

Open Research – an institutional perspective

OASPA Open Science Webinar: A view from Researchers, Institutions and the Open Science Policy Platform

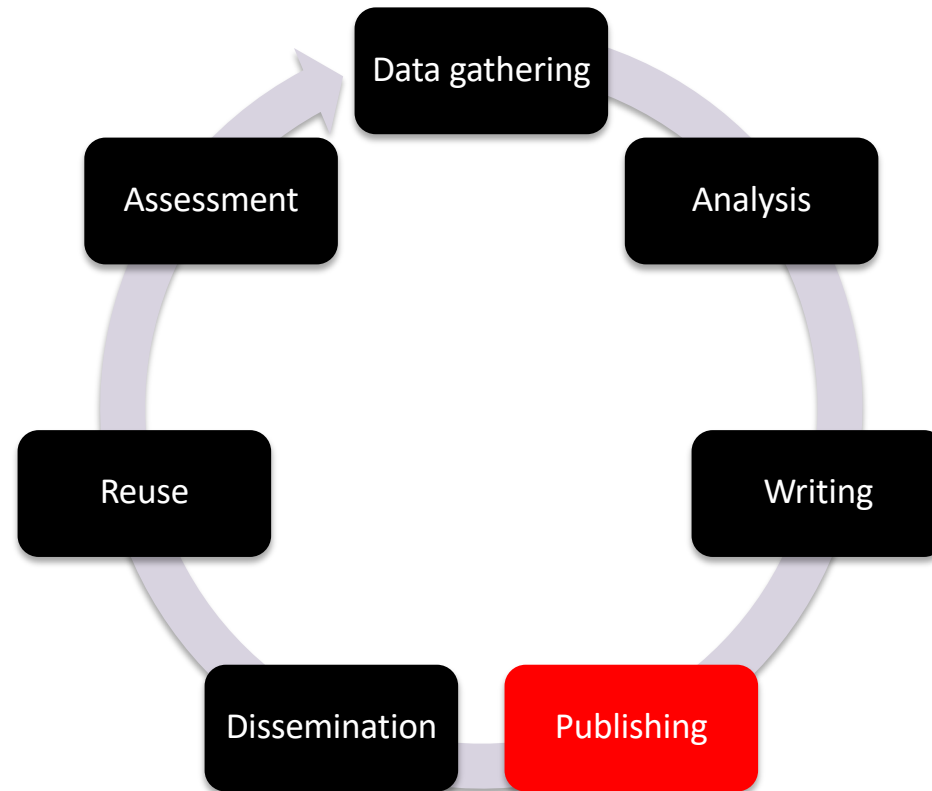
29 November 2018

Dr Danny Kingsley
Deputy Director, Scholarly Communication & Research Services
Cambridge University Libraries
@dannykay68

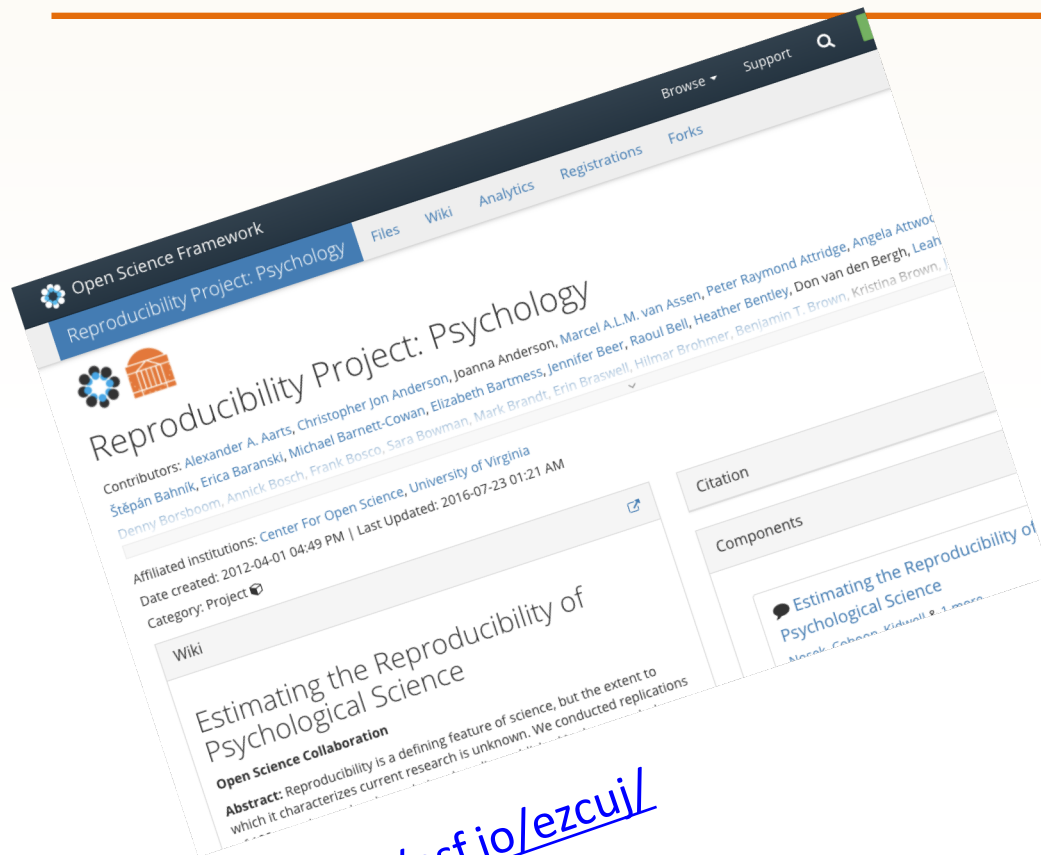


Why Open Research?

The only thing that counts in academia is
publication of **novel** results in
high impact journals



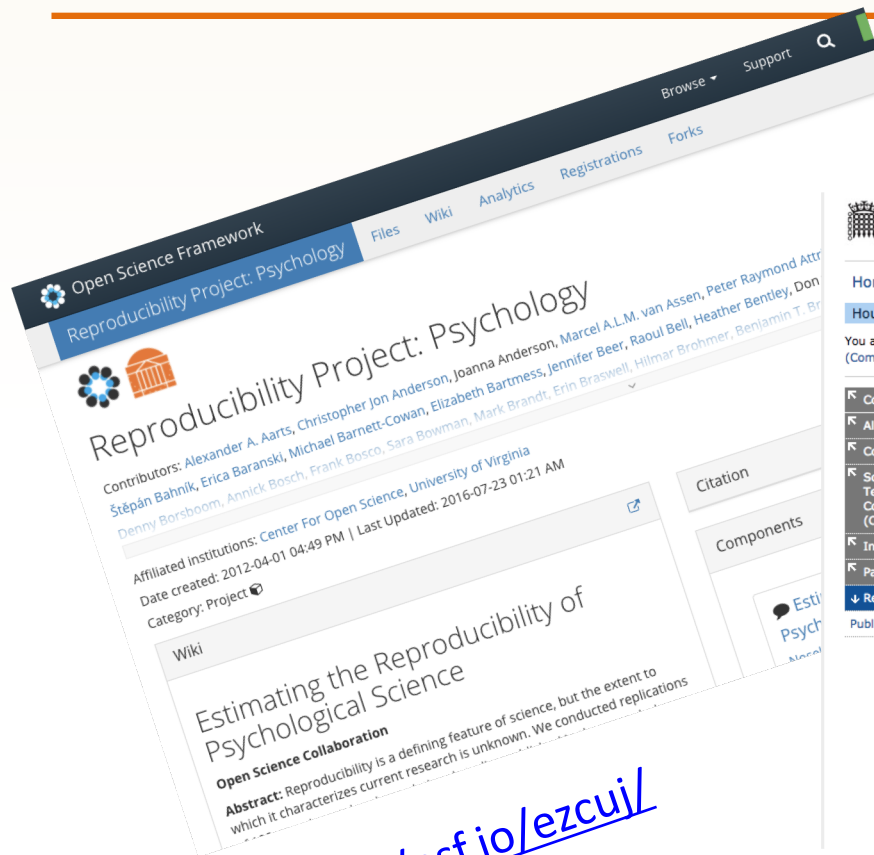
Reproducibility



<https://osf.io/ezcuj/>



Integrity



<https://osf.io/ezcui/>



<https://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/inquiries/parliament-2017/research-integrity-17-19/publications/>



Replicability

Open Science Framework

Reproducibility Project: Psychology

Contributors: Alexander A. Aarts, Christopher Jon Anderson, Joanna Anderson, Marcel A.L.M. van Assen, Peter Raymond Atkinson, Štěpán Bahník, Erica Baranski, Michael Barnett-Cowan, Elizabeth Bartmess, Jennifer Beer, Raul Bell, Heather Bentley, Don Denny Borsboom, Annick Bosch, Frank Bosco, Sara Bowman, Mark Brandt, Erin Braswell, Hilmar Brohmer, Benjamin T. Bruck

Affiliated Institutions: Center For Open Science, University of Virginia

Date created: 2012-04-01 04:49 PM | Last Updated: 2016-07-23 01:21 AM

Category: Project

Wiki

Estimating the Reproducibility of Psychological Science

Open Science Collaboration

Abstract: Reproducibility is a defining feature of science, but the extent to which it characterizes current research is unknown. We conducted a large-scale replication study of psychological science to estimate the reproducibility of research findings.

<https://osf.io/e7>

<http://sites.nationalacademies.org/dbasse/bbcss/reproducibility-and-replicability-in-science/index.htm>

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Science and Technology Committee (Commons)

Research integrity

Inquiry status: **open**

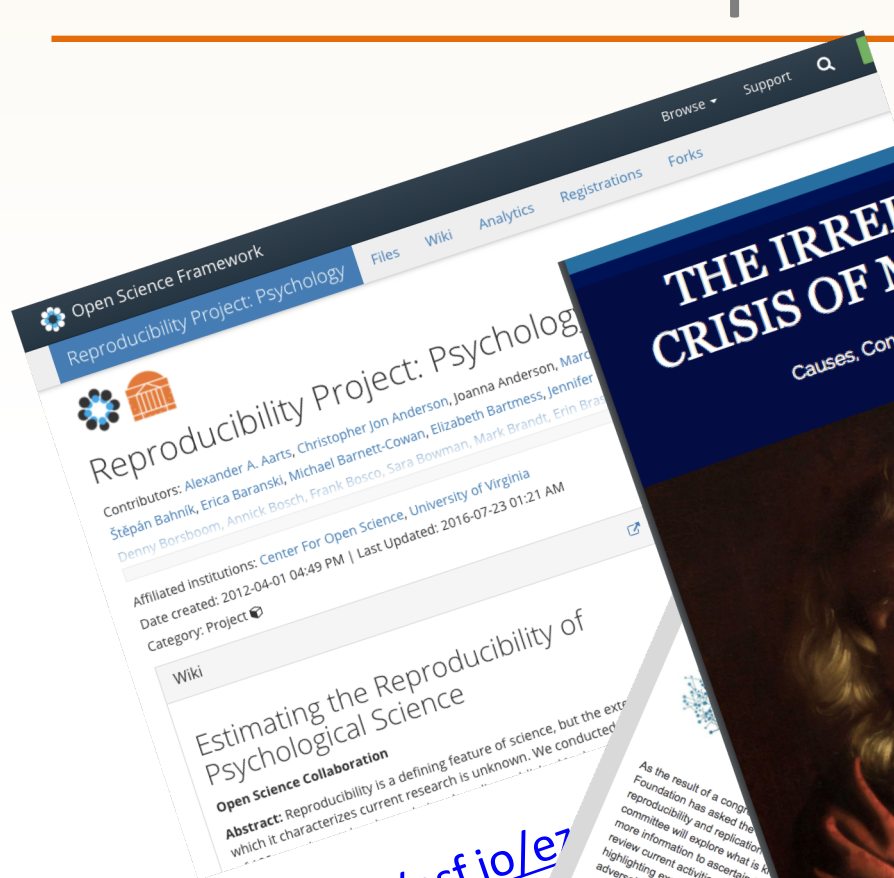
The deadline for written submissions was Thursday 5 October 2017. If you would like to send a late submission please contact Committee staff.

fraud, misconduct
research results.
indicates
Center search terms
Search

<https://committees-a-z.parliament.uk/inquiries/parliament-2017/research-integrity>



Irreproducibility

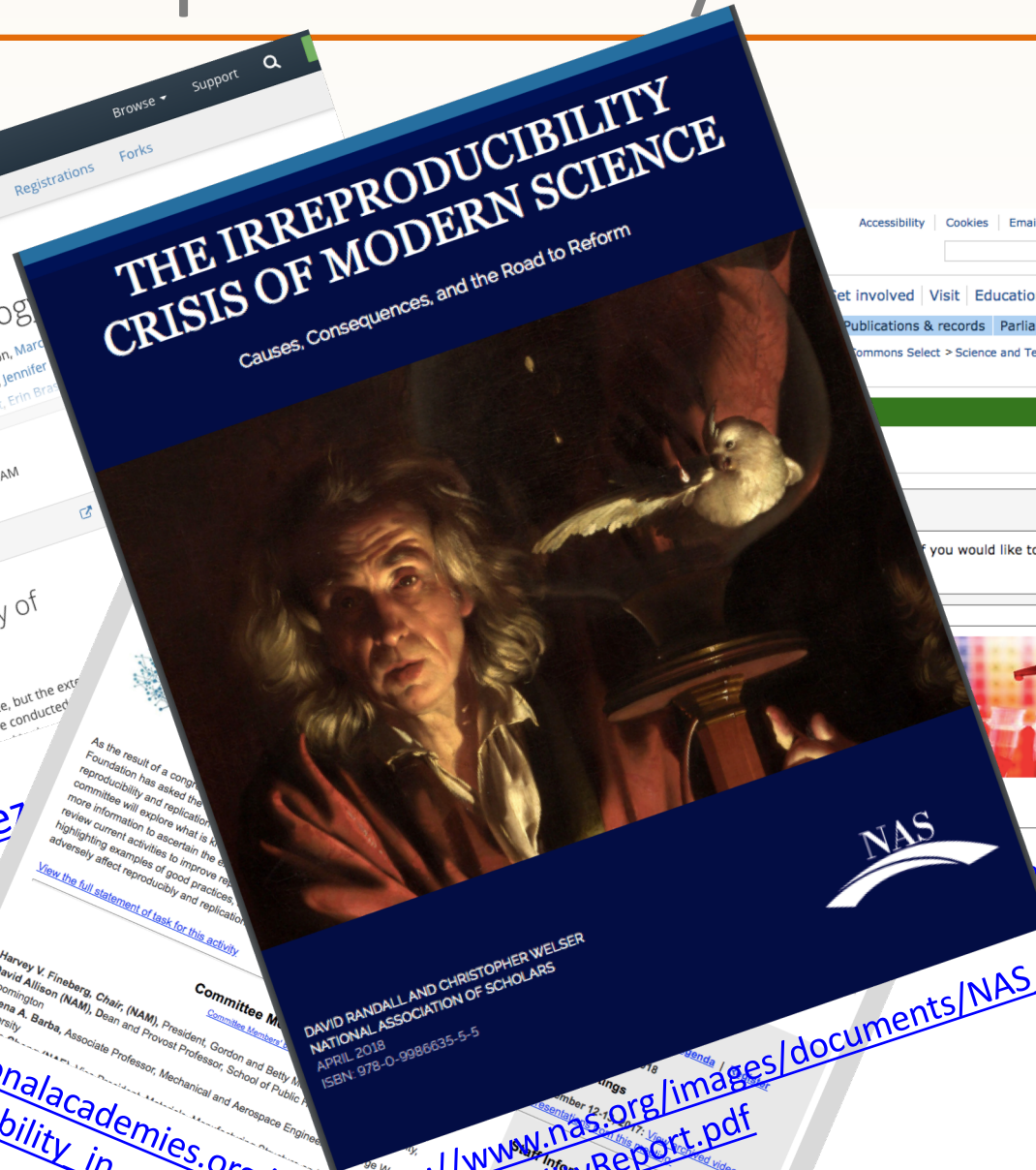


<https://osf.io/e7>

<http://sites.nationalacademies.org/dbasse/reproducibility/index.htm>

https://www.nas.org/images/documents/NAS_Irreproducibility_Report.pdf

<https://www.nas.org/committees-a-committee-on-research-reproducibility-and-replicability>



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If you would like to send a late submission



[Committees-a-committee-on-research-reproducibility-and-replicability](#)



The Solution = Open Research

Distribute dissemination across the research lifecycle and reward it



What do we mean??

> 90 declarations and position statements from around the world

Statement/declaration	Year	link
San Francisco Declaration on Research Assessment	2012	http://www.ascb.org/dora/
Force11 Joint Declaration on Data Citation Principles	2014	https://www.force11.org/datacitation
FAIR data principles	2015	https://www.force11.org/group/fairgroup/fairprinciples
Science International - (draft) Accord on Open Data	2015	http://www.icsu.org/news-centre/news/science-international-to-agree-international-accord-on-open-data
Leiden Manifesto for research metrics	2015	http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351
Science Europe Principles on Open Access publisher services	2015	http://www.scienceeurope.org/uploads/PressReleases/270415_Open_Access_New_Principles.pdf
European open science cloud for research - position paper	2015	http://libereurope.eu/wp-content/uploads/2015/11/OSC_Position_Paper-final-30.10.15.pdf
The Hague declaration on Knowledge Creation in the Digital Age	2015	http://thehaguedeclaration.com/
Principles of the Scholarly Commons	2017	https://www.force11.org/scholarly-commons/principles

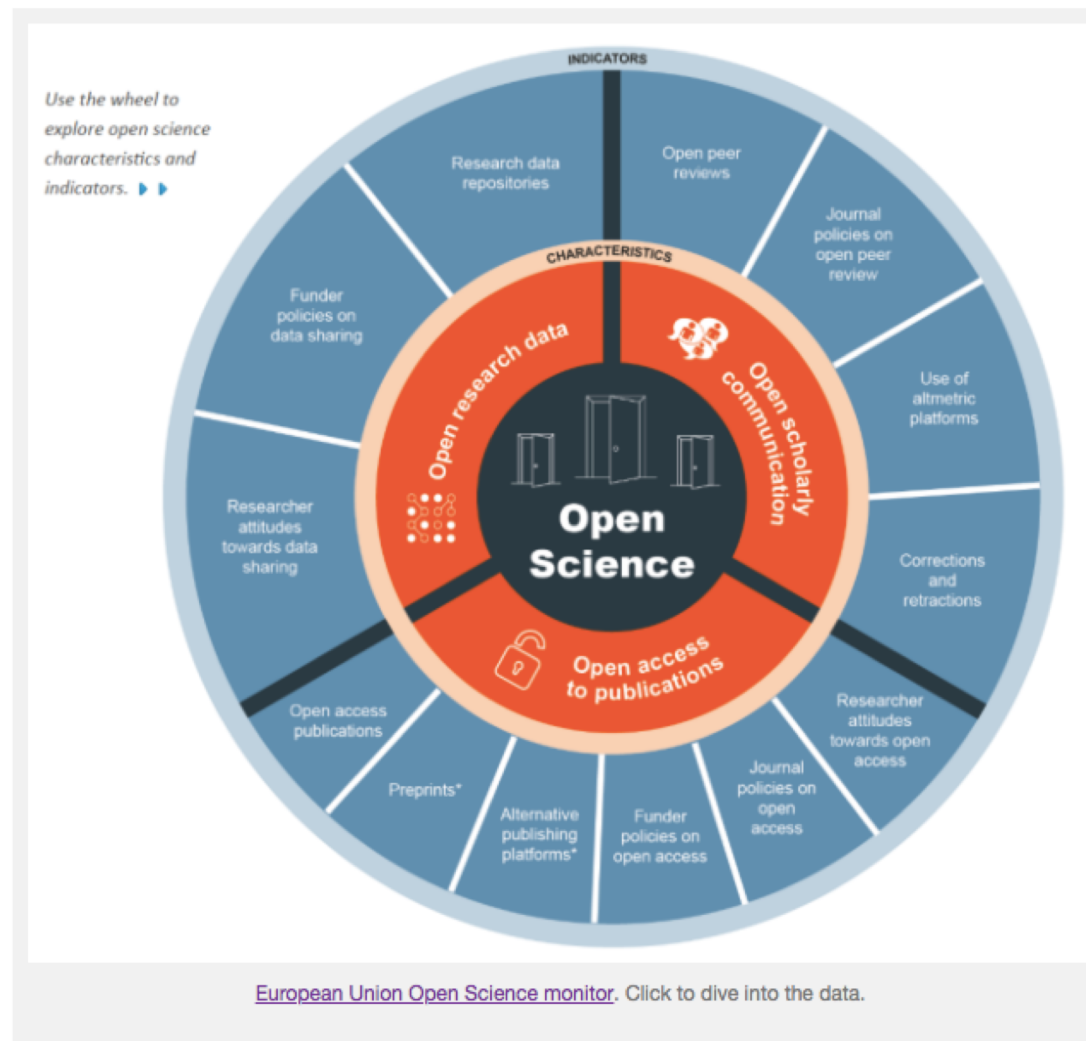
<http://tinyurl.com/scholcomm-charters>

There are so many different definitions of Open Research/Science that now there is an attempt to define the definitions

<https://im2punt0.wordpress.com/2017/03/27/defining-open-science-definitions/>



One of many graphic representations

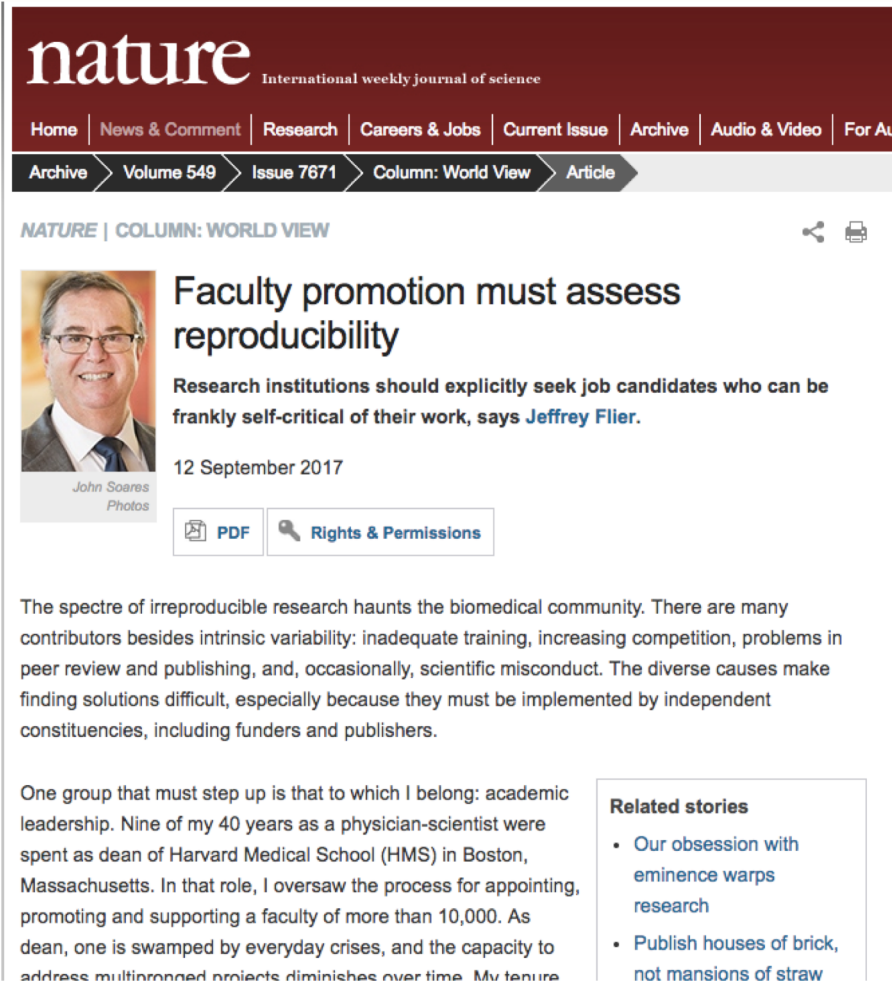


Open Science Monitor - European Commission. 28 March 2017
<http://ec.europa.eu/research/openscience/index.cfm?pg=home§ion=monitor>

We need institutions to play along

- “Improving the quality of research requires change at the institutional level”
 - Smaldino PE, McElreath R. 2016 The natural selection of bad science. R. Soc. open sci.3: 160384.
<http://dx.doi.org/10.1098/rsos.160384>
- “Universities and research institutes should play a major role in supporting an open data culture”
 - Science as an open enterprise The Royal Society Science Policy Centre report 02/12 Issued: June 2012
DES24782 <https://royalsociety.org/~media/policy/projects/sape/2012-06-20-saoe.pdf>

A call to arms – 12 Sept 2017



nature International weekly journal of science

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NATURE | COLUMN: WORLD VIEW

Faculty promotion must assess reproducibility

Research institutions should explicitly seek job candidates who can be frankly self-critical of their work, says **Jeffrey Flier**.

12 September 2017

John Soares Photos

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The spectre of irreproducible research haunts the biomedical community. There are many contributors besides intrinsic variability: inadequate training, increasing competition, problems in peer review and publishing, and, occasionally, scientific misconduct. The diverse causes make finding solutions difficult, especially because they must be implemented by independent constituencies, including funders and publishers.

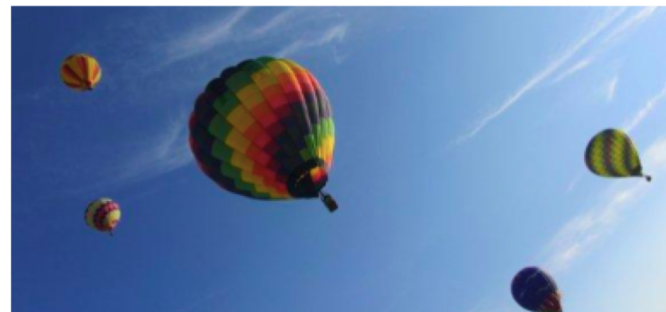
One group that must step up is that to which I belong: academic leadership. Nine of my 40 years as a physician-scientist were spent as dean of Harvard Medical School (HMS) in Boston, Massachusetts. In that role, I oversaw the process for appointing, promoting and supporting a faculty of more than 10,000. As dean, one is swamped by everyday crises, and the capacity to address multipronged projects diminishes over time. My tenure

Related stories

- Our obsession with eminence warps research
- Publish houses of brick, not mansions of straw

- One group that must step up is that to which I belong: academic leadership.
- Academic institutions can and must do better. We should be taking multiple approaches to make science more reliable. One of the most effective (but least discussed) is to **change how we appoint and promote our faculty members**.
- Our processes should encourage evaluators to say whether they feel candidates' work is problematic or overstated, and whether it has been reproduced and broadly accepted.

An institutional perspective - pilot



The Open Research Pilot project

The Open Research Pilot project is a two year experiment where researchers at Cambridge University are trying to work as openly as possible. The project is a collaboration with the Wellcome Trust **Open Research team** and the exchange of experiences and ideas is helping both sides of the collaboration.

The **call for participants** was initially opened in December 2016 and sent to Wellcome Trust funded researchers at Cambridge. We were pleasantly surprised to have several applications and in the end we chose a range of projects and subject areas:

- **Dr Laurent Gatto** –is doing computational biology research, with a special focus on proteomics data. His interest is: *How to effectively share research data and the code needed to reproduce them?*
- **Dr David Savage** – is researching molecular pathogenesis of the consequences of obesity. His question is: *What are the problems with sharing data coming from human participants?*

Search

Recent Posts

Me, Myself and Data – David Marshall

Me, Myself and Data – Keren Limor-Waisber

Me, Myself and Data – Melissa Scarpate

Me, Myself and Data – Kirsten Lamb

Me, Myself and Data – Dr Sudhakaran Prabakaran



https://openadventures-blog.lib.cam.ac.uk/?page_id=12

Investigation

- During 2018 had an Open Research Working Group to investigate what Open Research might mean for the University
 - <https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group>
- Undertook a survey of research community –
 - ~500 responses
 - Generally positive: *"We want our research to benefit the common good. We believe that this is most likely if others are able to reproduce and build upon it without restriction."*
 - Next steps indicate three clear themes

1. Reward and recognition

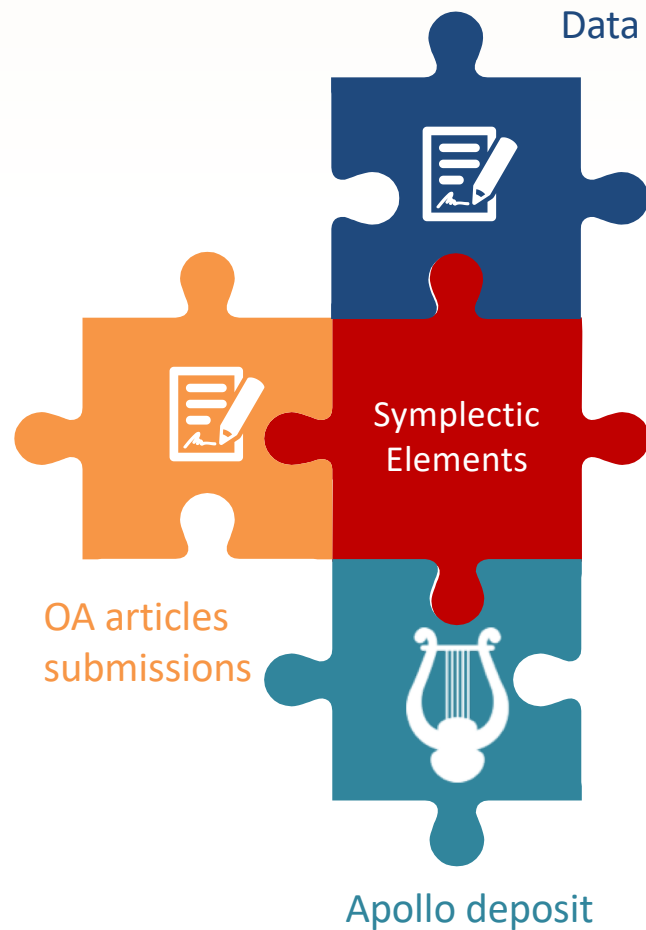
- Many comments about current workload
 - Everyone is overwhelmed and this is 'extra work'
 - What do they 'stop doing'?
 - Why engage if this 'doesn't count'?
- From an individual's perspective the benefits of Open Research are not always obvious
- The disadvantages are clear – this is risky, and while unrewarded potentially offers others a chance to get ahead

2. Training and guidance

- Varied responses about the need for training and/or guidance
 - Clear disinterest in being ‘trained’ on how to use technology or systems
 - Some desire for more conceptual information
 - Responses indicate a level of confusion about what open access and research data management actually mean
 - Training might not be desired but may be needed

3. Infrastructure (in house)

Integrated solution



Benefits

Apollo deposit

Automatic deposit of data and articles in the repository

Enhanced reporting

OA compliance data available from a single source



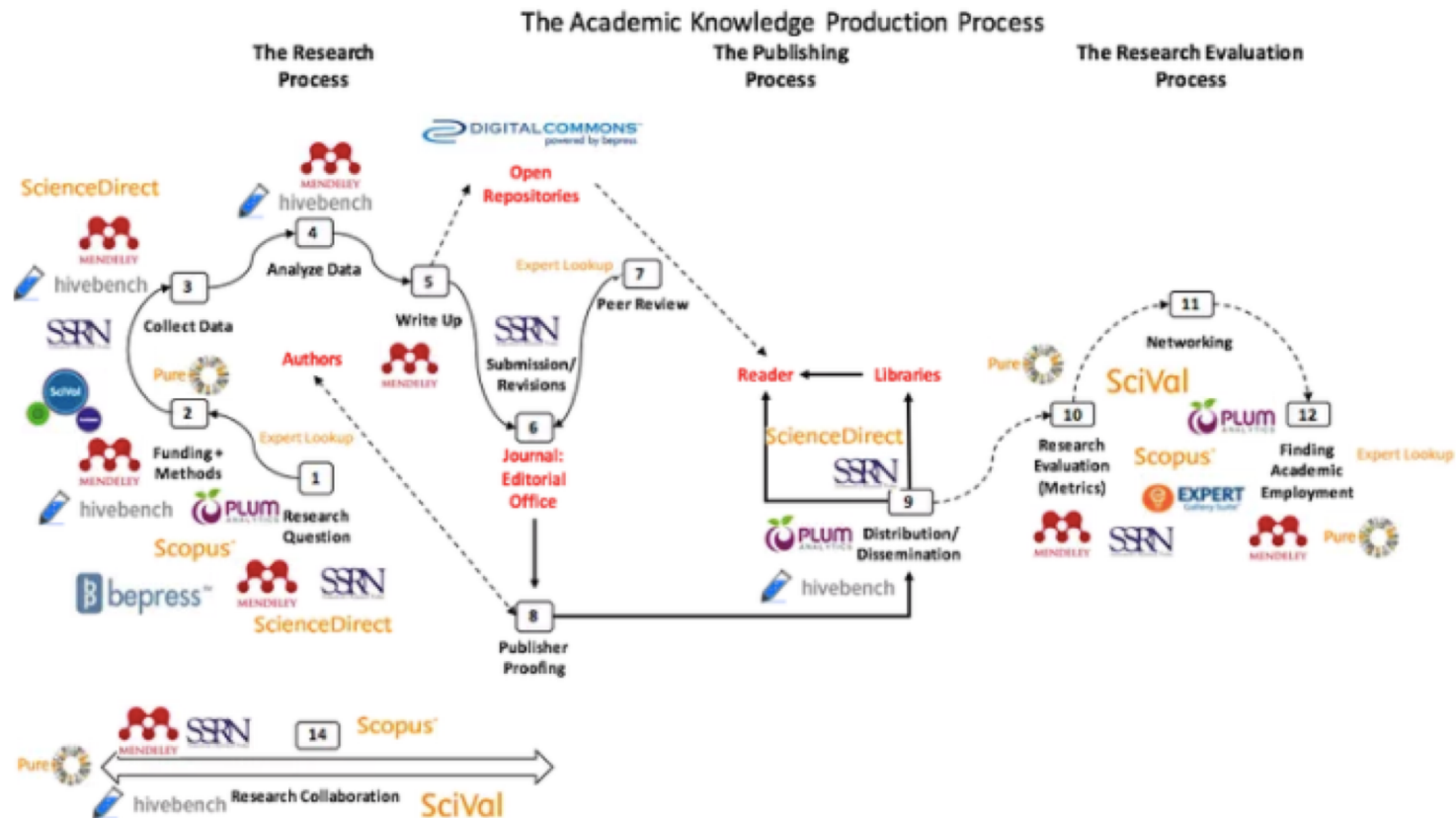
Bonus: ORCID integration

Pre-populate Researchers' ORCID profiles

3. Infrastructure (bigger picture)

- If there is any move to Open Research, we need to ensure the necessary infrastructure is in place
- Infrastructure includes:
 - Institutional wide systems we build and buy (eg: Symplectic and DSpace)
 - International infrastructure we contribute to (eg: arXiv, DuraSpace, SCOAP3)
 - Other?

We need to keep a grip on this situation



Vertical integration resulting from Elsevier's acquisitions, from Alejandro Posada and George Chen, (2017) *Rent Seeking and Financialization strategies of the Academic Publishing Industry - Publishers are increasingly in control of scholarly infrastructure and why we should care- A Case Study of Elsevier*

<http://knowledgegap.org/index.php/sub-projects/rent-seeking-and-financialization-of-the-academic-publishing-industry/preliminary-findings/>

Questions/Discussion

Thanks!

Dr Danny Kingsley

Head of Scholarly Communication

University of Cambridge

@dannykay68

