

Open Science: Some Possible Actions by University Leaders on Behalf of Researchers

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<http://www.slideshare.net/pebourne>

Thanks to Erin McKiernan

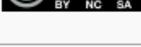
APLU CoR, August 1, 2016



My Definition of Open Science...

- The provision in sustainable resources of the products of research (data, software, reagents, publications etc.) at no cost to all, with suitable attribution and compliant with any restrictions associated with the research.

Seven regularly used licenses [\[edit \]](#)

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	Freeing content globally without restrictions	CC0	Yes	Yes	Yes
	Attribution alone	BY	Yes	Yes	Yes
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	Attribution + Noncommercial	BY-NC	No	Yes	No
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	Attribution + Noncommercial + ShareAlike	BY-NC-SA	No	Yes	No
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The State of Play

- Open science practices are growing through desire and through funders and publishers actions (the levers)
- Widespread adoption of open science is not yet achieved
- Researchers are uncertain about how sharing their work will affect their careers ...



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ACCEPTED MANUSCRIPT

How open science helps researchers succeed



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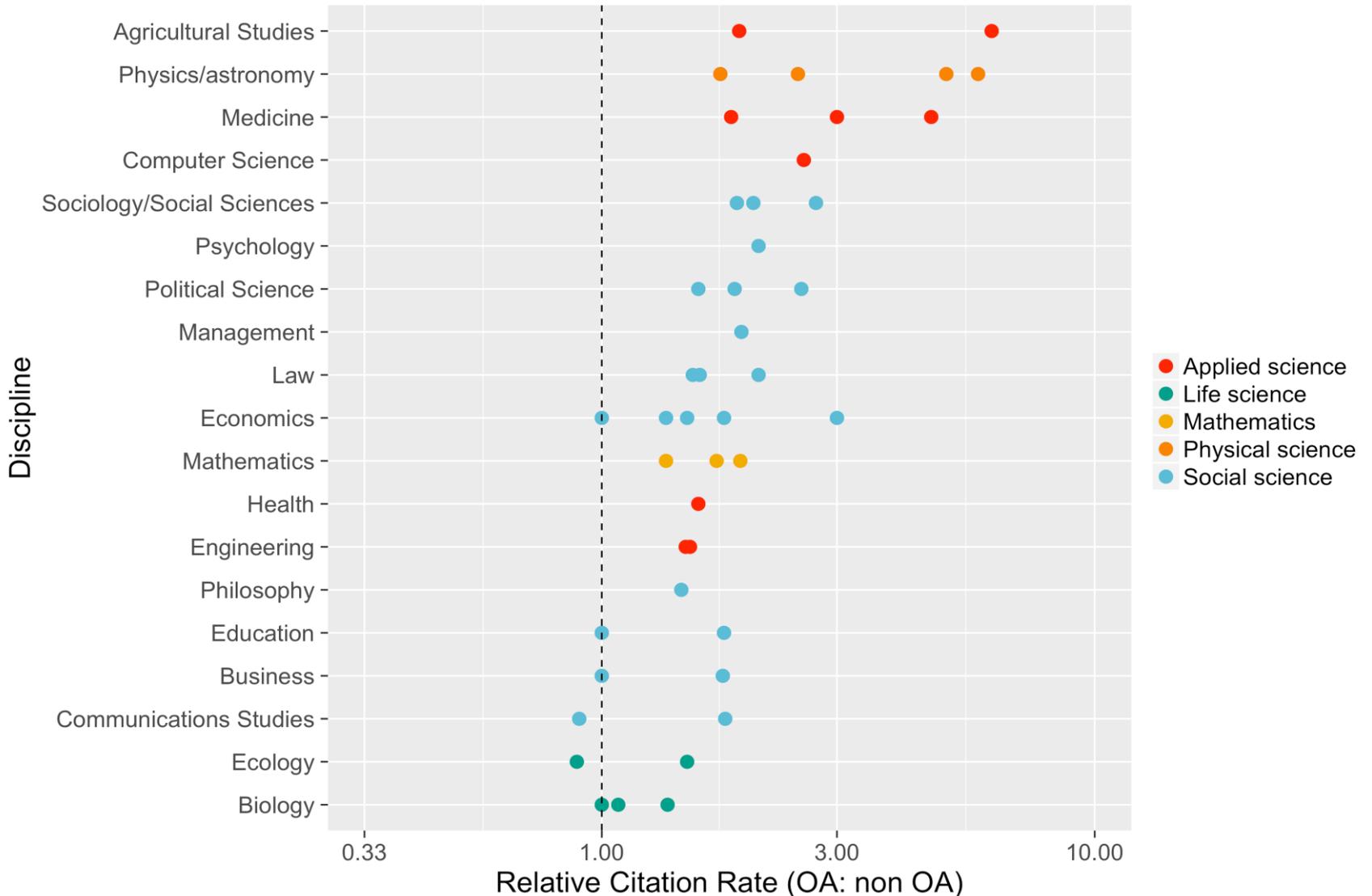
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1. Encourage Publishing
in OA Journals – More
Citations – More Grants
(?)

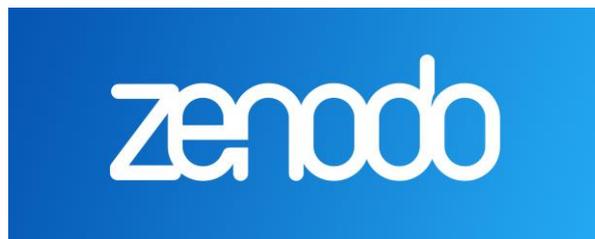
Open Access Articles Get More Citations



mean citation rate of OA articles divided by mean citation rate of non-OA articles

2. Encourage Preprints –
Earlier access to work
benefits young
researchers and increases
exposure and does not
preclude publishing
formally

Preprint servers and repositories accepting preprints



**3. Encourage researchers
to look for open science
opportunities**

Funding for open research, training, and advocacy

Funding	Description	URL
Shuttleworth Foundation Fellowship Program	funding for researchers working openly on diverse problems	shuttleworthfoundation.org/fellows/
Mozilla Fellowship for Science	funding for researchers interested in open data and open source	www.mozillascience.org/fellows
Leamer-Rosenthal Prizes for Open Social Science (UC Berkeley and John Templeton Foundation)	rewards social scientists for open research and education practices	www.bitss.org/prizes/leamer-rosenthal-prizes/
OpenCon Travel Scholarship (Right to Research Coalition and SPARC)	funding for students and early-career researchers to attend OpenCon, and receive training in open practices and advocacy	www.opencon2016.org/
Preregistration Challenge (Center for Open Science)	prizes for researchers who publish the results of a preregistered study	cos.io/prereg/
Open Science Prize (Wellcome Trust, NIH, and HHMI)	funding to develop services, tools, and platforms that will increase openness in biomedical research	www.openscienceprize.org/



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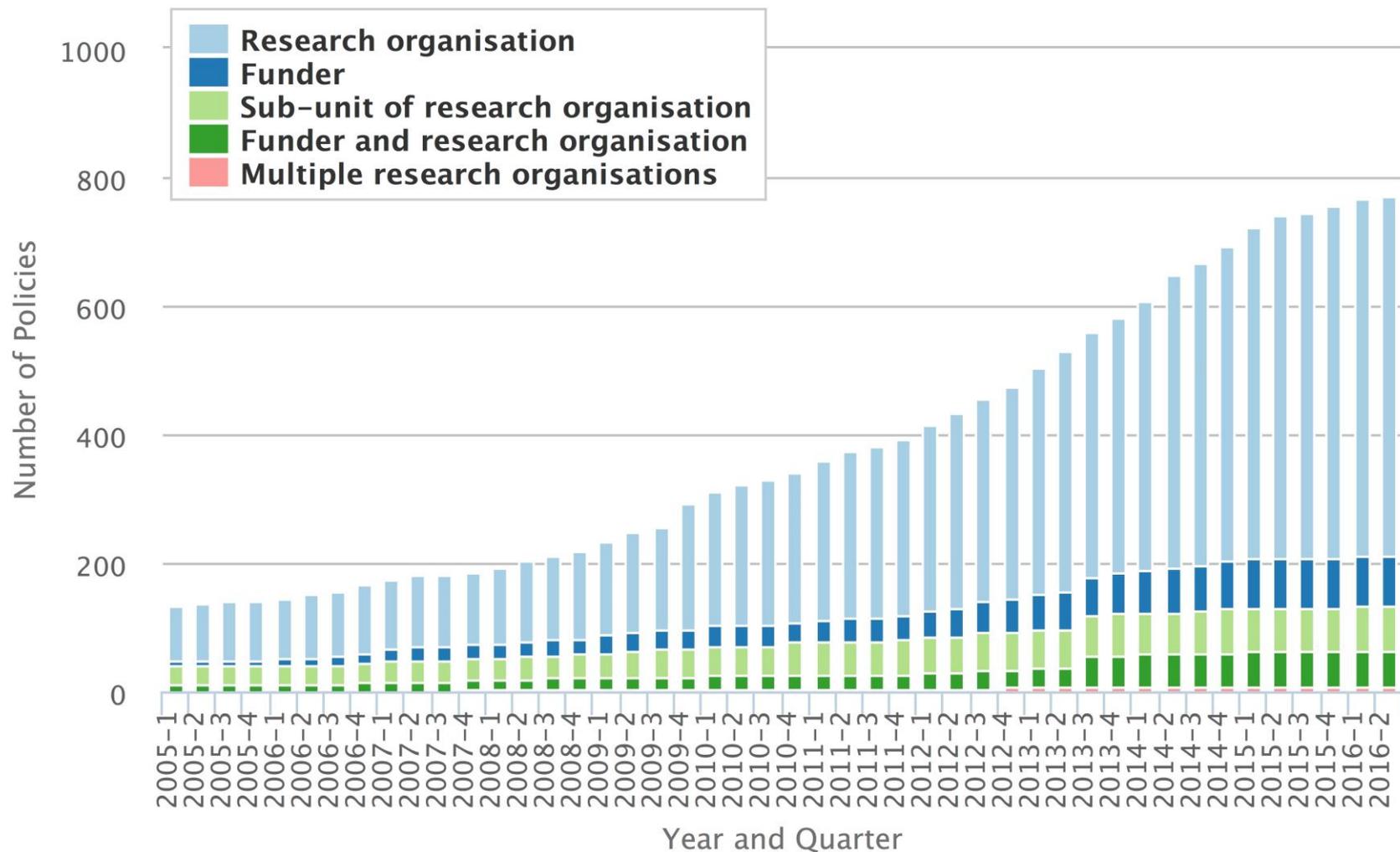
Empowering the Next Generation to Advance
Open Access, Open Education and Open Data



The
**Open
Science
Prize**

4. Encourage researchers
to be aware of existing
policies

Increase in open access policies over last decade



- open access policies registered in ROARMAP (roarmap.eprints.org)

- figure used with permission from Stevan Harnad

5. Post previously
published articles in a
public repository

6. Encourage the preregistration of studies

7. Encourage the deposition of data, software, reagents etc...

Citation is coming!



open science

In his 2012 book *Open Access*, Peter Suber summed it up best:

“[OA] increases a work’s visibility, retrievability, audience, usage, and citations, which all convert to career building. For publishing scholars, it would be a bargain even if it were costly, difficult, and time-consuming. But...it’s not costly, not difficult, and not time-consuming.”

Suber P. 2012. *Open Access*. MIT Press. <http://bit.ly/oa-book>

Backpocket

Preprint servers and repositories accepting preprints

Preprint server or repository*	Subject areas	Repository open source?	Public API?	Can leave feedback?†	Third party persistent ID?
arXiv arxiv.org	physics, mathematics, computer science, quantitative biology, quantitative finance, statistics	No	Yes	No	No‡
bioRxiv biorxiv.org	biology, life sciences	No	No	Yes	Yes (DOI)
CERN document server cds.cern.ch	high-energy physics	Yes (GPL)	Yes	No	No
Cogprints cogprints.org	psychology, neuroscience, linguistics, computer science, philosophy, biology	No	Yes	No	No
EconStor econstor.eu	economics	No	Yes	No	Yes (Handle)
e-LiS eprints.rclis.org	library and information sciences	No [§]	Yes	No	Yes (Handle)
figshare figshare.com	general repository for all disciplines	No	Yes	Yes	Yes (DOI)
Munich Personal RePEc Archive mpra.ub.uni-muenchen.de	economics	No [¶]	Yes	No	No
Open Science Framework osf.io	general repository for all disciplines	Yes (Apache 2)	Yes	Yes	Yes (DOI/ARK)
PeerJ Preprints peerj.com/archives-preprints	biological, life, medical, and computer sciences	No	Yes	Yes	Yes (DOI)
PhilSci Archive philsci-archive.pitt.edu	philosophy of science	No**	Yes	No	No
Self-Journal of Science www.sjscience.org	general repository for all disciplines	No	No	Yes	No
Social Science Research Network ssrn.com	social sciences and humanities	No	No	Yes	Yes (DOI)
The Winnower thewinnower.com	general repository for all disciplines	No	No	Yes	Yes (DOI) ^{††}
Zenodo zenodo.org	general repository for all disciplines	Yes (GPLv2)	Yes	No	Yes (DOI)

Questions?