

Pressing needs in open research and how funders can help



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Why I believe in open scholarship as a researcher and teacher

I began my research career here...

At many large research universities, researchers don't see the access problem.



...then I graduated and things changed

Many students and postdocs lose access when they graduate or change jobs.



I moved to Puerto Rico to work with students



Students struggled to access literature



Real emails from my students needing access

[REDACTED]

Tue, Feb 14, 2012 at 1:22 AM

To: "Profa. Erin McKiernan" <emck31@gmail.com>

Hi Erin! I found this article and I want to read it, but I have to pay for it. Can you download it for me?

[REDACTED]

Thu, Mar 15, 2012 at 4:26 AM

To: "Profa. Erin McKiernan" <emck31@gmail.com>

Hi Erin. I need help, can you download these two articles for me? Its for my other research.

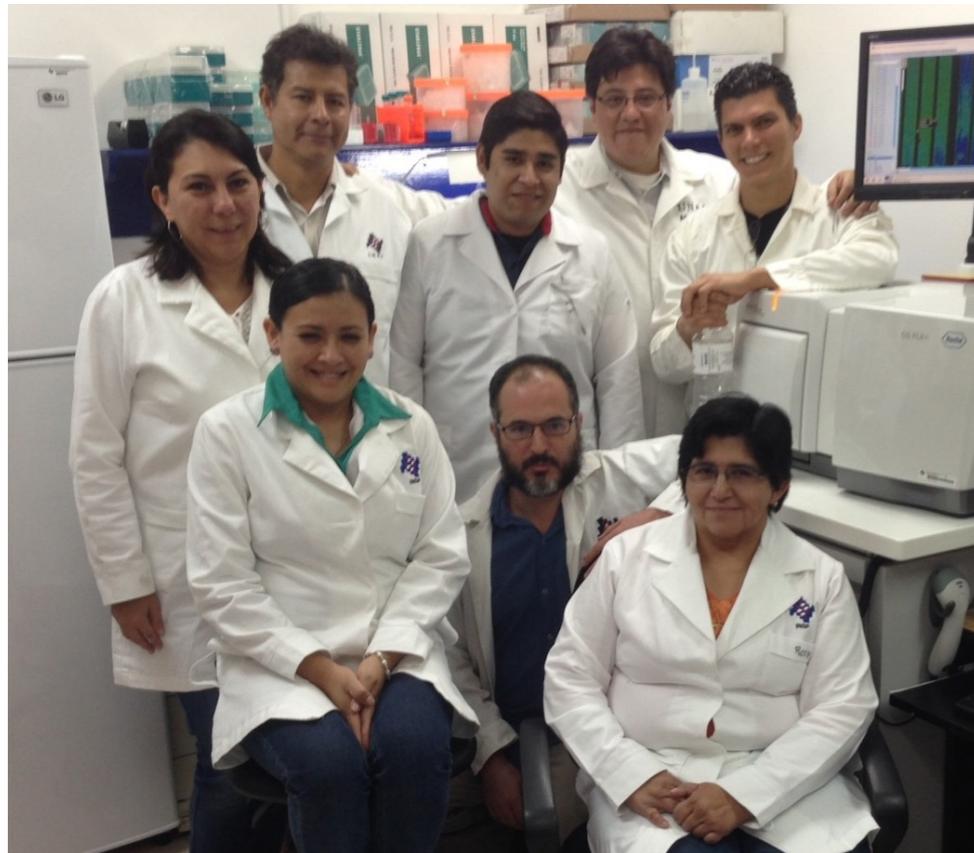
[REDACTED]

Sat, Mar 17, 2012 at 5:37 PM

To: "Profa. Erin McKiernan" <emck31@gmail.com>

Hi Erin. Another download, please? I feel ashamed asking you again, but I cant download them, I tried going through UPR Library but it didn't worked.

Then, I moved to Mexico...



Photos: Tina Godoy

Institutions in Mexico have insufficient access



Photo: Delmoral815, via Wikimedia

The National Institute of Public Health is a federal research institute.

~300 researchers, ~700 students

Access at INSP:

- **139** journals in total accessible via institute
- 88 journals in total with electronic access
- 66 journals with electronic access via paid subscriptions
- 22 journals with free electronic access provided by publisher
- 51 print-only journals (e.g. Cell, Nature, Science)
- access to select journals through consortium (CONRICyT)

Thanks to Edgar Aguilar Vera at INSP for info.

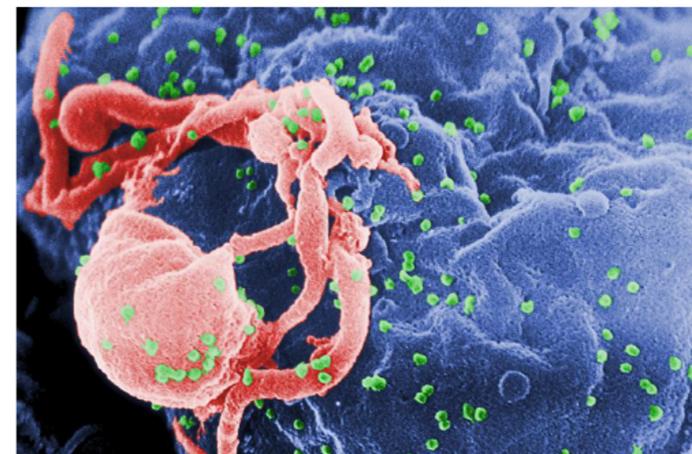
High costs of subscriptions are prohibitive

Researchers in the institute study Chagas' disease, cholera, dengue, HIV, influenza, malaria, tuberculosis...

INSP does **NOT** have access to:

- Annual Reviews of Medicine
- Current Biology
- Nature Medicine
- Nature Immunology
- PNAS
- ...and MANY more

What is the limiting factor? COST.



Why I believe in open research as a patient

[personal, in-room discussion]

Why I believe in open research as a humanitarian

Sharing is not a crime; Compartir no es delito

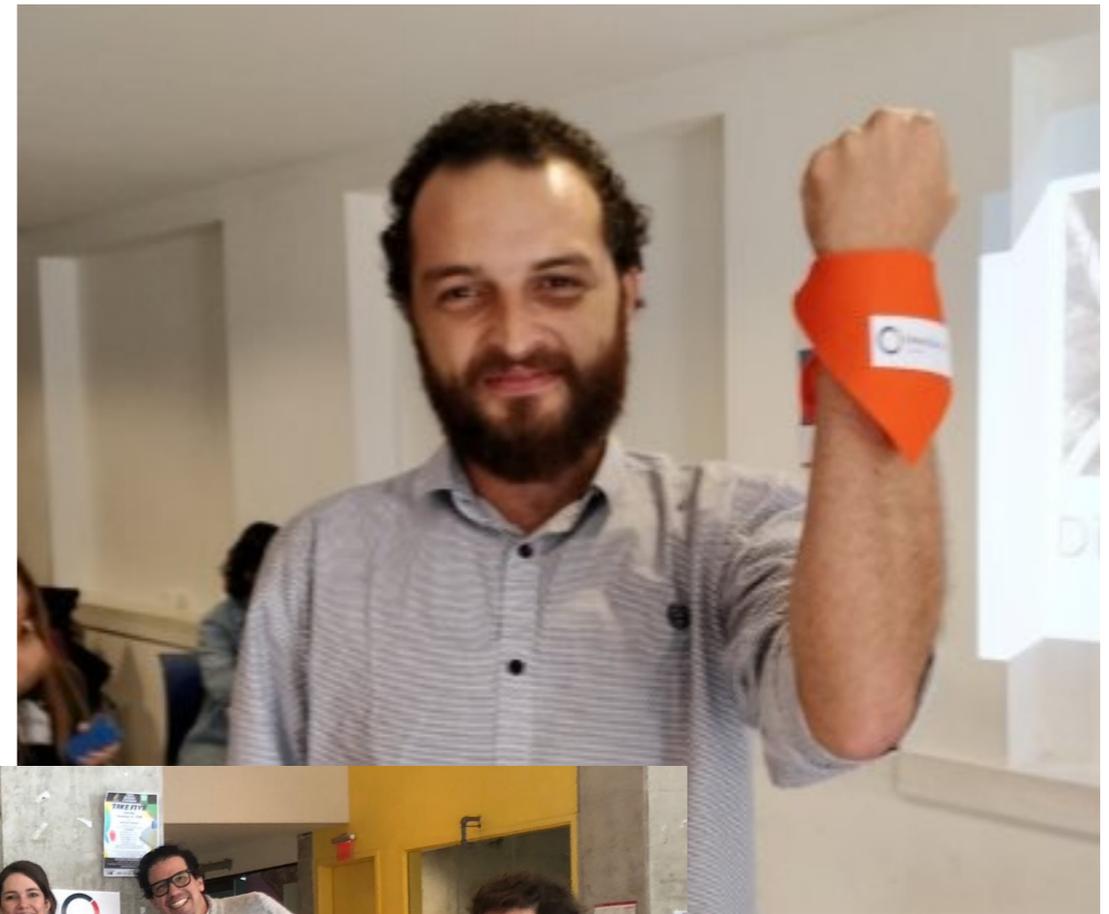


www.karisma.org.co

**Why are students
criminalized for sharing
knowledge?**

<https://creativecommons.org/2017/01/23/compartir-no-es-delito-sharing-not-crime/>

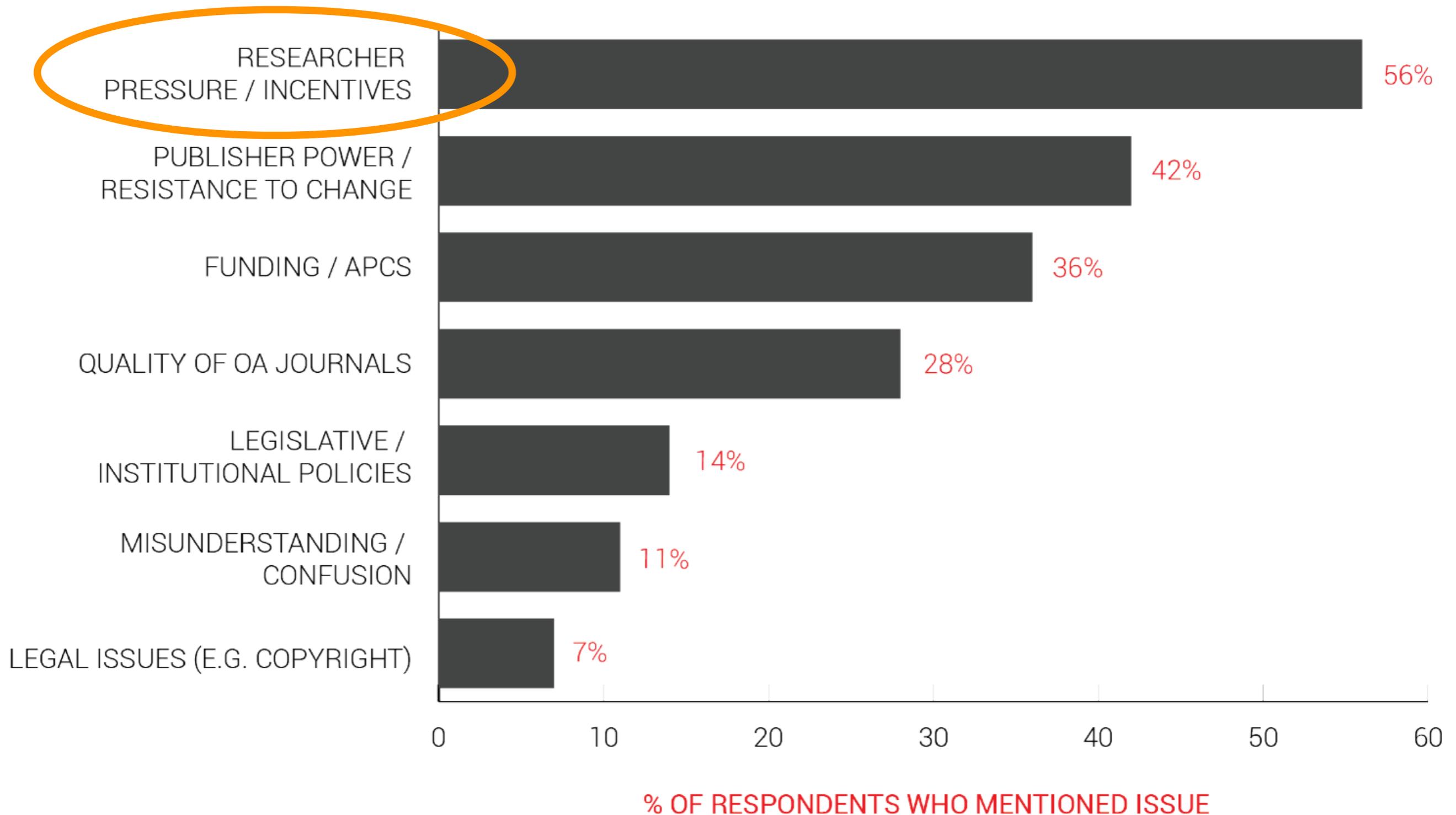
OpenCon/R2RC Next Generation Leadership award



Pressing needs in open research

1. **Better incentives** and reform of current evaluation systems
2. Support for **new business models and infrastructure** for open sharing
3. Support for **community building** and global capacity

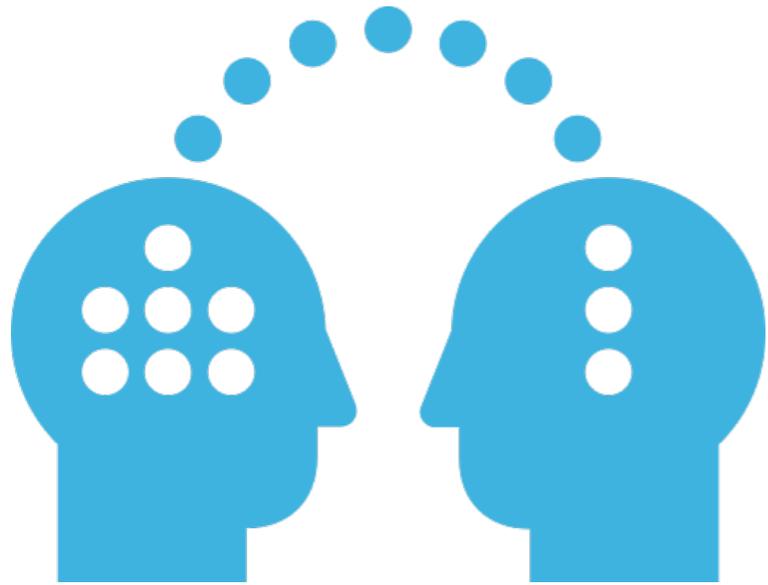
What are the biggest challenges facing open access?



Promotion and tenure



Public aspects of faculty work



knowledge exchange



open access



open source



blogging



citizen science



collaboration

Researchers cite concerns about promotion and tenure evaluations as a top reason they do not share their work.

**What do review, promotion,
and tenure documents say?**

**Do universities reward public
engagement, outreach,
sharing of research?**

Assessing Current Practices in the Review, Promotion and Tenure Process



864 RPT documents from **129** universities and **381** academic units (U.S. and Canada)

PI: Juan Pablo Alperin (SFU)

Co-PI: Meredith Niles (UVM) and Erin McKiernan (UNAM)

Funded by:



OPEN SOCIETY
FOUNDATIONS

Thank you!

Words and concepts of interest

‘public’

‘community’

‘public engagement’

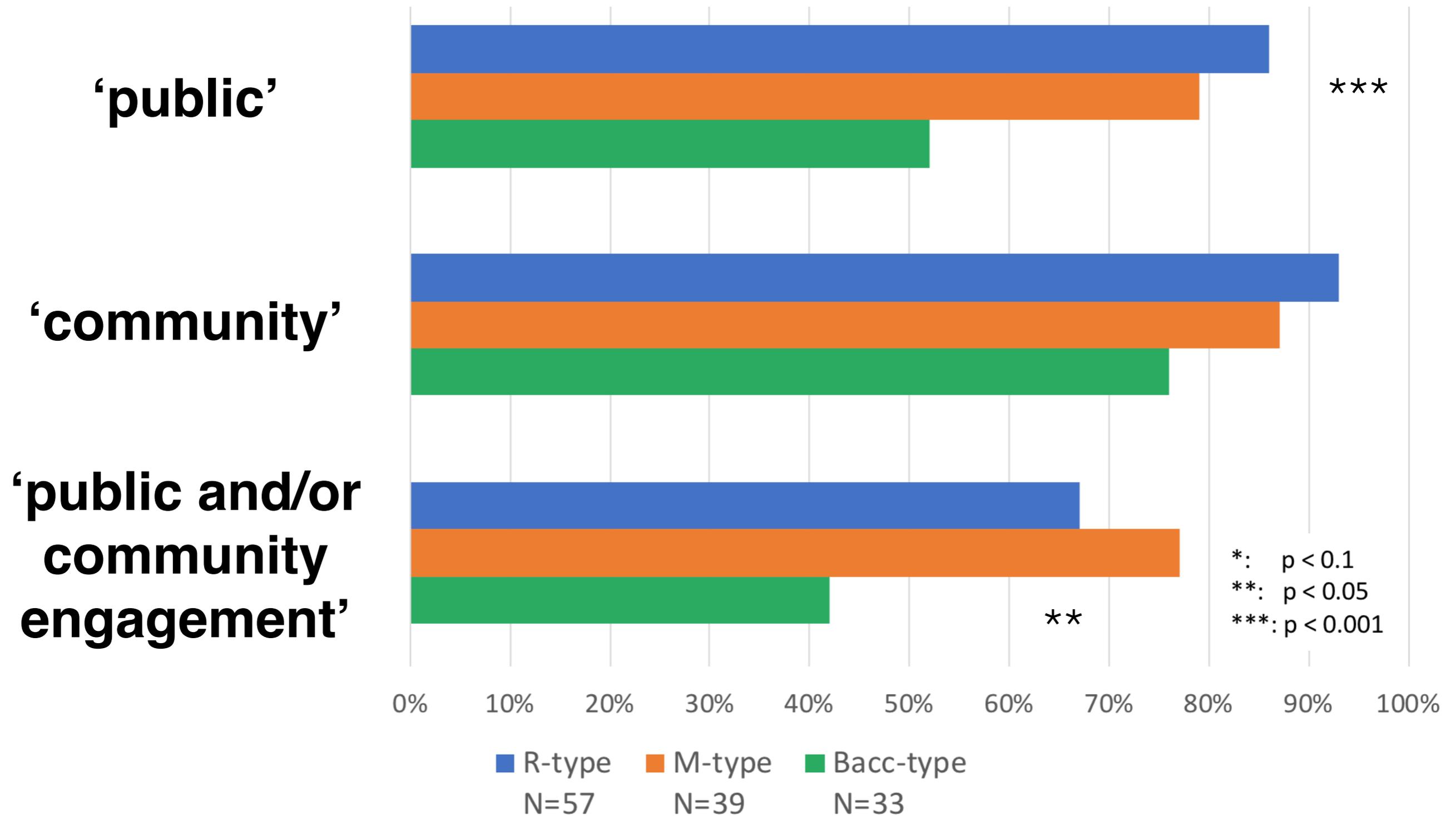
‘community engagement’

87% of institutions mention
‘community’ in RPT docs

75% mention **‘public’**

64% mention
‘public engagement’ and/or
‘community engagement’

'Public', 'community' mentions in RPT docs



Words and concepts of interest

‘impact’

‘open access’

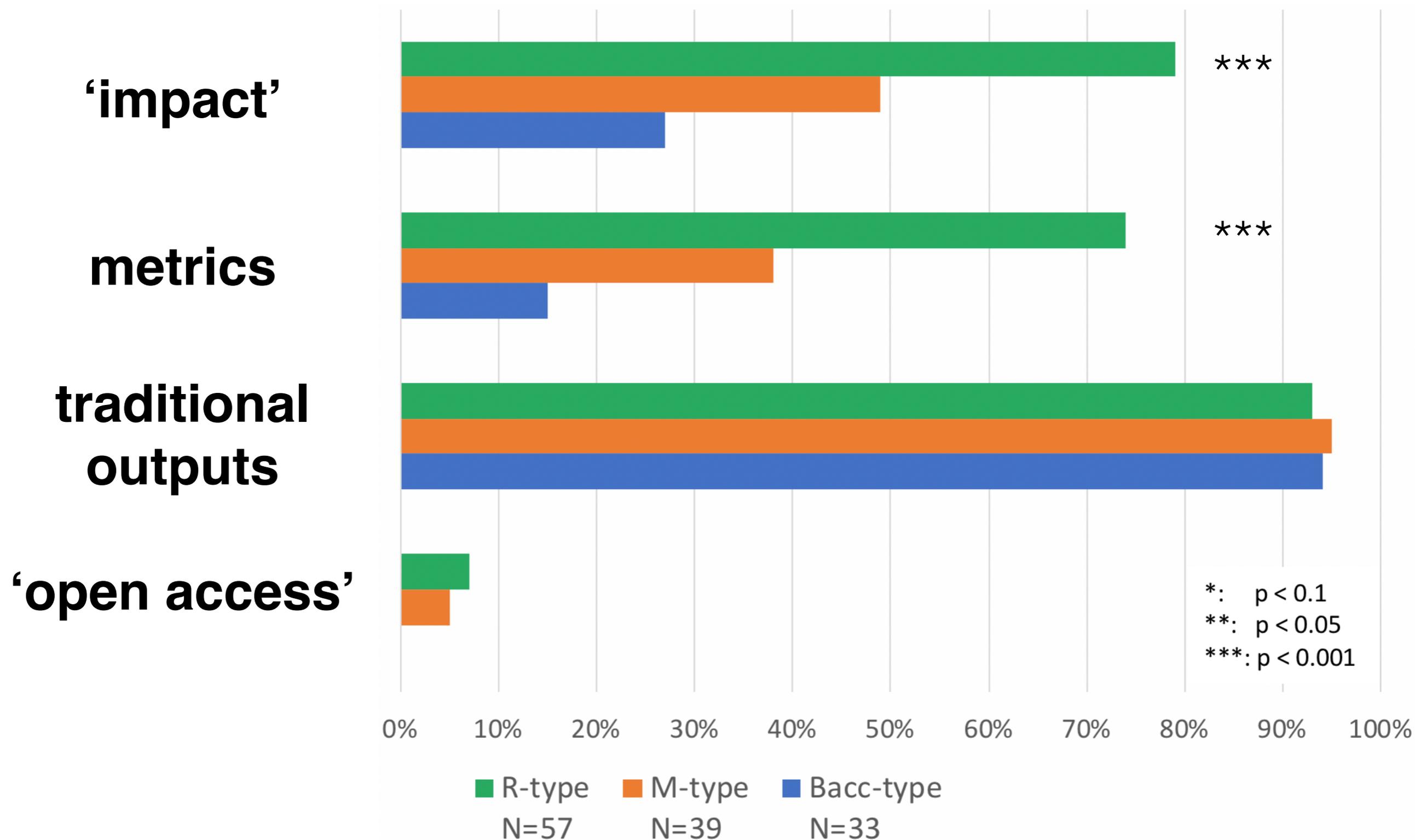
traditional outputs

**(books, conference proceedings, grants,
journal articles, monographs, presentations)**

metrics

**(citations, impact factor,
acceptance/rejection rates)**

RPT processes emphasize traditional outputs



Open access valued little, if at all, in RPT

- only 5% of institutions mention OA
- mentions neutral or negative, none supportive
- question quality of OA journals, caution against predatory journals



The **public** dimension of **impact**
is rarely mentioned explicitly
in RPT documents

only 9% of R-type institutions,
11% of M-type

Conclusions

While there is a relatively high incidence of the terms ‘**public**’ and ‘**community**’ in the RPT documents...there are **neither explicit incentives, nor clear structures of support** for assessing the contributions of scholarship to the various dimensions of publicness.

Despite all our advances in open access (open research) policies in U.S./Canada, this progress is not yet reflected in university evaluations.

My experiences with promotion and tenure processes

[personal, in-room discussion]

What's the good news?

YOU ALL can help fix this!

There are clear **opportunities** for **FUNDERS** to **change how research is assessed and incentivized** through grant application, awarding, and review processes.

Researchers want funding

We'll do what you say!

Institutions are also
paying attention to
funder practices.

Funders are in a
position of power. You
can lead, and help open
research be recognized.

Image: John R. McKiernan, Why Open
Research?, <http://whyopenresearch.org/> CC BY



Questions for funders

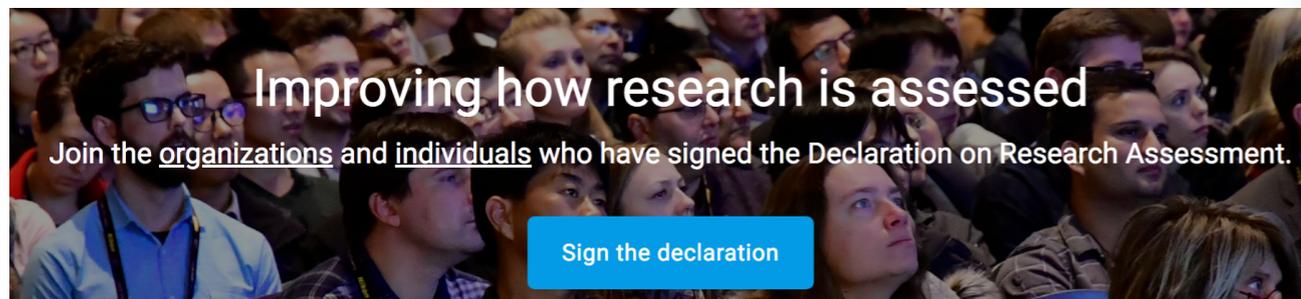
- Do your application or review documents mention public good/open research?
- Are you giving researchers multiple ways to demonstrate their open practices?
- Might you unintentionally be discouraging activities like sharing and public outreach?
- How might we better measure and reward open research and public impact?

Questions for funders

- Do your application or review documents focus only on traditional research outputs?
- Are you giving researchers space/opportunity to describe their non-traditional outputs?
- Are reviewers encouraged to consider non-traditional research outputs?
- How might we encourage researchers to describe, and reviewers to consider, these?

What can funders do?

Support initiatives like DORA and Leiden



<https://sfdora.org/>

Disclosure: I am a DORA Steering Committee member (volunteer)



The Leiden Manifesto for research metrics

Use these ten principles to guide research evaluation, urge **Diana Hicks**, **Paul Wouters** and colleagues.

<http://www.leidenmanifesto.org/>

DORA recommendations for funders

- be explicit about criteria used in evaluating scientific productivity of grant applicants
- clearly highlight that scientific content of a paper is more important than publication metrics or journal identity
- consider value and impact of all research outputs (including datasets and software) in addition to research publications
- consider a broad range of impact measures including qualitative indicators of research impact

Have an example of a good practice?

<https://sfdora.org/good-practices/funders/>

What can funders do?

Support responsible use of metrics

3.2.1 Fostering open science

RECOMMENDATION #1:

Ahead of the launch of its ninth research framework programme (FP9), the EC should provide clear guidelines for the responsible use of metrics in support of open science. In light of other recent initiatives, a growing number of research funders and universities across Europe and internationally are adopting formal policies on the responsible use of metrics in research evaluation, assessment and management. The position of the EC on the use of metrics across its different research funding modes should also include the European Research Council.

Next-generation metrics:

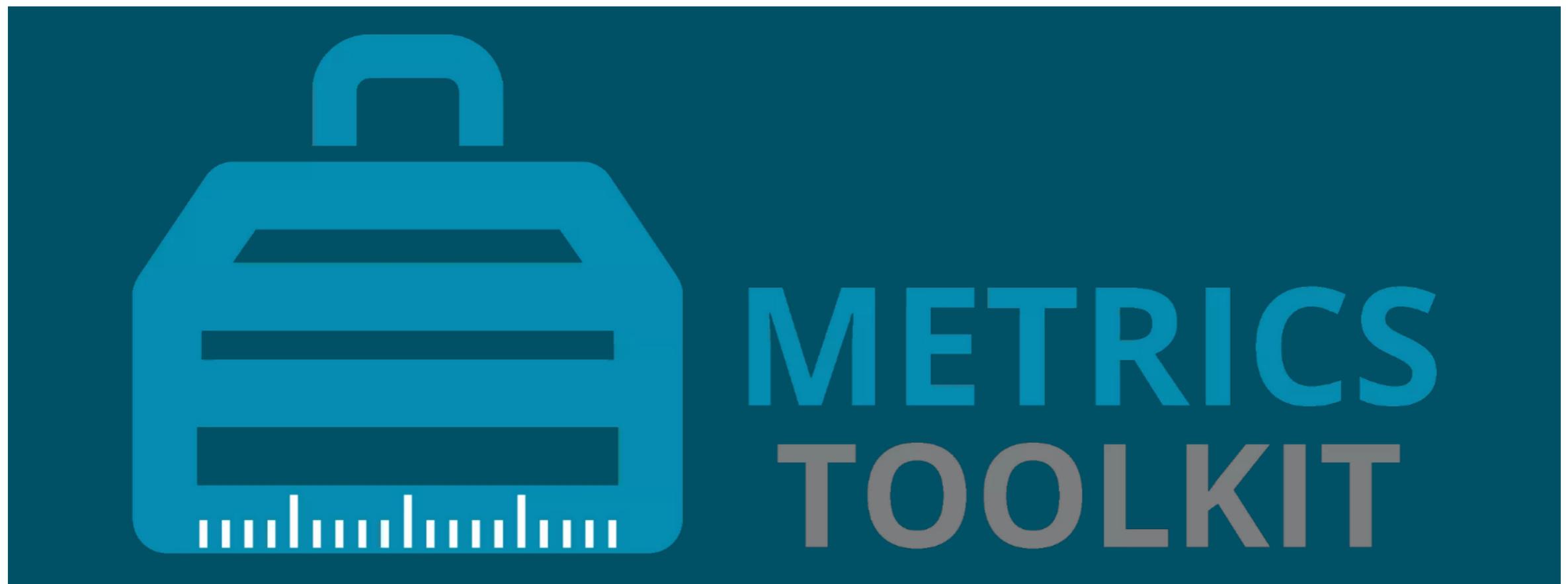
Responsible metrics and evaluation for open science



What can funders do?

Support responsible use of metrics

Metrics toolkit could be used in guidelines for reviewers



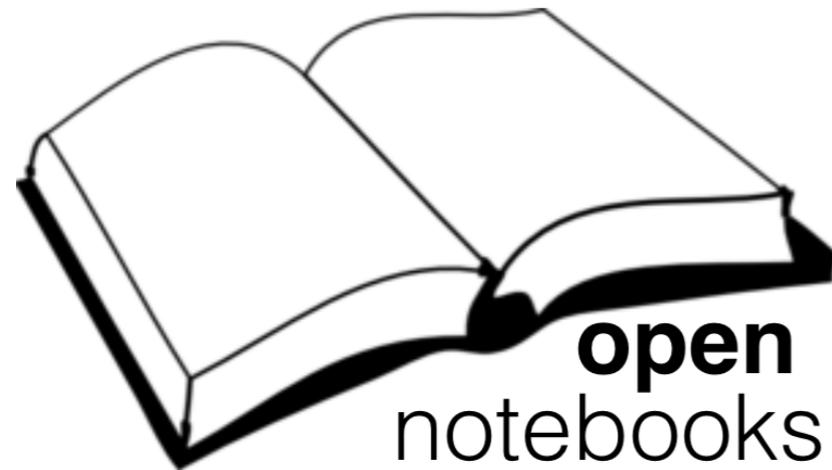
<http://www.metrics-toolkit.org/>

Disclosure: I am an advisor for Metrics Toolkit (volunteer)

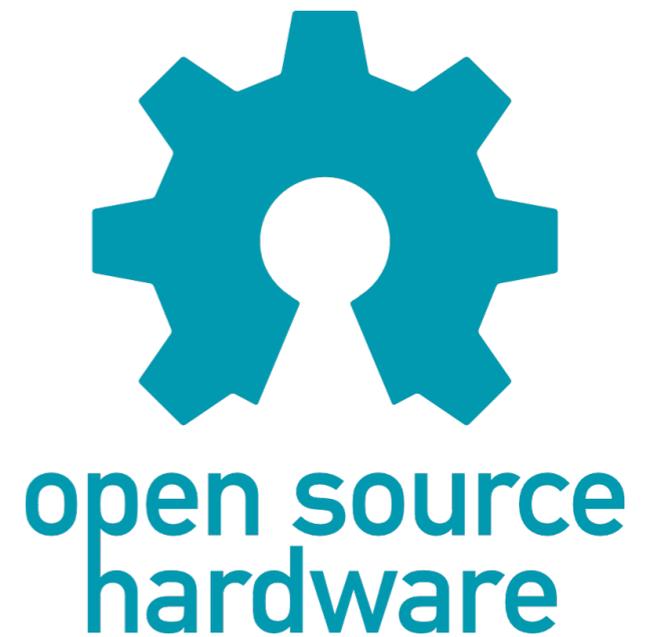
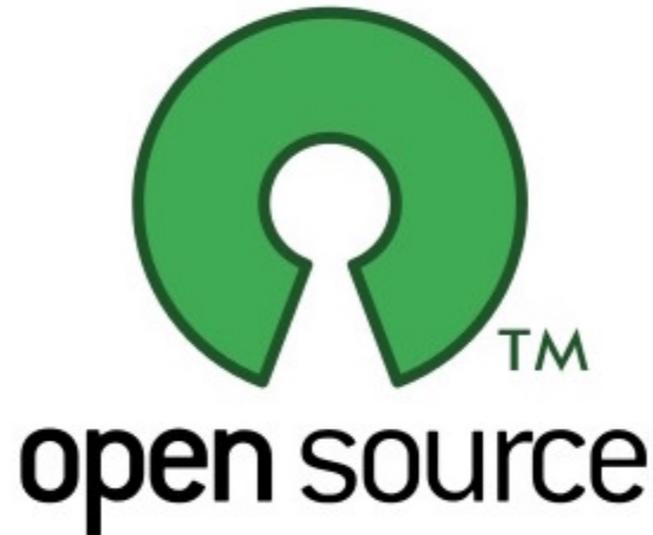
What can funders do?

Value diverse research outputs

Write these in to your call for applications and your reviewer guidelines!



open
notebooks

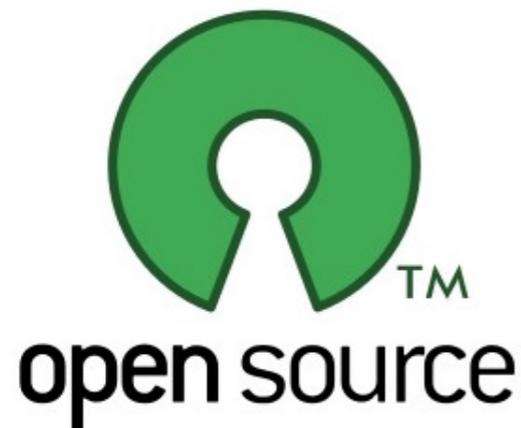


blogging

What can funders do?

Encourage use of new/alternative metrics

If you want to measure broad research impact, you can't just look at citations.



Downloads, forks, pull requests



Downloads, derivative works, new analyses



Number of community members, schools? involved

What can funders do?

Ask researchers for narrative statements

Let researchers tell their story!

Describe your top 3-5 research contributions. These could be articles, code, data sets, or other research products.

Explain the importance of this work and how it has impacted both academic and non-academic communities (case studies).

What can funders do?

Provide educational opportunities

Meet researchers where they are!
Incorporate training on open research practices
into grant training workshops.

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What can funders do?

Support community building efforts

Having a supportive community to rely on has been crucial for my success as an open researcher.



OPENCON

Empowering the Next Generation to Advance
Open Access, Open Education and Open Data



Disclosure: I am a member of the OpenCon Organizing Committee (volunteer)

Global conference



Panels,
workshops,
do-a-thons

Fotos: Slobodan Radicev



Satellite events - Africa



OpenCon 2016
UCH Ibadan
(Nigeria)
Foto: Babalola Ibisola
@BabalolaIbisola



OpenCon 2016 Nairobi
Foto: Liliaan Juma
@TheOnlyJuma



OpenCon 2017 Ife
(Nigeria)
Foto: BARAKAT TIAMIYU
@barakat_tiamiyu

Satellite events - Asia



OpenCon 2016 Ranchi (India)

Foto: Sridhar Gutam



OpenCon 2016 Lahore (Pakistan)

Foto: Mahasiswa UNJ @UNJkita



OpenCon 2016 Jakarta (Indonesia)

Foto: Mahasiswa UNJ @UNJkita

Satellite events - Latin America



OpenCon 2016 Campinas (Brazil)

Foto: Andreiwid Corrêa @andreiwid



OpenCon 2017 Costa Rica

Foto: Diego Gomez @diegogomezhoys

OpenCon LatAm was born at OpenCon 2016



Regional meeting to build local capacity



Growing community of LatAm advocates

The importance of finding your people



Community Calls



Community Collaborate



Community Webcasts

Just a few of the people who support me



Nick Shockey



Joe McArthur



Ivonne Lujano



Eunice Mercado



Juan Pablo Alperin

...and so many more from OpenCon community!

What can you do to help in these areas?

1. **Better incentives** and reform of current evaluation systems
2. Support for **new business models and infrastructure** for open sharing
3. Support for **community building** and global capacity

Thank you!