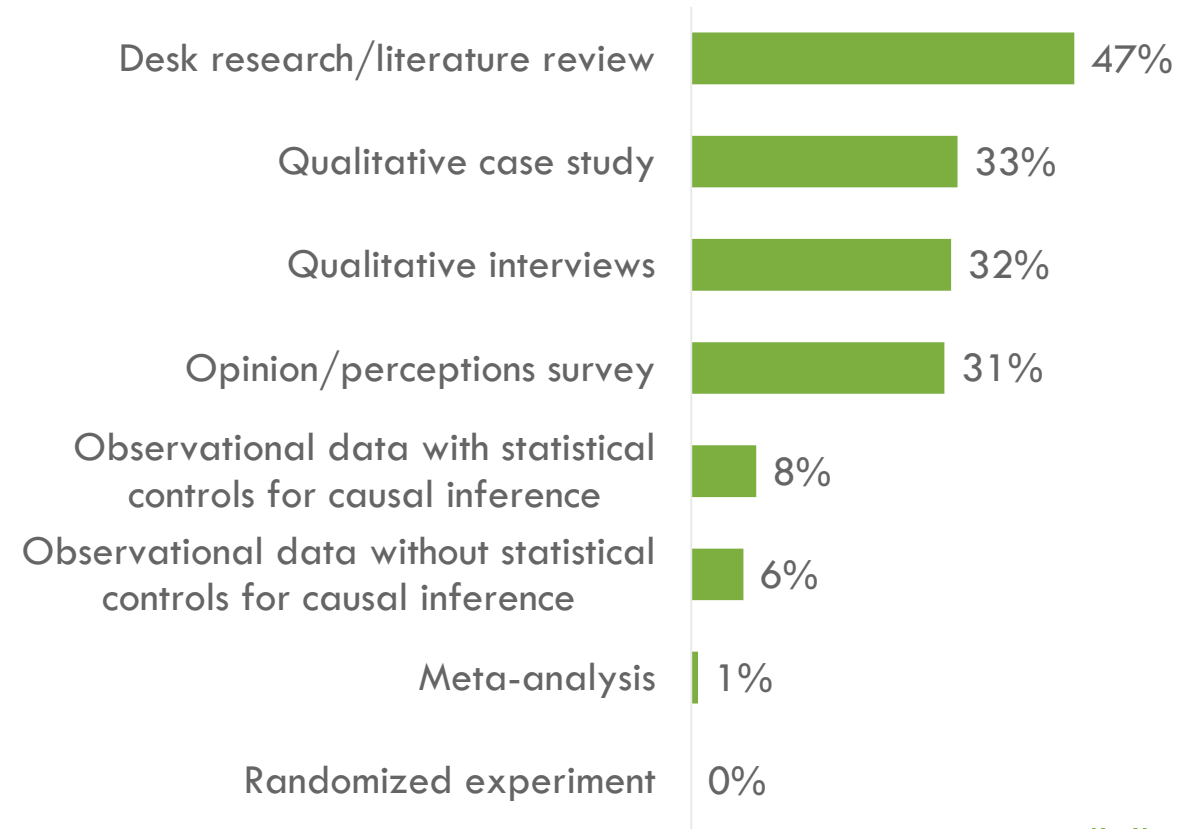


MOST RESEARCH EXPLORES MULTIPLE TOPICS (~70%) AND USES MIXED METHODOLOGIES (~50%)

% studies that focus on area
(N=126)



% studies that use methodology
(N=126)



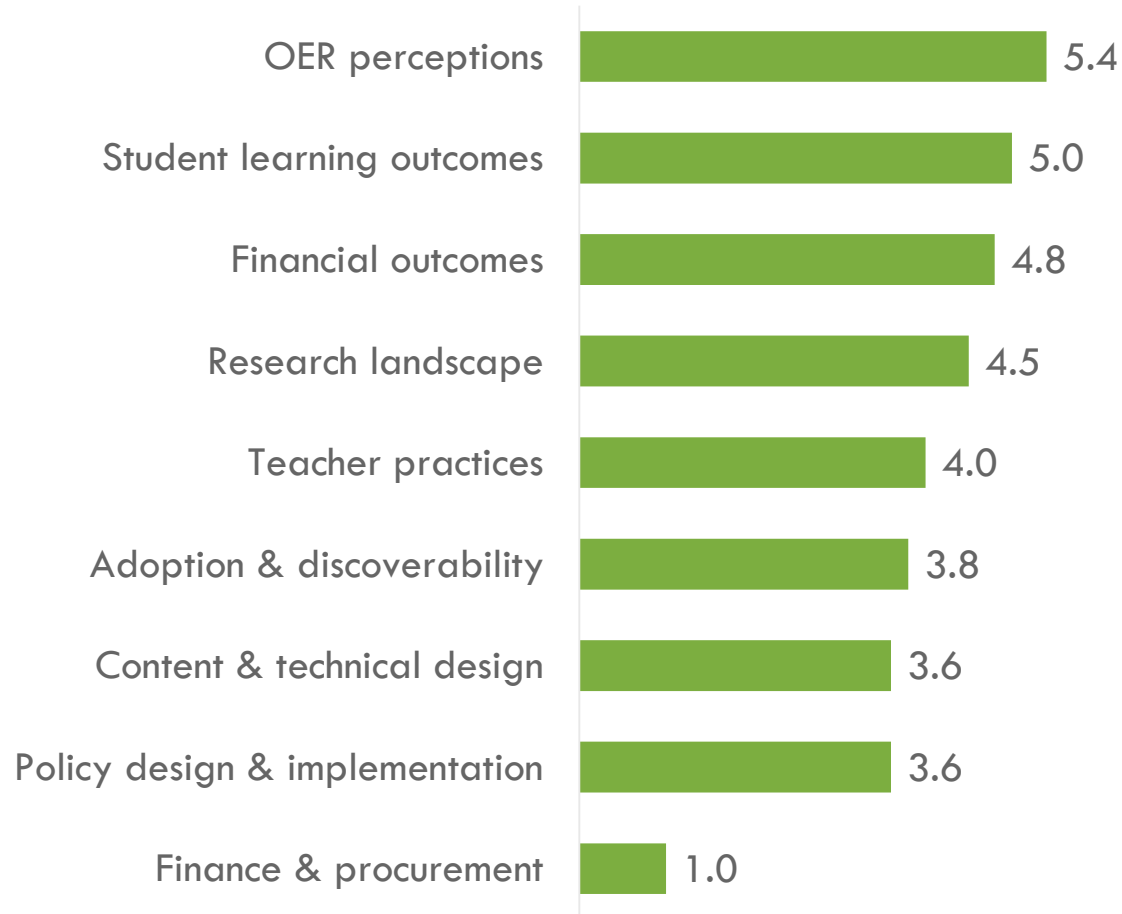
*Includes a variety of measures, such as student exam scores, class grades, course withdrawal rates, attitudes towards learning, and qualitative discussions



THOUGH EXPERTS SAY RESEARCH IS MORE ROBUST ON PERCEPTIONS & COURSE-LEVEL STUDENT OUTCOMES

How robust is OER research on each of the following topics?

(Oct 2018 interviews, N=5; 1=lowest, 7=highest)



- Research skews very heavily to higher education
- OER research experts largely believe that openly licensed textbooks lead to as good or better student learning outcomes than traditional textbooks
- Policy advocates want more research on adoption and implementation (e.g., financing, overcoming administrative challenges, educator best practices)
- Experts uniformly caution that research in languages other than English is a blind spot for them

EXPERTS HAVE DIVERGING VIEWS ON ESTABLISHED EFFECTS...

Strengths



There's been a ton of research done on particular student learning outcomes – **we know that students are doing as good or better** than [traditional books] using [OER]. We can put this one to bed, it's robust.

-Open textbooks-focused champion

We have enough good points, and not enough bad outliers, so **it's good enough** for me. In policy work, people are... not engaging closely on research details. They also want to know OER is 'good enough.'

-OER policy advocate

Areas for development



I've seen hardly any research that is scientifically rigorous. The **vast majority of research is anecdotal** in nature. And a lot of it is so small scale that it becomes **irrelevant for generalization** of findings.

-Open pedagogy-focused researcher

There is **lots of discussion in the field about what is open pedagogy**... Depending on what study you read, open pedagogy can be just about any type of good pedagogy whether related to OER or not. It's **hard to research something if you don't know what it is**. Because of that, there is almost no research done on open pedagogy.

-OER researcher and advocate



...BUT SEE OPPORTUNITY TO CAPITALIZE ON STRONGER METHODOLOGIES AND RISING AREAS OF INTEREST



- There is limited generalizability to institutional scale and beyond because research tends to be survey-based, and often does not clearly define OER or comparison materials
- But there has been a positive shift in research rigor in the last few years, especially with research related to open textbooks and a move to examine pedagogy more deeply
- OER intersects with other fields (MOOCs, digital pedagogy, open access, inclusive design, etc.), so researchers should examine indicators from other areas and consider shared research questions
- Research from the global south has been historically less developed and merits effort to raise its profile in the global north, but should take care to preserve focus on local questions

DIFFERENT USERS CONSIDER DIFFERENT RESEARCH INFLUENTIAL



Thought leaders and field conveners

“I’m a fan of research that takes a “test and learn approach” where you look at what has happened in certain places, and say ‘if we were to do this in another place, then we would expect to get this result,’ and see if it turns out to be true. It **sets out what we should reasonably expect and look at next to try to move the field forward.**”



Program implementers

“People need info on how to work with OER. Case studies, yes, are very good. But **what we really need are just recommendations.** Nobody has much time when actually trying to do something. We’re not a university; we’re here to move forward and get things done.”




Policy advocates

“Nobody ever asks me, ‘prove to me this improves learning.’ People ask me questions like, **‘Who else is doing this? How did they pay for that? How did they deal with distribution?’** So for me, that’s the data that would be useful. It’s less research in the sense of experimental research, and more research in the sense of observational data gathering.”



A SELECTION OF ARTICLES FROM EACH REGION SERVE AS A GOOD STARTING POINT TO BEGIN TO DIGEST THE RESEARCH LANDSCAPE



N. Am: Jhangiani et al, As good or better than commercial textbooks: Students' perceptions & outcomes from using open digital & open print textbooks, 2018

C./S. Am: Toledo et al, Public expenditure in education in L. Am: Rec.s to serve the purposes of the Paris OER Declaration, 2014

Eur: dos Santos et al, Policy Approaches to Open Education, 2017

Mid East: Bali & Caines, A call for promoting ownership, equity, & agency in faculty development via connected learning, 2018

E. Asia: Zagdragchaa & Trotter, Cultural–historical factors influencing OER adoption in Mongolia's higher education sector, 2017 (ed. Hodgkinson-Williamson & Arinto)

S/SE Asia: Mishra, Promoting Use and Contribution of Open Educational Resources, 2017

Africa: Pete et al, Differentiation in Access to, & the Use & Sharing of OER among Students & Lecturers at Kenyan Universities, 2017

Oceania: Bossu & Stagg, The potential role of Open Educational Practice policy in transforming Australian higher education, 2018

Multi-region/global: Hodgkinson-Williams & Arinto, Adoption and Impact of OER in the Global South, 2017
Cronin & Maclaren, Conceptualising OEP: A review of theoretical and empirical literature in Open Educational Practices, 2018



EXPERTS SUGGEST NEAR-TERM PRIORITY RESEARCH AREAS, AND NOTE MAJOR GAPS IN K-12 & NON-NORTH AMERICAN CONTEXTS

Teaching and learning	Policy and practice	Implementation
<ul style="list-style-type: none">• Can more rigorous research (controls, larger samples) validate OER impacts on learning outcomes?• How does OER affect teaching practices and enable open pedagogy (or not)? What constitutes open educational practices? How can OER connect with digital pedagogy?• How can OER support innovative learning design for underserved groups (e.g., indigenous, high poverty, transgender) and link diversity, equity, and inclusion with deeper learning?	<ul style="list-style-type: none">• What are the broader linked policies that enable open educational practices, in conjunction with direct OER policies?• How do governments, institutions, and programs handle procurement, administrative, and financing challenges when adopting OER?• What are adoption rates for OER, and what is the potential future reach?	<ul style="list-style-type: none">• What have been the impacts of past OER projects (e.g., TESSA, The Virtual University for Small States of the Commonwealth), and have they been sustained? What are the challenges? Do champions remain?• How can OER research support a test-and-learn approach that builds on the best current knowledge to develop new approaches, test hypotheses on those approaches, and improve based on findings?• How can OER grapple with implementation challenges like student privacy and use of technology? What does student engagement look like with OER?



NEXT STEPS FOR THE FIELD



- **Develop and pursue shared research priorities**, such as open pedagogy, innovation for underserved learners, and student engagement
- **Build on the research database** by adding pieces you believe are valuable to highlight for the field
- **Connect with researchers in adjacent fields** (e.g., MOOCs, digital learning) to share methodologies and identify potential data and research synergies

To view and contribute to the research database, visit:

https://docs.google.com/spreadsheets/d/1FDOb_W8KzvQ1Z4IGZcLYquJsWBYg6ZgYEjpFbxBShWI/edit?usp=sharing



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CURRENT AND POTENTIAL NEW FUNDERS MUST BE CONVENED IF THE FIELD IS TO HAVE DIVERSE SUPPORT



- The OER World Map's funder list is sparse
- Early analysis suggests Hewlett is the only consistent funder of field development
- Funders may support OER through funding for other priorities
- Recruiting regional funders may encourage greater focus on scaling usage

INTERVIEWEES SURFACED A SCATTERING OF FUNDERS THEY BELIEVE ARE INTERESTED IN OER...

Philanthropy



Brazil: Standards-aligned content for teachers



Global: Open science

LEVERHULME
TRUST

Global: Open world learning



Korea: Innovative hardware for education delivery



Hong Kong: OER programs at Open University Hong Kong

Government/IGO/ institutional



Global: OER policy, programs, and collaboration



European Union

Europe: OER as related to varied educational priorities



Global: OER research

Individual governments
(e.g., Mongolia, Canada)

Open universities self-funding
(e.g., Philippines, Korea)

“To be honest, I think **OER is underfunded**. We haven’t come across anyone... aside from the usual suspects... doing great work here.”

-Former OER funder



... BUT OER MUST REACH FUNDERS WHO CURRENTLY DO NOT SEE THEMSELVES AS “OER FUNDERS” WHERE THEY ARE

“

When I apply for funding, I often have to come at it sideways. **There aren't often calls that say “OER funding,”** but if you look at it a certain way, an open approach can be a solution to the problem (e.g., public engagement, health, citizenship, etc.). There is **big money around for other things of which openness might be a strand.**

-OER researcher and advocate

“

By and large, individuals drive [OER] initiatives at institutional levels and even beyond. Once champions go away, or when new technology comes in, the interest dies. **You need constant refreshing of interest and excitement.** There are external drivers, like Hewlett for example, who say ‘this is a great initiative in the interest of humanity, keep tackling it’; but **you don't get that kind of interest [in general].**

-Higher education OER advocate



FUNDERS COULD BE ENGAGED ON A WIDE RANGE OF TOPICS

Open access and inclusion

“OER is a base for inclusion. MOOCs have a very different profile of users. We have a much more inclusive demographic of users around OER. That sometimes gets missed – if you genuinely drop all the barriers, you can very quickly get away from serving only the more privileged base.” –*OER advocate in Europe*

Novel technology

“There’s a lot of adoption because people are really into EdTech.”
–*Global policy advocate*

“My sense is the European Commission is moving on and viewing open education as the last couple years’ thing, and is looking more at blockchain for education. I think education innovation will be their focus. A case can be made that OER fits into that, but it won’t be called OER.” –*Advocate & researcher in Europe*

High-quality content

“We won’t fund OER by itself. It’s a strategy to help with the standards – good quality materials aligned with standards.” –*Funder in Latin America*

Access to content in local languages

“We haven’t really heard about OER, and I don’t think others in Central America really think about OER beyond free access. The core of the problem is language. Most resources are in English. That leaves 98% of the population outside the picture.”
–*Funder in Latin America*

MOOCs

“Higher ed institutions have been attracted to using MOOCs not necessarily for open purposes, but more for marketing to people to get fees for credit. Wouldn’t it be interesting if universities with MOOC platforms also consider free licensing of the content in MOOCs?” –*OER leader in Asia*



NEXT STEPS FOR THE FIELD



- **Bolster government funding** by supporting adoption of the UNESCO Recommendation on OER in Nov. 2019 and helping governments identify strong OER investment opportunities to fulfill the UNESCO commitment
- **Broaden appeals for funding** to include links to related goals with substantial backing, such as open access in higher education and high-quality content in primary/secondary

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A STRONG FIELD CONTAINS FIVE KEY ELEMENTS

Characteristics of a strong field	Components
Shared identity	Community alignment around a common purpose and values
Standards of practice	Codification of standards of practice Exemplary models and resources (e.g., how-to guides) Professional development for implementers
Knowledge base	Researchers to study and advance practice Credible evidence that practice achieves desired outcomes Vehicles to collect, analyze, and disseminate knowledge
Leadership and grassroots support	Influential leaders and exemplars across the field Broad support and collaboration from major constituencies
Funding and supporting policy	Policy environment that encourages model practices Funding streams from diverse sources

Adapted from The Bridgespan Group, *The Strong Field Framework*



EXPERTS SAY THE FIELD HAS STRONG LEADERS, BUT NEEDS MORE FUNDERS AND IMPLEMENTATION SUPPORT

Please rate the strength of the OER field on the following characteristics

(Oct 2018 interviews, N=8; 1=lowest, 7=highest)



- OER has strong champions around the world who have rallied core support
- However, the lack of “OER funders” and awareness in the broader education community hinders potential to scale
- There is a disconnect between academics and practitioners; practitioners say they believe there is academic evidence, but it is hard to find and digest and they instead thirst for simplified implementation guidance

AS IT MATURES, THE FIELD'S NEEDS MAY DEVIATE FROM THE FRAMEWORK

“

“I don't think shared values is a goal. It is counterproductive to try to frame OER as something that is a shared purpose or value. Right now, there should be a shared purpose/value in the OER field because we're a relatively small field. And so far we've been successful in this small community of caring about open, tech, commons, and sharing.

But if we say we have 3% market share right now, which is probably wildly ambitious as an estimate, and our goal is to get to 50%, it is almost impossible to get from 3% to 50% by convincing 47% of people to care about what we care about. It will actually be convincing people that OER is a useful or neutral tool for what they care about.”

-Global OER advocate



THE FIELD SHOULD PRIORITIZE OVERCOMING KEY BOTTLENECKS & SEIZING TIMELY OPPORTUNITIES

Characteristic	Priority for new efforts	Current status	Components
Funding & supporting policy	●	▲	Opportunity: Policy environment is on the verge of a major breakthrough with the UNESCO recommendation Bottleneck: Funding streams need diversification
Standards of practice	●	▲	Bottleneck: Standards of practice and professional development are needed to help scale strong practice
Knowledge base	■	■	Opportunity: Researchers are growing in number and diversity, and can build further credible evidence around areas like pedagogy and institutional impacts
Leadership & grassroots support	▲	●	A variety of work continues to develop and support leaders and exemplars; broad support and collaboration will benefit from investment in the above factors that underpin scale
Shared identity	▲	■	Open discussions of values are needed, but alignment should not be a goal in and of itself as the field grows and diversifies

●=higher/stronger; ■=medium; ▲=lower/weaker



THE OPEN EDUCATION LEADERSHIP SUMMIT
GENERATED A WEALTH OF DATA ON OPEN
INITIATIVES AROUND THE WORLD

[illegible]

- 176 government, institutional, and field leaders from 45 countries participated
- Included more than just OER, considering a broader definition of “open education” (e.g., open science, open data, open access)
- Attendees created personal roadmaps describing their open ed initiatives; 43 shared back their roadmaps for post-Summit analysis
- Roadmaps reflect leaders’ self-selected priorities, not necessarily their comprehensive work and interests, so roadmaps likely underestimate the degree of interest across areas of open education

The Summit was convened on Dec. 3-4, 2018 in Paris by the International Council for Open and Distance Education, Open Education Consortium, the French Ministry of Higher Education, Research and Innovation, and the French Ministry of National Education and Youth



THOSE INITIATIVES ARTICULATE A VARIETY OF INTERCONNECTED BENEFITS FOR OPEN EDUCATION

Percent of roadmaps listing benefits and values for open education

(Open Ed. Leadership Summit roadmaps, N=43)

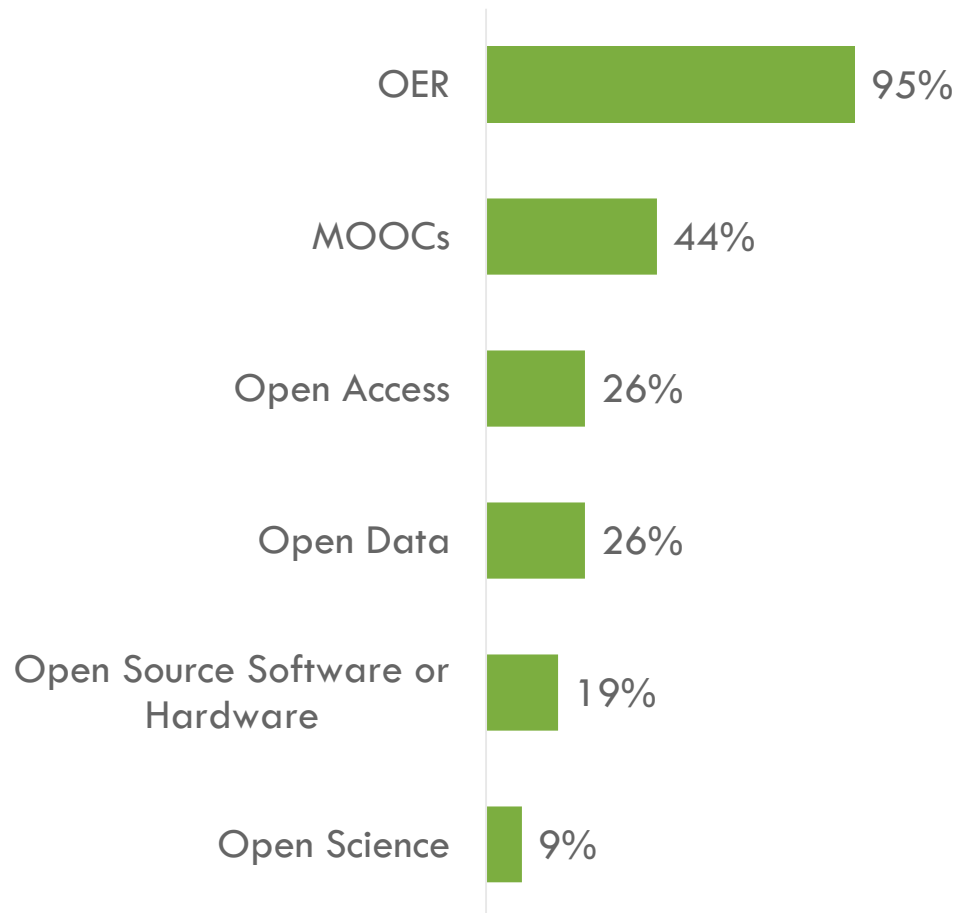


- Two-thirds of leaders named access or inclusion as a value of open education, though “access” differs by context (e.g., open access to knowledge, ability to enroll in postsecondary, etc.)
- Cost savings are valued internationally: 60% of leaders who named cost are outside the US & 35% outside North America (Europe, Africa, East Asia, Oceania)
- Collaboration and fostering community within and across regions was a major theme, as described on a subsequent slide



MOST OPEN EDUCATION LEADERS SEE THEIR WORK AS LINKING MULTIPLE FACETS OF OPENNESS

Percent of roadmaps listing assets by type
(Open Ed. Leadership Summit roadmaps, N=43)



- Two-thirds of roadmaps listed more than one type of asset related to their initiatives (and may have even more, since roadmaps were not intended to be comprehensive)
- MOOC creation and use are priorities for two-thirds of higher education institutions
- Open access and open data are also common areas of interest, particularly in higher education



THE SUMMIT SURFACED OPPORTUNITIES AND DESIRE FOR COLLABORATION

- Over 90% of roadmaps named offers to and needs from others, spanning everything from content to expertise navigating institutional change to new technologies to grassroots support
- Hunger for collaboration, including cross-regional partnership, was evident in both the stated values of open education and the 13 collaborative roadmaps Summit participants produced (see next slide)
- The field's widening definition of open education encourages novel partnerships that knit together the different substance, tools, and capacity often-siloed parts of the field have to offer



COLLABORATIVE ROADMAPS GENERATED MOMENTUM FOR CONTINUED PARTNERSHIPS ON DIVERSE TOPICS

- MOOCs for peace and conflict resolution
- Moodle.net
- Multilingual OER and OER for language acquisition
- Nursing OER
- Open Education implementation and culture change
- Open Education policy and advocacy
- OER coaching
- Open assessments
- Open Education practices and pedagogy
- Open recognition & badging
- Research on Open Education
- Sustainable Development Goals
- Use of OER in rural locations and the Global South



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NEXT STEPS FOR THE FIELD



- Continue discussing what open education and pedagogy mean at OER gatherings in the US and globally, and with teaching and learning experts
- Use and contribute to the research compilation when you need or find valuable research pieces related to OER and open education
- Tell your peers about open education-related funding opportunities that may be outside their traditional OER scope but have the potential to expand partnerships and sustainability

QUESTIONS?

For more information, visit

<https://hewlett.org/strategy/open-educational-resources/>



APPENDIX

Summaries of select representative research articles

ADOPTION AND IMPACT OF OER IN THE GLOBAL SOUTH (HODGKINSON-WILLIAMS & ARINTO 2017; CC-BY)

Study geography	South America, Sub-Saharan Africa, South and Southeast Asia
Study period	2013-2017
Researcher geography	Varies by study (19 countries)
Education level	Secondary and Tertiary education, teacher training
Focus area	Varies by study
Subjects	396 school teachers, 69 teacher educators, 701 university lecturers, and 4985 university students
Study type	Varies by study
Publication type	Book
Supporting institutions	IDRC, DFID, Open Society Foundations, U. Cape Town, Wawasan Open U.

Research questions: In what ways and under what circumstances can the adoption of OER and Open Educational Practices (OEP) address the increasing demand for accessible, relevant, high-quality, and affordable education in the Global South?

Research approach: Solicit research proposals from teams in the Global South, resulting in 18 sub-projects from 21 countries in Asia, Sub-Saharan Africa, and Latin America. These sub-projects included 103 researchers from 19 countries, supported by a Network Hub of 12 people at the University of Cape Town and Wawasan Open University. Study methods include “survey questionnaires, interviews, focus group discussions, document analysis, workshops, observations, logs, and desktop reviews.” 10 sub-projects yielded both quantitative and qualitative data, 6 only qualitative data, and 2 only quantitative data.

Book contents:

1. **Overview:** Introduction; “Factors influencing Open Educational Practices and OER in the Global South: Meta-synthesis of the ROER4D project”; “OER use in the Global South: A baseline survey of higher education instructors”
2. **S. America:** “Open Access and OER in Latin America: A survey of the policy landscape in Chile, Colombia and Uruguay”; “Co-creation of OER by teachers and teacher educators in Colombia”; “Effectiveness of OER use in first-year higher education students’ mathematical course performance: A case study” (Chile)
3. **Sub-Saharan Africa:** “Tracking the money for Open Educational Resources in South African basic education: What we don’t know”; “Teacher educators and OER in East Africa: Interrogating pedagogic change”; “Factors shaping lecturers’ adoption of OER at three South African universities”; “OER in and as MOOCs” (South Africa)
4. **S. and S.E. Asia:** “Cultural–historical factors influencing OER adoption in Mongolia’s higher education sector”; “Higher education faculty attitude, motivation and perception of quality and barriers towards OER in India”; “Impact of integrating OER in teacher education at the Open University of Sri Lanka”; “Teacher professional learning communities: A collaborative OER adoption approach in Karnataka, India”; “An early stage impact study of localised OER in Afghanistan”
5. **Summary:** OER and OEP in the Global South: Implications and recommendations for social inclusion



CONCEPTUALISING OEP: A REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE IN OPEN EDUCATIONAL PRACTICES (CRONIN & MACLAREN 2018; CC-BY)

Study geography	n/a (theoretical)
Study period	~2017-2018
Researcher geography	Ireland
Education level	n/a (applies to all levels)
Focus area	Open Educational Practices
Subjects	n/a (not a direct study of subjects)
Study type	Review of theoretical and empirical literature
Publication type	Peer-reviewed journal article
Supporting institutions	National University of Ireland, Galway

Research questions: How has the definition of “open educational practices” (OEP) evolved, and how do these roots appear in current empirical studies of OEP?

Research approach: Review “theoretical literature” that proposes unique definitions of OEP and “empirical literature” that analyses data on the development and use of OEP in particular contexts.

Key findings:

- Research often cites 4 bodies of work about OEP, which all include both OER & collaborative pedagogical practices:
 - Open eLearning Content Observatory Services (OLCOS) project, 2006-2007: The core of OEP is social constructivist learning and teaching, including practices that actively engage students in the learning process
 - Open Education Quality (OPAL) initiative, 2010-2011: OEP focuses on OER but includes broader collaborative practice; increasing OEP includes increasing OER usage and moving learning architecture from closed to open
 - UKOER programme, 2009-2012: OEP is broadly defined including six practices (OER production, management, use, & reuse; open/public pedagogies; open learning; open scholarship; open sharing of teaching ideas; use of open technologies). OER and OEP do not necessarily occur together. OEP can be a vehicle to change the balance of power between learners and teachers.
 - Centre for Innovation in Learning and Teaching (CILT) research, UCT, 2009-present: Definitions of OEP must consider context. There are five degrees of openness: cultural, pedagogical, technical, legal, and financial.
- Many empirical studies of OEP remain rooted in the OER-focused definitions of OEP, studying practices and policies that support OER. Later studies shift to considering OEP independent from OER and have found that OEP can precede OER use. Other studies explore how OEP affects power relations and inequality. The more expansive definitions of OEP better acknowledge the complex practices of teaching and learning in real contexts.
- Many other education concepts (e.g., open scholarship, networked participatory scholarship, open pedagogy, open teaching) generally align with expansive definitions of OEP. However, “OER-enabled pedagogy” is a different concept that is more narrowly focused on OER.



AS GOOD OR BETTER THAN COMMERCIAL TEXTBOOKS: STUDENTS' PERCEPTIONS AND OUTCOMES FROM USING OPEN DIGITAL AND OPEN PRINT TEXTBOOKS (JHANGIANI, DASTUR, LE GRAND, & PENNER 2018; OPEN ACCESS)

Study geography	Canada
Study period	Spring and Summer 2015
Researcher geography	Canada
Education level	Higher education
Focus area	Student perceptions, student learning outcomes
Subjects	Intro Psychology students at a mid-sized, public, Canadian undergraduate university
Study type	Quasi-experiment, student survey
Publication type	Peer-reviewed journal article
Supporting institutions	Kwantlen Polytechnic University

Research questions: 1. Do students using an open textbook perform differently on course exams from students using a commercial psychology textbook? 2. Do students using an open textbook in page-fidelity digital format perform differently on course exams from students using the same open textbook in print format? 3. Do students' study habits vary as a function of textbook openness and format? 4. Do students' perception of quality vary as a function of textbook openness and format? 5. Do students' perceptions of a fair price vary as a function of textbook openness and format? 6. Do students' textbook format preferences vary as a function of textbook openness and format?

Research approach: In Spring 2015, assign two sections to adopt the digital format of an open textbook and two sections the print format of an open textbook; Le Grand and Dastur each taught one digital and one print section. In Summer 2015, assign three sections to adopt the incumbent commercial textbook; Le Grand taught one section and Penner the other two. Students (N=178) do not know course materials before registering for sections, producing a quasi-experiment. Students take a Psychology Pre-Test, three course exams, and a questionnaire. Conduct statistical analyses on student outcome data and survey data.

Key findings:

- Students assigned an open textbook perform the same as or better than those assigned a commercial textbook on course exams. Overall, those assigned the commercial textbook scored significantly lower than those assigned the digital format of the open textbook on the third course exam; there were no differences for the first two exams.
- Students assigned a commercial textbook spent more time studying for the course and studying lecture materials more. However, students assigned the commercial textbook were taking fewer concurrent courses. There was no difference in time spent studying the textbook or weekly readings completed.
- Students rate the open textbooks as good as or better than the commercial textbook on all dimensions. For instance, students prefer the print format open textbook to the commercial book on writing clarity, writing engagement, effective everyday life examples, effective research examples, and helpful study aids. Both formats of the open textbook were rated higher on the number of study aids. Students prefer print over digital format.



PUBLIC EXPENDITURE IN EDUCATION IN LATIN AMERICA. RECOMMENDATIONS TO SERVE THE PURPOSES OF THE PARIS OPEN EDUCATIONAL RESOURCES DECLARATION (TOLEDO HERNÁNDEZ, BOTERO, & GUZMÁN 2014; CC-BY)

Study geography	Argentina, Chile, Colombia, Paraguay, Uruguay
Study period	April to October 2013
Researcher geography	Colombia
Education level	Primary and Secondary education
Focus area	Policy design and implementation
Subjects	Governments of Argentina, Chile, Colombia, Paraguay, and Uruguay
Study type	Literature review, interviews
Publication type	Peer-reviewed journal article
Supporting institutions	UNESCO, Karisma Foundation

Research questions: What do current public investments in the development and procurement of educational materials suggest about recommendations for a roadmap to better align public expenditure with the aims of the Paris Declaration?

Research approach: Conduct a literature review of studies on cost and quality in education. Analyze documentation of national education systems, focused on production and acquisition models for educational resources and programs on digital technology in education. Conduct interviews with the responsible national education authorities to fill gaps and validate data.

Key findings:

- In the five countries studied, governments are consumers of educational materials designed by publishers, rather than drivers of what materials should look like. Public spending shifts based on administrations' preferences, rather than consistent policies. While governments are investing in digital tools, most are interested in free access over open licensing. Reducing the digital divide is the top goal for Information and Communication Technology (ICT) efforts, though countries ultimately still rely on paper textbooks.
- Government procurement models need to change to support government commitments to OER. Governments should modify textbook purchasing conditions to incorporate use of open licenses to facilitate search, reuse, and sharing.
- ICT programs in education should be more closely linked to the acquisition of digital educational materials that meet international OER standards. This can help improve the diversity, relevance, and quality of materials.
- To improve accountability, governments should develop and publicize indicators that help measure the impact of OER policies and the use of public funds in the production and use of OER. Additionally, economic analysis of public investments should clarify national and subnational programs, and account for the real price of producing resources based on the publishing market. This can help make the case that governments will benefit from producing OER.
- The education community requires training on OER and its advantages. Governments should focus on the underlying characteristics that define OER and tailor their work to achieve those characteristics, especially in the use of ICTs.



POLICY APPROACHES TO OPEN EDUCATION: CASE STUDIES FROM 28 EU MEMBER STATES (OPENEDU POLICIES) (DOS SANTOS ET AL, JOINT RESEARCH CENTRE 2017; © EU, FREE)

Study geography	European Union (28 Member States)
Study period	2017
Researcher geography	European Union
Education level	All
Focus area	Policy design and implementation
Subjects	EU Member States
Study type	Policy research, case studies, interviews
Publication type	JRC Technical Report
Supporting institutions	Joint Research Centre (European Commission)

Research questions: What is the status of open education policies in each of the 28 European Union Member States? How can the European Commission equip Member States with a knowledge base on open education, including ideas, frameworks and practices, and opportunities for partnerships and knowledge-sharing?

Research approach: Research national-level policies on open education. Interview policymakers and experts on what national and EU policies are needed, and what potential barriers and enablers are. Synthesize policy suggestions at the EU and Member State level.

Key findings:

- Member States are pursuing four types of policies related to open education: 1) Policies to promote open educational resources (OER) and open educational practices (OEP); 2) Policies on ICT (Information and Communication Technologies) for learning with an open education component; 3) Comprehensive strategic educational policies with an open education element; and 4) National Open Government Plans with an open education piece. Most of these policies target multiple components of the JRC's OpenEdu Framework (Access, Content, Pedagogy, Recognition, Collaboration and Research, Strategy, Technology, Quality, Leadership), particularly Collaboration. In most countries, policies are too new to analyze for impact.
- Top barriers for open education include: low ICT-readiness, low policy priority for open education, fragmented initiatives, lack of institutional support, resistance to cultural change, lack of awareness about open education, low open education capacity among teachers, and absence of a national open licenses recognition scheme.
- Key enablers of open include: policy priority assigned to open education at the Member State and EU levels; awareness of open education among leaders and educators; capacity-building on open education for educators and other stakeholders; empowerment of educators; and online platforms and advocacy communities.
- For the EU and Member States to advance open education more consistently, the EU must increase awareness of open education and increase the frequency of studies and peer-learning activities among Member States. For example, an "open education census" to collect and assess projects across countries would be valuable.



A CALL FOR PROMOTING OWNERSHIP, EQUITY, & AGENCY IN FACULTY DEVELOPMENT VIA CONNECTED LEARNING (BALI & CAINES 2018; CC-BY)

Study geography	Global
Study period	2018
Researcher geography	Egypt, United States
Education level	Higher education
Focus area	Teacher practice/pedagogy
Subjects	Higher education faculty
Study type	Literature review, case studies, autoethnography
Publication type	Peer-reviewed journal article
Supporting institutions	American University in Cairo, St. Norbert College

Research questions: What educational development opportunities for educators can encourage heutagogy (self-determined learning) with outcomes that focus on ownership and agency and lead to transformative learning for students? How do we offer educational development to people with different teaching philosophies, needs, and contexts?

Research approach: Summarize the literature on faculty development, transformative learning, heutagogy, connectivism and connected learning, and equity. Present case studies illustrating elements of these values.

Key findings:

- Consider lessons from heutagogy, connectivism, and transformative learning with an equity orientation to facilitate learning experiences where educators map their own individual learning pathways. Educators should look within and beyond their own institution for learning opportunities and mentorship, while still receiving support from local environments. This can produce more transformative, sustained, and equitable educational development experiences. Technology allows flexibility in time and space, enabling sustained affinity spaces across wider geographies than typical professional development opportunities. However, use of technology is not a philosophical value itself, and various models are needed to fit different educators' needs and preferences.

Example models include:

- #DigPINS: Institutional cohorts participate in a course that focuses on exploring multiple online contexts through online tools that help create a networked learning experience and an ongoing institutional community.
- Virtually Connecting: Use web-based video conferencing to allow conversations between conference speakers, participants, and those who cannot attend, allowing equitable networking and participation in conferences.
- Collaborative reading: The Twitter Journal Club is an open, unstructured reading group that encourages inclusive conversations. Marginal Syllabus chooses equity-focused texts for collaborative digital annotation.
- Connectivist MOOCs: Course instructors provide a framework, and learning is distributed across learners' social media with an emphasis on connection rather than just content.
- Untethered faculty development: Offer ongoing educational development support via asynchronously accessible online resources, synchronous video conference sessions, recorded sessions, and faculty dialogue.



DIFFERENTIATION IN ACCESS TO, AND THE USE AND SHARING OF (OPEN) EDUCATIONAL RESOURCES AMONG STUDENTS AND LECTURERS AT KENYAN UNIVERSITIES (PETE, MULDER, & OLIVEIRA NETO 2017; CC-BY)

Study geography	Kenya
Study period	~2014-2017 (survey dates unspecified; during ROER4D period)
Researcher geography	Kenya, Netherlands, Brazil
Education level	Higher education
Focus area	Perceptions of OER, adoption/discoverability, student and teacher uses of OER
Subjects	Students and faculty at four Kenyan universities
Study type	Student and faculty survey
Publication type	Peer-reviewed journal article
Supporting institutions	IDRC, ROER4D

Research questions: What is the state of connectivity and digital proficiency among lecturers and students? What kind and level of use, re-use, creation, and sharing of educational resources (ER) is common? What is the level of awareness of licensing related to open educational resources (OER) among lecturers and students? How do lecturers and students perceive the value of openness in ERs, its implementation opportunities, and its institutional context?

Research approach: Survey students (N=798) and faculty (N=43) at four Kenyan universities that represent private/public and urban/rural contexts (Tangaza University College, Jomo Kenyatta University of Agriculture and Technology, Maseno University, Great Lakes University). After a pilot survey found that “OER” created unintentional inconsistencies due to varied understandings of the term, the survey was revised to discuss “Educational Resources (ER)”. Analyze quantitative descriptive data from the surveys.

Key findings:

- The government must invest more heavily in the implementation of the National ICT Policy because many lecturers do not yet have key ICT competencies, and digital proficiency differs significantly between urban and rural contexts. Poor internet accessibility at rural universities is a major challenge, particularly to access for marginalized and hard-to-reach populations.
- Overall awareness and appreciation of open licensing is low, though there are early signs of awareness and commitment which can be a basis for OER growth. Measures of “preparedness for openness” based on the beliefs and behavior of survey respondents suggest there is potential to boost appreciation of what OER and open licensing can offer, if lecturers become more aware of the importance of licenses and how they use teaching resources.
- Lecturers and students have strong positive intentions with respect to OER, and lecturers believe there is institutional support for OER. Stakeholders should embrace these beliefs as a basis to implement Kenya’s Vision 2030 to create new forms of open and online learning and to increase access.
- OER researchers should be explicit and cautious about the “perception eclipse”, in which inconsistent understanding of “OER” can obscure measurement of actual perceptions.



CULTURAL–HISTORICAL FACTORS INFLUENCING OER ADOPTION IN MONGOLIA’S HIGHER EDUCATION SECTOR

(ZAGDRAGCHAA & TROTTER 2018; CC-BY)

Study geography	Mongolia
Study period	2015
Researcher geography	Mongolia, South Africa
Education level	Higher education
Focus area	Perceptions of OER, teacher practice/pedagogy, adoption/discoverability
Subjects	Staff at four public and two private universities in Mongolia
Study type	Qualitative interviews, quantitative surveys
Publication type	Book chapter
Supporting institutions	ROER4D, IDRC

Research questions: What cultural–historical factors shape OER activities and potential for further OER adoption in Mongolia’s higher education sector? Does OER have the potential to move beyond a niche innovation advocated and funded by international donors to one that is broadly adopted, implemented, and disseminated by local educators?

Research approach: Conduct qualitative interviews with 14 participants from four Mongolian higher education institutions (NUM, Mongolian University of Science and Technics, Health Sciences University and Mongolian National University), two government organizations, and three NGOs about OER awareness, infrastructural accessibility, organizational culture, institutional policy, quality concerns, pedagogical practices, and OER value and utility. Based on interviews, field a quantitative survey of 42 instructors and administrators covering internet access, OER awareness, OER use, and creation and sharing of OER. Code interview findings and analyze survey data.

Key findings:

- Mongolia has no systematic OER initiatives in higher education to provide policy or practice strategies for implementation at scale. If donors shift focus or a new administration takes power, OER could lose priority. Given low OER awareness, policies can significantly accelerate OER adoption.
- OER awareness among educators and administrators is modest. More educators must engage with OER and create communities of practice to incorporate OER into mainstream academic culture. Donors should focus more on teams and departments, not individuals. Peer support programs like BCcampus could help build advocates and trainers. Additionally, donors could support the government to create a peer-reviewed OER repository like MERLOT.
- Mongolian educators are less worried about OER quality and more about OER relevance. Educators prize localized materials, suggesting a need for more Mongolian-created OER, and more OER in the Mongolian language.
- Mongolian educators are not yet convinced of the value of OER. Of those who used OER, 33% were positive, 42% were neutral, and 25% were negative. Educators also use materials regardless of their license, so the benefit of OER being free may not resonate. Making OER locally relevant is the path to ensure OER is seen as valuable.
- Most higher education practitioners have sufficient access to internet, computers, and electricity to engage with OER, though a small share struggle with access, given the diverse educational contexts in Mongolia.



PROMOTING USE AND CONTRIBUTION OF OPEN EDUCATIONAL RESOURCES (MISHRA 2017; CC-BY-SA)

Study geography	India
Study period	~2014-2015 (exact dates unspecified; during ROER4D period)
Researcher geography	India/Canada
Education level	Higher education
Focus area	Perceptions of OER, adoption/discoverability
Subjects	Teachers at four Indian universities, teachers in the WikiEducator-India network
Study type	Qualitative interviews and workshops, quantitative surveys
Publication type	Book
Supporting institutions	Commonwealth of Learning, IDRC, ROER4D

Research questions: 1. How are teachers' attitudes towards OER situated in the context of teaching and learning? 2. Is there any difference in attitude towards OER between teachers according to different demographic variables? 3. What are teachers' motivations for using OER and sharing their work as OER? 4. Is there any difference in motivations between groups of teachers? 5. What barriers to using OER do teachers perceive? 6. How do teachers perceive the quality of OER? 7. Are there relationships between teachers' attitudes, motivations, and perceptions of quality when it comes to them using and adapting OER?

Research approach: Propose a conceptual framework for teachers' use and contribution of OER. Use a third-generation Activity Theory framework to guide qualitative research. Develop a questionnaire, including an "attitude towards OER" (ATOER) scale. Survey teachers from four representative universities and WikiEducator-India (N=117 complete responses) and hold four-day workshops including interviews. Code interview data and conduct statistical analyses on the survey.

Key findings:

- Overall, teachers have positive attitudes towards OER, but they favor sharing their materials more than adapting materials developed by others. Their desire to share is motivated largely by altruism, but also by learning opportunities, monetary and time savings, collaboration, and professional recognition. Teachers say lack of understanding of licensing and copyright issues is the biggest barrier to use of OER, followed by time constraints.
- Quality—specifically, appropriateness of materials—is a priority. Teachers value source reputation and peer review. They believe open licenses are a quality indicator because they enable continuous improvement and localization.
- Analysis suggests attitudes towards OER are driven by a number of motivation factors (opportunities for partnership, affordances to learn, recognition, receiving feedback, knowledge of licensing and copyright, reaching the unreached in developing countries) and quality factors (openness of OER, possible time savings).
- Five recommendations can promote use and adaptation of OER at Indian higher education institutions: 1. Prioritize advocacy for and awareness of OER, focusing on teachers and senior administrators. 2. Develop and implement institutional OER policies. 3. Provide teachers with incentives to engage in OER work (awards, recognition that counts towards promotion). 4. Create quality assurance mechanisms for OER. 5. Provide teachers with continuous professional development through workshops and training sessions to enhance ICT and OER skills.



THE POTENTIAL ROLE OF OPEN EDUCATIONAL PRACTICE POLICY IN TRANSFORMING AUSTRALIAN HIGHER EDUCATION (BOSSU & STAGG 2018; CC-BY)

Study geography	Australia
Study period	2018
Researcher geography	Australia
Education level	Higher education
Focus area	Policy design/implementation
Subjects	Australian government and universities
Study type	Policy research
Publication type	Peer-reviewed journal article
Supporting institutions	University of Tasmania, University of Southern Queensland

Research questions: What is the role of educational policy in supporting OEP in Australia? How can stakeholders position OEP to bridge the disconnect between those who value education for public good versus for economic gains and private good, resulting in policy that reflects the diverse needs of Australia as a society that embraces access to education?

Research approach: Discuss the potential of OEP, the evolution of Australian educational policy goals, and prior OEP recommendations in Australia. Propose calls to action to fill gaps and seize opportunities through policy development.

Key findings:

- The Australian Government Office for Learning and Teaching has funded a handful of OEP reports and research projects, which all strongly recommended national-level OEP intervention, support, and policy development. However, the government has not yet met these recommendations, and Australia does not have a specific framework or regulation that supports adoption of OER or OEP in higher education.
- The Australian education system has shifted from valuing the common social good to valuing economic gains and the private good for individuals. This inherently challenges OEP, which is typically presented as a social good. Policies must bridge this gap by demonstrating how OEP helps meet both types of educational outcome goals (e.g., increase access to higher education for rural and remote students at a lower cost, which can reduce student debt).
- Policies could help increase OEP adoption by serving as a lever for action at the institutional and practitioner levels. However, policies should be only one tool among many because when misapplied, policy generates compliance rather than meaningful stakeholder buy-in that sustains progress.
- Policy development should aim to grow national awareness and provide options and directions so practitioners, national interest groups, discipline-specific bodies, and institutions have government validation. Policies should:
 - 1. Raise awareness of OEP and OER by engaging stakeholders in a national community of practice, reviewing national and international OEP policies, conducting and sharing research, and developing impact measures
 - 2. Build capacity to empower academic staff to embrace and participate in change, through programs that are hands-on, promote reflection, and leverage myriad institutional and online resources

