



OER Impact: Towards an Evidence Base

Dr. Robert Farrow, The Open University

#oerrhub / @oer_hub

OER Evidence Hub

Background

Rationale

Design

Implementation

Data Visualization

Future Iteration

Call for Evidence / Feedback



Background

About me

- Philosopher & Educational Technologist
- Based at the Institute of Educational Technology (IET) Open University UK
- <http://flavors.me/philosopher1978>

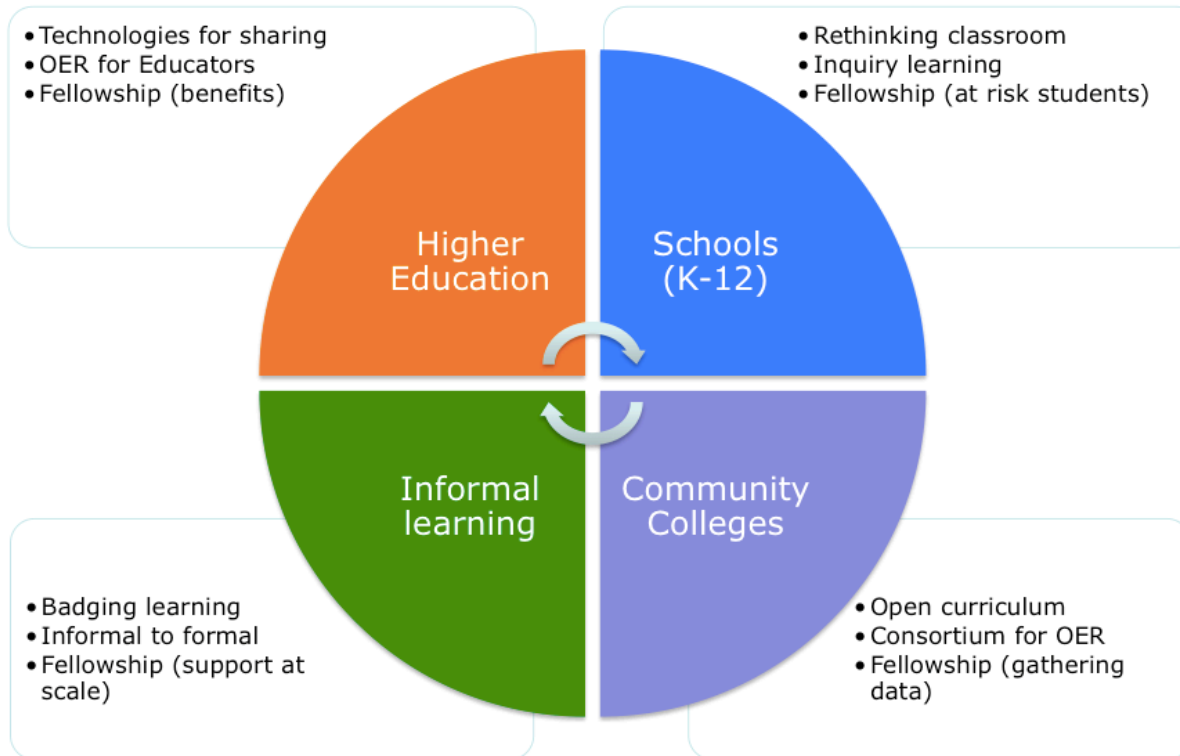
About The Open University

- Europe's largest distance learning university
- Access: foremost provider to mature, disabled and working students
- A world leader in technology-enhanced pedagogy
- Head of the FutureLearn MOOC consortium

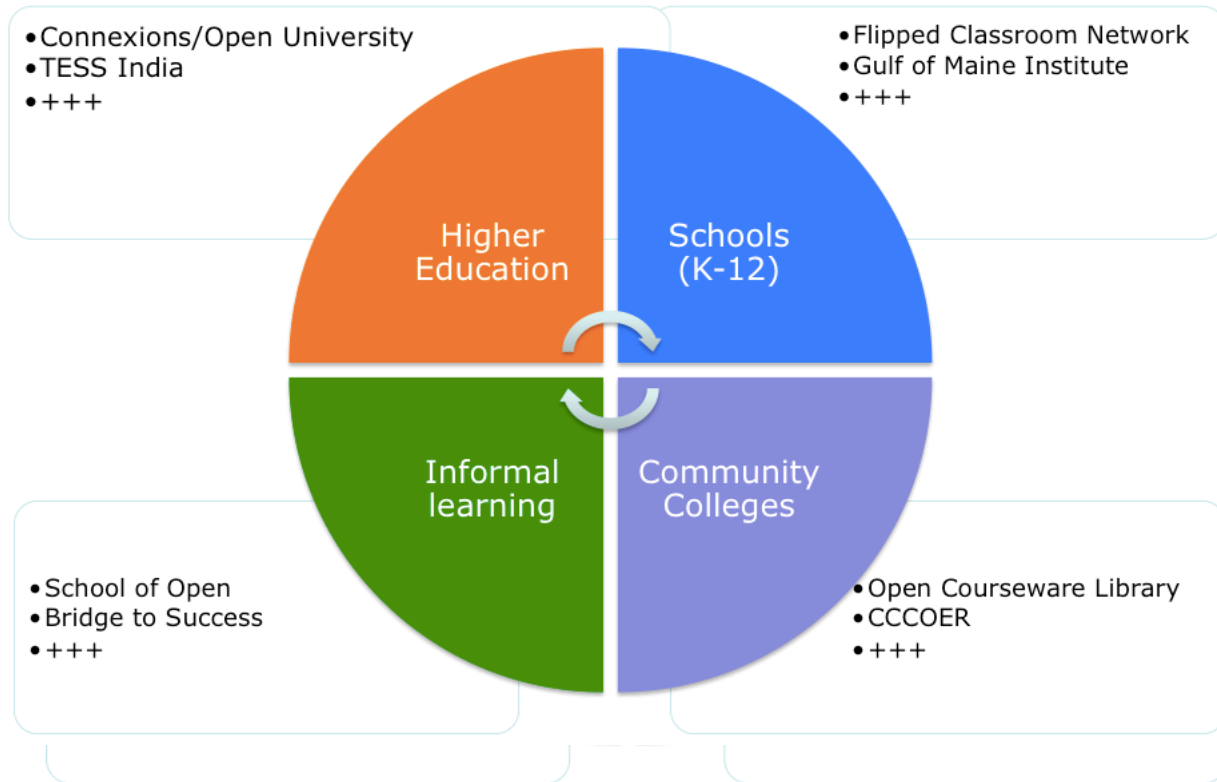
About the Project

- Funded by William & Flora Hewlett Foundation for two years
- Two professors lead four researchers among a team of ten
- Tasked with building the most comprehensive picture of OER impact
- Organised by a set of research hypotheses
- Working across different educational sectors
- Collaboration model
- Global reach but with a USA focus
- <http://oerresearchhub.org>

Collaboration Model



Collaboration Model





OPEN COURSE LIBRARY
download.remix.teach

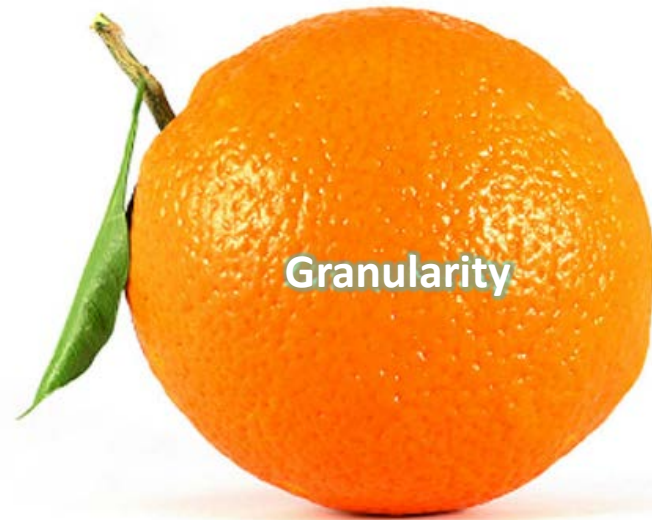
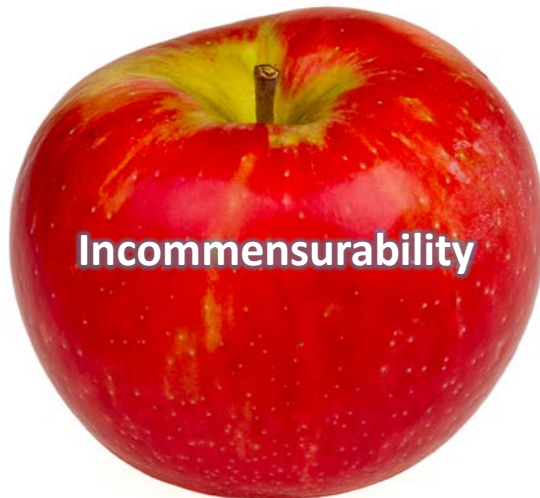


OpenLearn

TESS | **India**



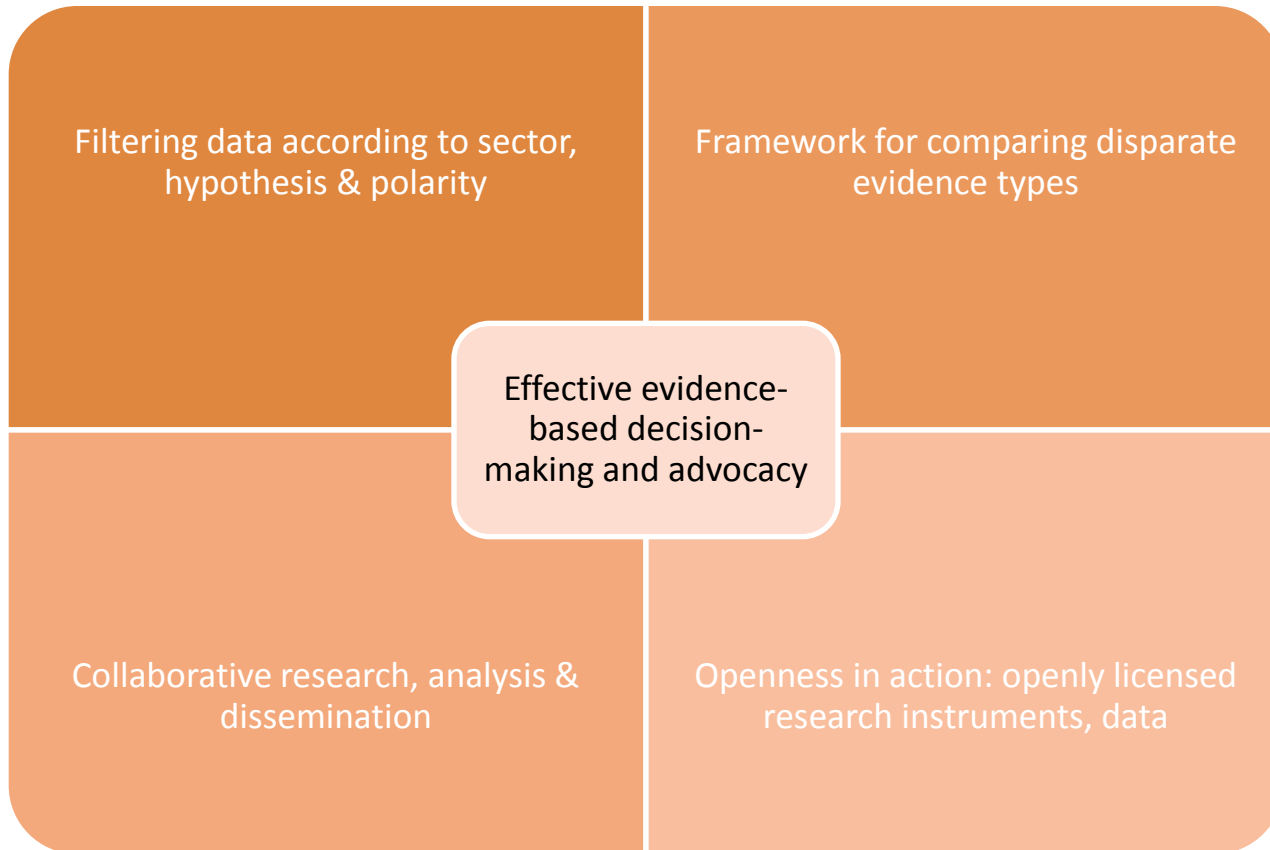
Methodological Challenges



Research Hypotheses

Keyword	Hypothesis
Performance	OER improve student performance/satisfaction
Openness	People use OER differently from other online materials
Access	OER widen participation in education
Retention	OER can help at-risk learners to finish their studies
Reflection	OER use leads educators to reflect on their practice
Finance	OER adoption brings financial benefits for students/institutions
Indicators	Informal learners use a variety of indicators when selecting OER
Support	Informal learners develop their own forms of study support
Transition	OER support informal learners in moving to formal study
Policy	OER use encourages institutions to change their policies
Assessment	Informal assessments motivate learners using OER

Why an Evidence Hub?



UNESCO Mapping Project (2012)

<http://unescochair.athabasca.ca/oer-mapping-exercise>

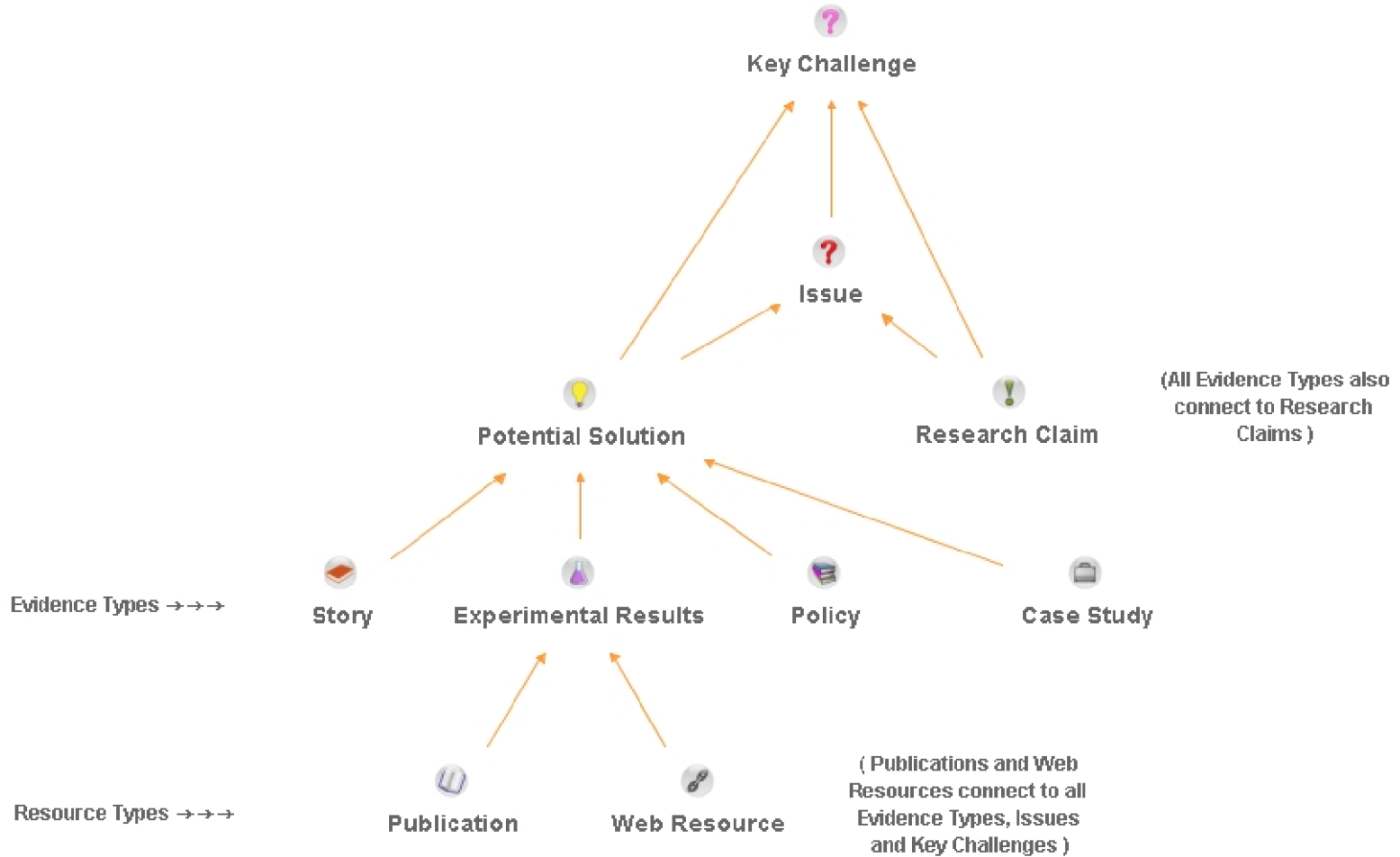
- Mapping to raise awareness of OER
- Tracking complexity, identifying major players & actions
- Community building, communication and advocacy
- Localised data with centralised quality control

OLnet Evidence Hub (2011-2012)

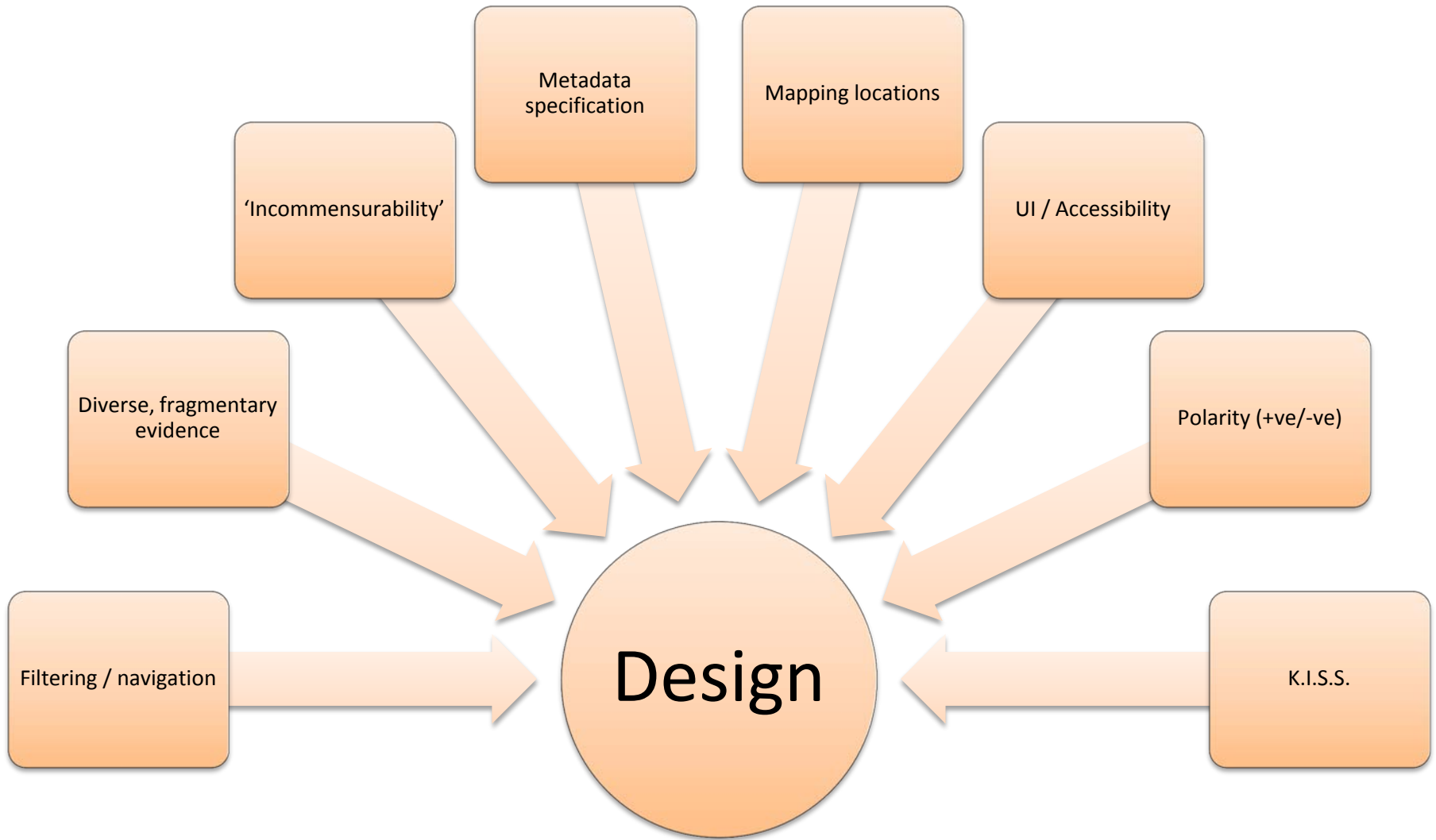
<http://ci.olnet.org/>

- Explore and debate key challenges for OER movement
- Collective intelligence: raise questions, propose solutions
- Sharing relevant web resources

OLnet Evidence Hub Data Model



Designing a new evidence hub



Information Architecture

Title

- Text

Copy

- Text / HTML
- Supports embedding of multimedia content

Hypothesis

- Association of evidence with hypothesis

Polarity

- Evidence is either +ve/-ve in relation to a hypothesis

Location

- Geotagging / GPS

Sector

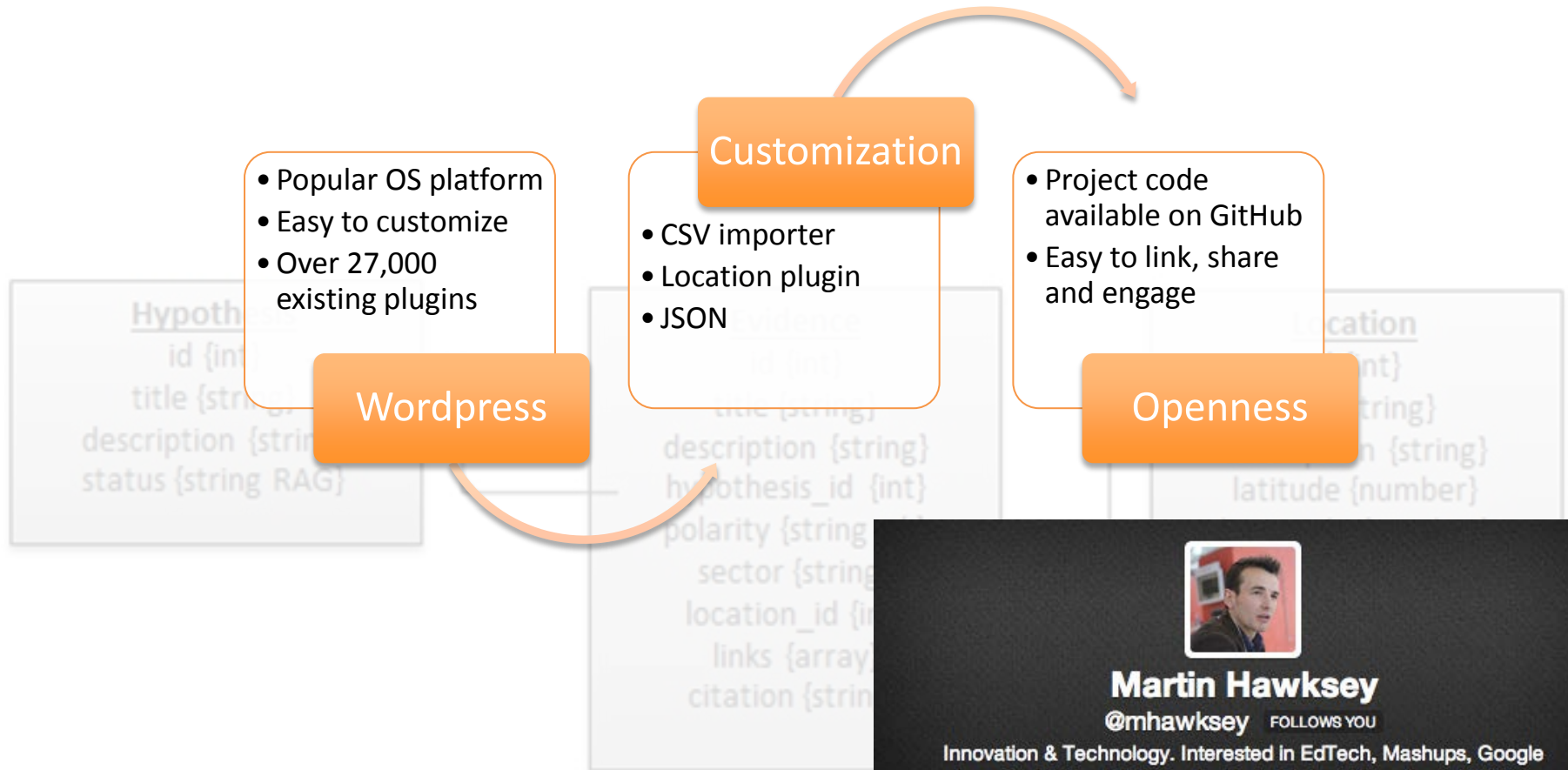
- School (K12) / College / HE / Informal

Citation

- Academic citation
- Hyperlink / URL

Technical Development

<http://oerresearchhub.org/2013/10/04/building-an-evidence-hub-plugin-for-wordpress/>



Martin Hawksey

@mhawksey FOLLOWS YOU

Innovation & Technology. Interested in EdTech, Mashups, Google Apps Script, Social Networks, Data Mining/Wrangling, cMOOCs, Open Education, DDJ, SEO ...

Edinburgh, Scotland · mashe.hawksey.info

Implementation

OER Evidence Hub (ϕ)

Join us in building understanding of open education



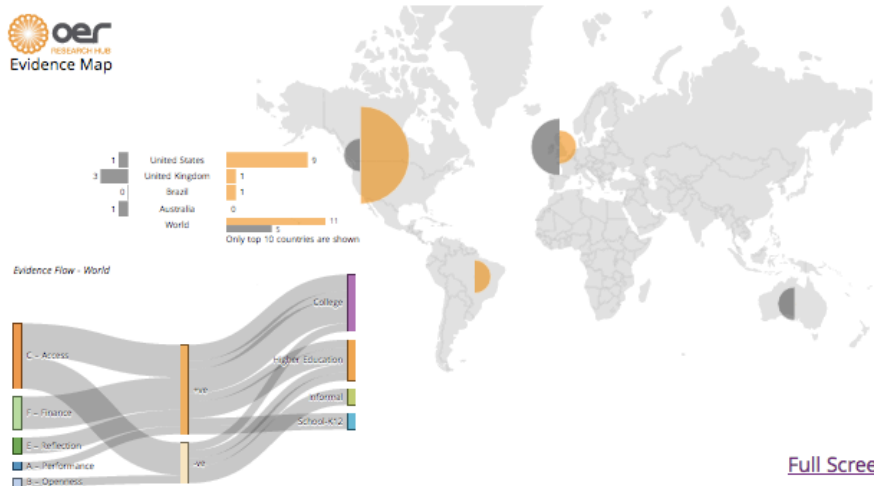
SUMMARY

EXPLORE HYPOTHESES

GLOBAL EVIDENCE MAP

FILTERING ▾

PROJECT BLOG



This website gathers and publishes evidence about the impact of open educational resources (OER). It is maintained by the **OER Research Hub** project.

You can explore the data in a number of ways. Try the overall **summary** of the evidence entered so far, or see the distribution on a **global map**.

The **hypothesis** pages explain the essence of each study area and includes a text report on our evidence for key claims made about OER.

[Full Screen](#)

Welcome to the OER Evidence Hub. This is a site designed to help people understand the impact of open educational resources (OER). We are based in [The Institute of Educational Technology](#) at [The Open University](#). Our main project website can be found [here](#).

If you have evidence that you would like to submit to us please click [here](#).

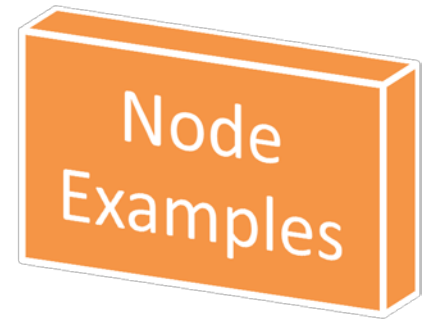
OpenLearn Survey (July 2013)

Polarity: [-ve](#) | Sector: [Informal](#) | Country: [United Kingdom](#) | Hypothesis: [C - Access](#)

Findings from the 2013 OpenLearn survey (collection point 1 July 2013) indicate that OpenLearn OER are not really widening access to education. OER users are often already well-qualified and tend to be employed. Only 6% of respondents (n=52) indicated that they had no qualifications. In contrast, 26% (n=227) indicated that they were qualified to undergraduate level and a further 20% (n=178) that they were qualified to postgraduate level. In employment, 58% (n=504) of respondents indicated that they were employed.

The most notable finding in terms of access is that 10% of respondents indicated that they had a disability.

Posted on [October 4, 2013](#) by [Rob Farrow](#). • [Edit](#)



Open online courses completion rate approximately 7%

Polarity: [-ve](#) | Sector: [Informal](#) | Country: [United Kingdom](#) | Hypothesis: [C - Access](#)

One study of academic social networks found that the average MOOC completion rate across 29 courses was just 6.8%. With completion rates this low it is arguable that learning goals for the courses have not been met in numbers.

Offer of university credit for MOOC course has no takers

Polarity: [-ve](#) | Sector: [College](#) | Country: [United States](#) | Hypothesis: [C - Access](#)

The Chronicle of Higher Education reported that when Colorado State University-Global Campus became the first college in the United States to grant credit to students who passed a MOOC students showed no interest despite the fact that they could have achieved college credits equivalent to \$1,050 for just \$89.


Citation: <http://chronicle.com/article/A-Universitys-Offer-of-Credit/140131/>

[education.co.uk/news/mooc-completion-rates-below-](http://www.bbc.com/education.co.uk/news/mooc-completion-rates-below-)



FLN educators believe OER use makes them more reflective

Polarity: [+ve](#) | Sector: [School-K12](#) | Country: [United States](#) | Hypothesis: [E - Reflection](#)

An OER Research Hub survey of 109 [flipped learning](#)  educators using free online educational resources in the K12 classroom reveals that 88.6% (n=86) agree or strongly agree that using free online resources helps them reflect more on the way that they teach. 70% (n=68) say that they more frequently compare their own teaching with others'.

Troy Faulkner, Math teacher at Byron High School in Minnesota, US explains this from a personal point of view:



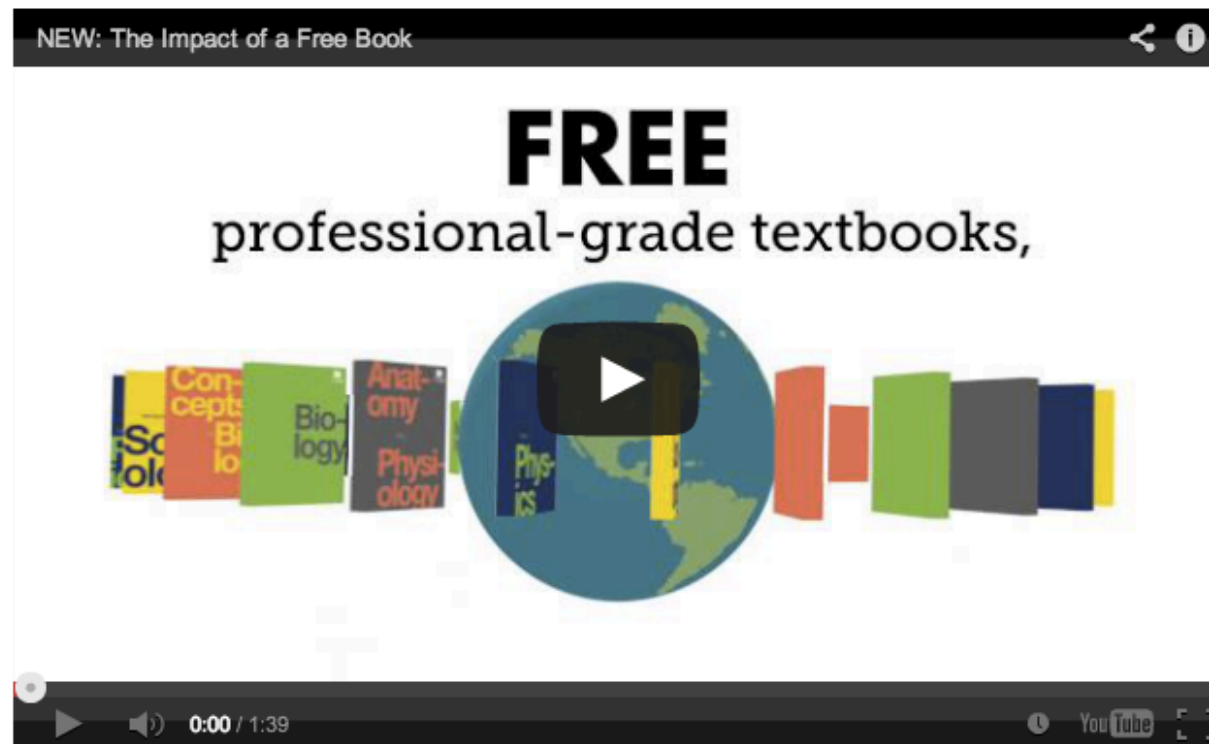
“It used to be that when I thought about preparing for a lesson I would look at a book and see what they did and then I would teach a lesson similar to it. But now I can go online, watch a video or look at somebody else’s materials that they put out there, see what they are doing and either modify what they are doing and bring it into my classroom, or just get a totally different perspective on it and allow my students to get multiple perspectives on a topic (...) so I guess searching what’s out there online allows me to be a better teacher”

\$3.7 million of savings for OpenStax users

Polarity: [+ve](#) | Sector: [College](#) | Country: [United States](#) | Hypothesis: [F - Finance](#)

Free textbook publisher OpenStax College today announced that nearly 300 educational institutions on four continents will use OpenStax textbooks for the coming school year.

“Our adoptions have almost doubled in the past four months, and we estimate we’ll save about 40,000 students more than \$3.7 million in the coming school year,” said Richard Baraniuk, founding director of the Rice University-based publisher.



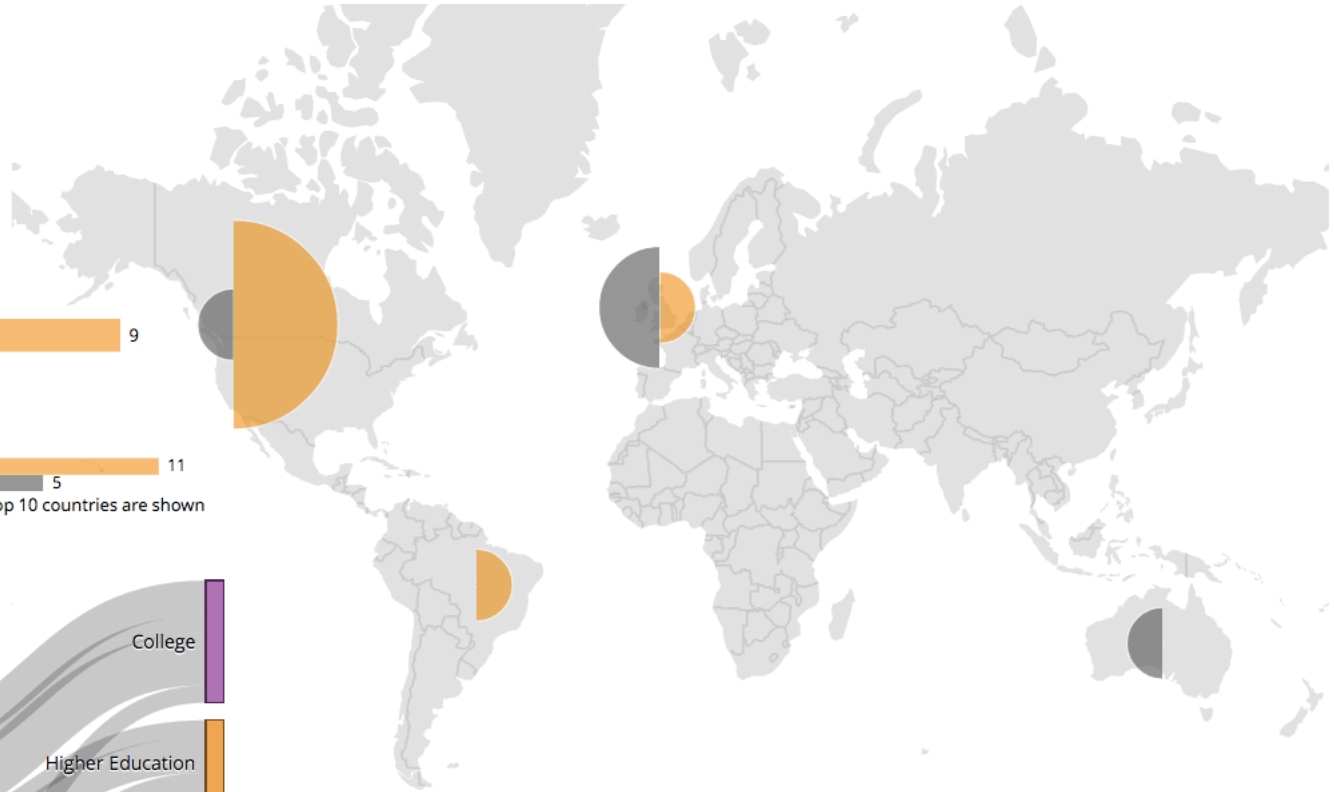
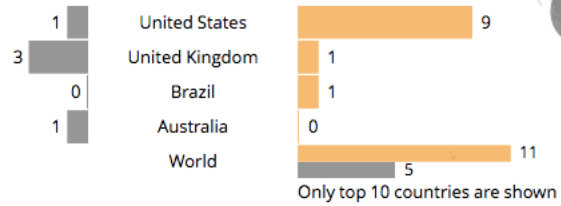
Citation: <http://openstaxcollege.org/news/openstax-college-saves-students-an-estimated-3-7-million-this-year>

Data Visualizations

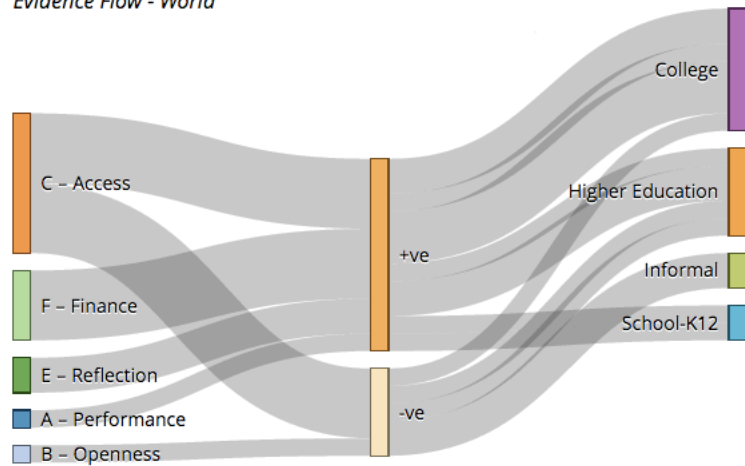
Evidence Map

Order by:

Negative Positive



Evidence Flow - World



Tested in latest versions of Firefox, Chrome, Safari, and Internet Explorer.

Original Author:
Timo Grossenbacher (BSc in Geography, University of Zurich)

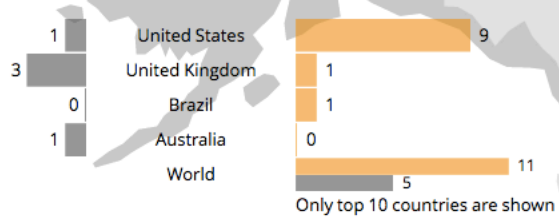
Modified By Author:
Martin Hawksey

Sources:
Original Code: [Timo Grossenbacher/Global Oil Presentation](#)
Geodata: [mbostock/topojson](#)

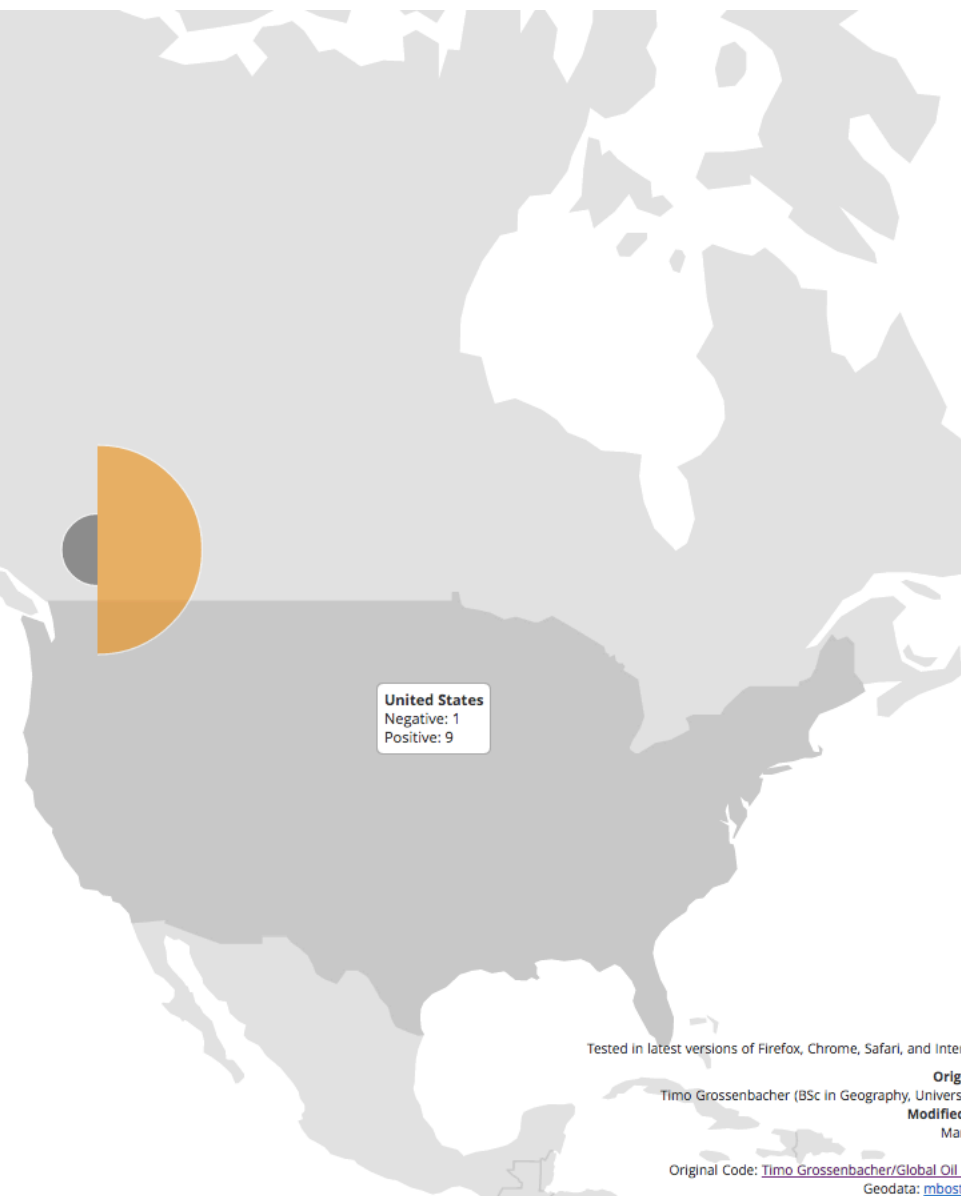
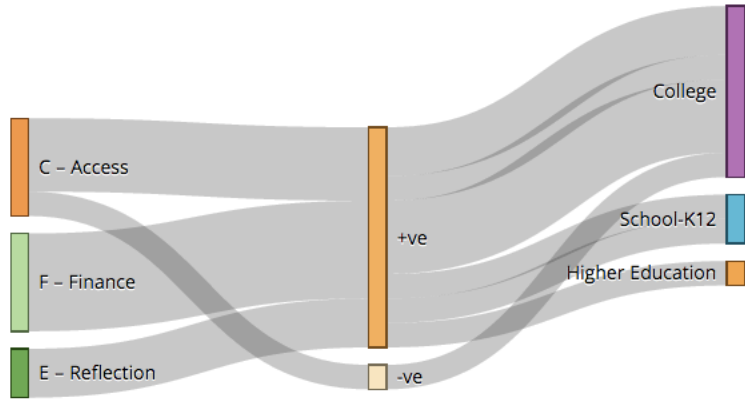
Evidence Map

Order by:

Negative Positive



Evidence Flow - United States

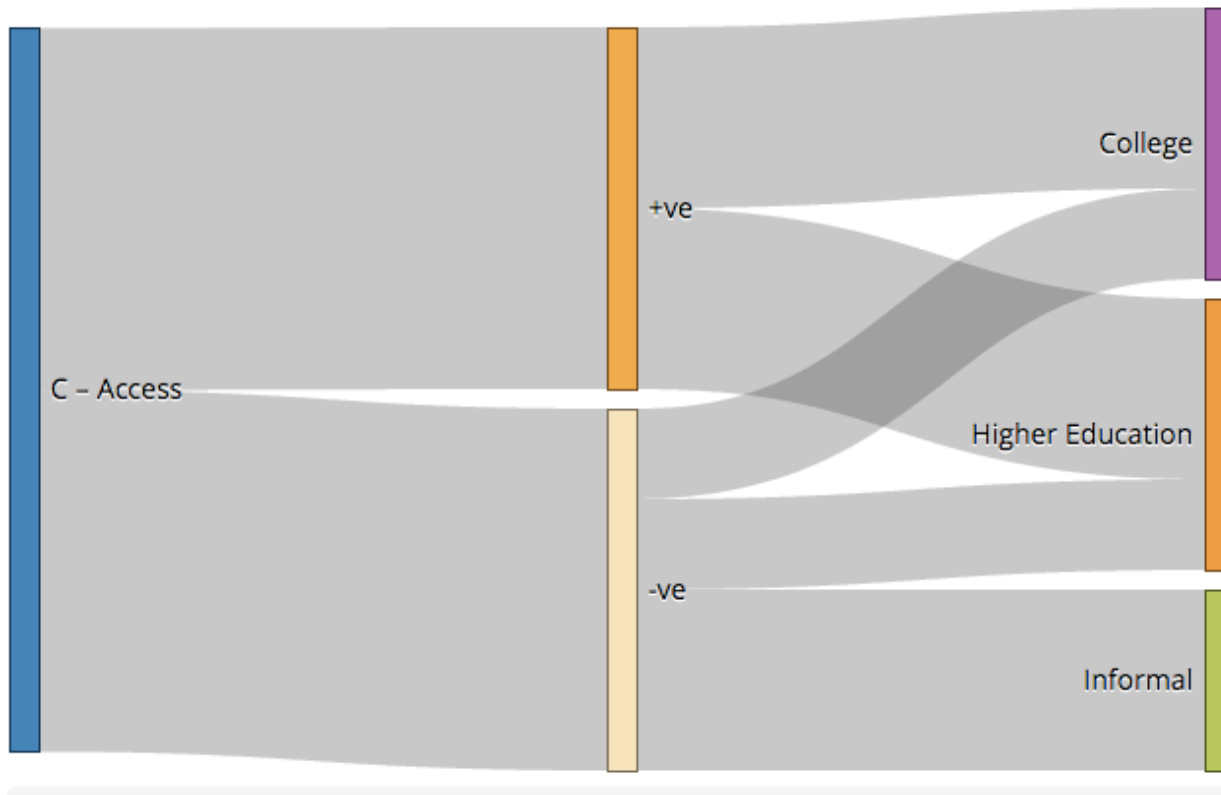


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Sankey Diagrams track the flow of evidence



Live Demo

<http://sites.hawksey.info/oerhub/>

Future Iteration

Full zoom map
with pop-up
bubbles

Integration with
social media

Machine
curation

API Integration:
SurveyMonkey,
Google, etc.

Data
Visualizations

Human curation
bookmarklet

Data mashups
using open data

Exporting data
sets under
open licence

Argumentation
analysis



Call for Evidence / Feedback

We want your feedback!



And your data!



The Open
University



Thanks for listening!

oerresearchhub.org

rob.farrow@open.ac.uk

@philosopher1978