

And you thought you were up on all of this

PLOS – San Francisco
15 October 2018

Slides available:

<https://www.repository.cam.ac.uk/handle/1810/283634>

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Cambridge University Libraries
@dannykay68



Strap yourselves in!

- Starting with some history
- What is the current state of open access?
- What about the bigger landscape
- Consider the political situation
- The new open narrative
- The challenges of implementing Open Research

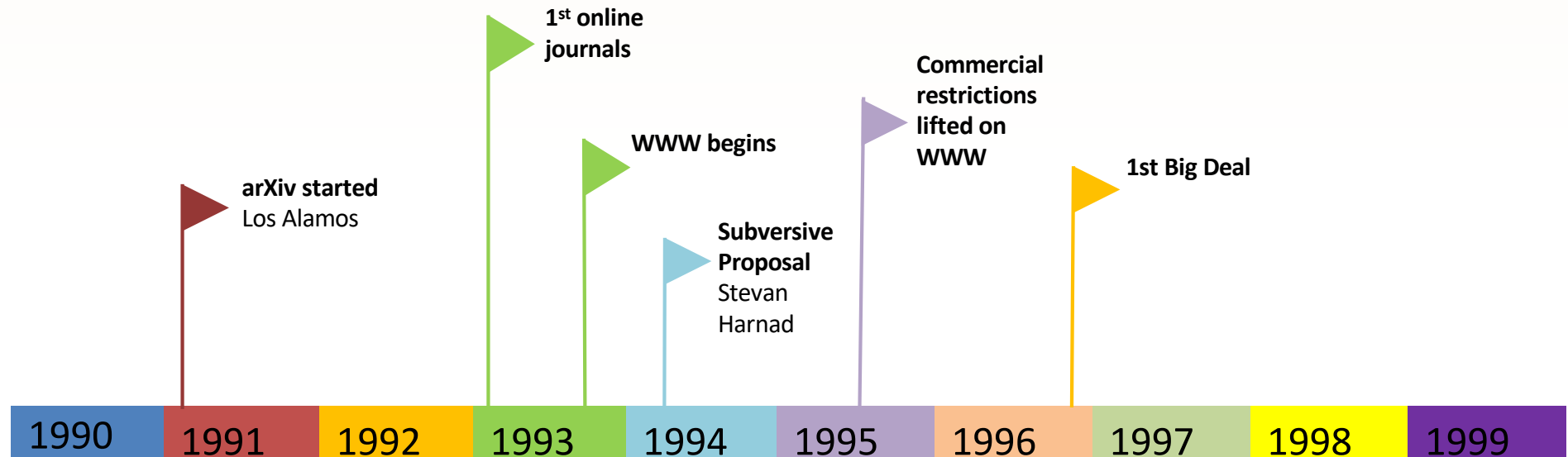
This is what is used to be about



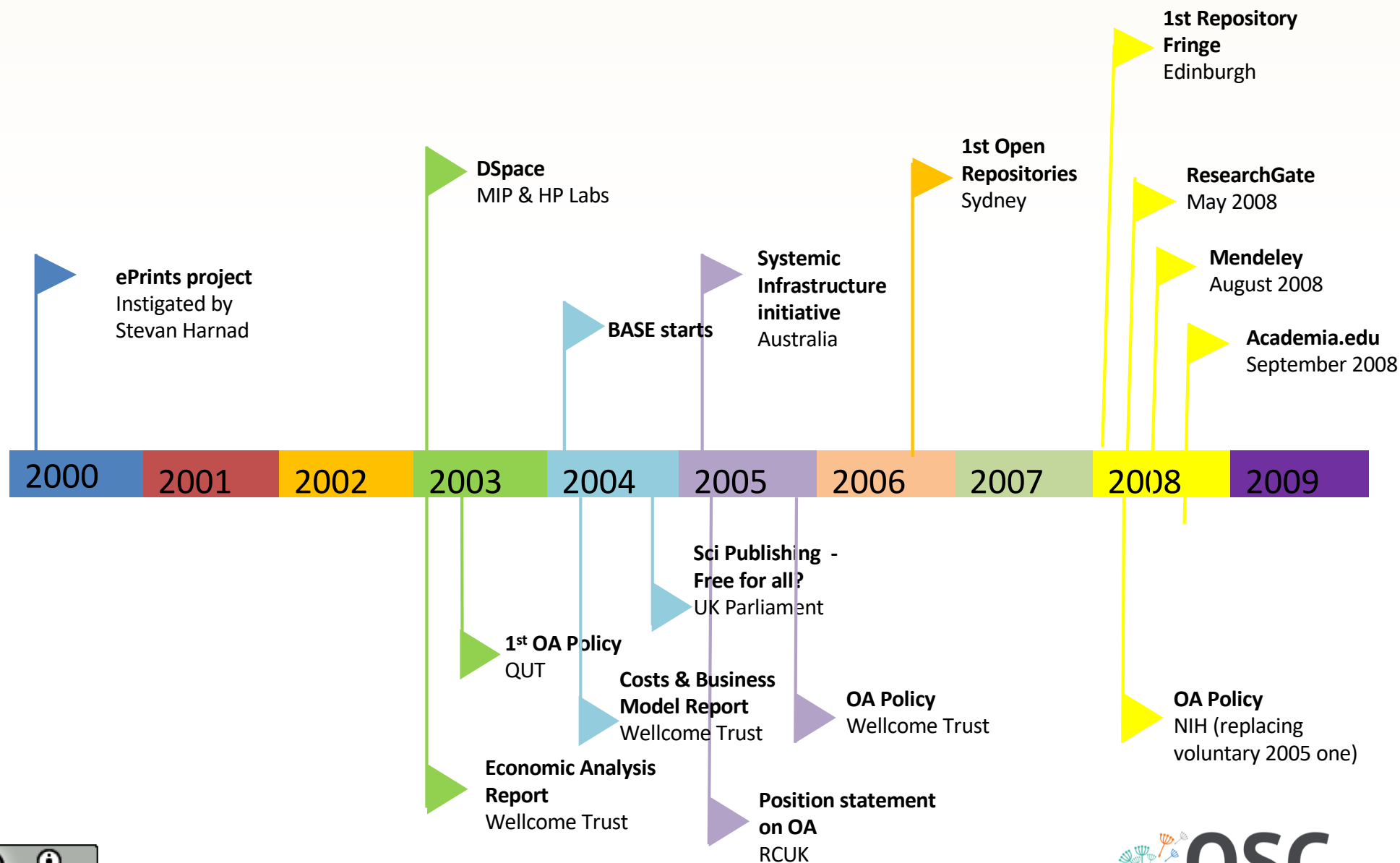
https://aoasg.files.wordpress.com/2013/02/benefitsofopenaccess_cc-by_logo.pdf



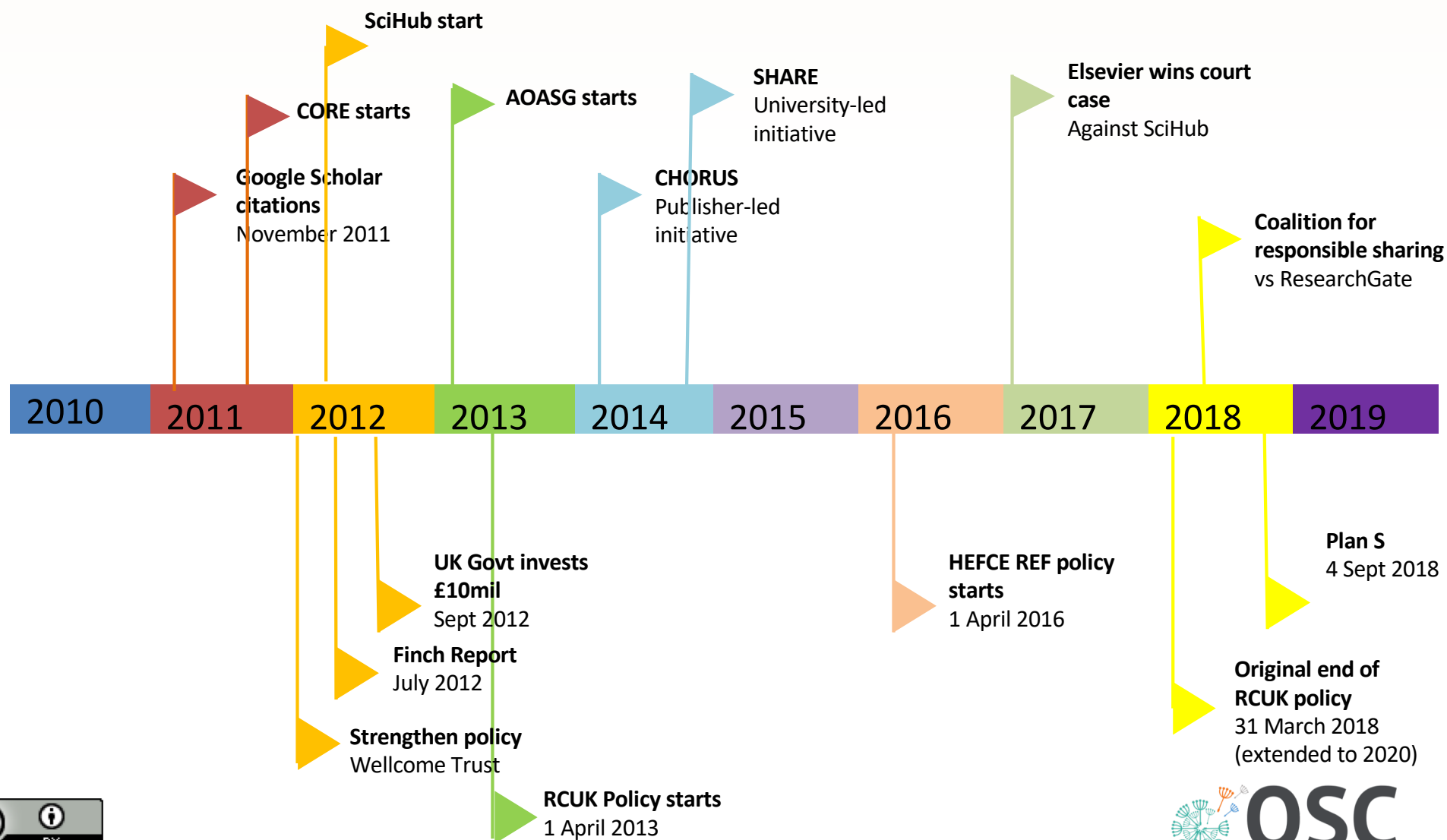
It begins



The noughties



The teens



The current state of open access

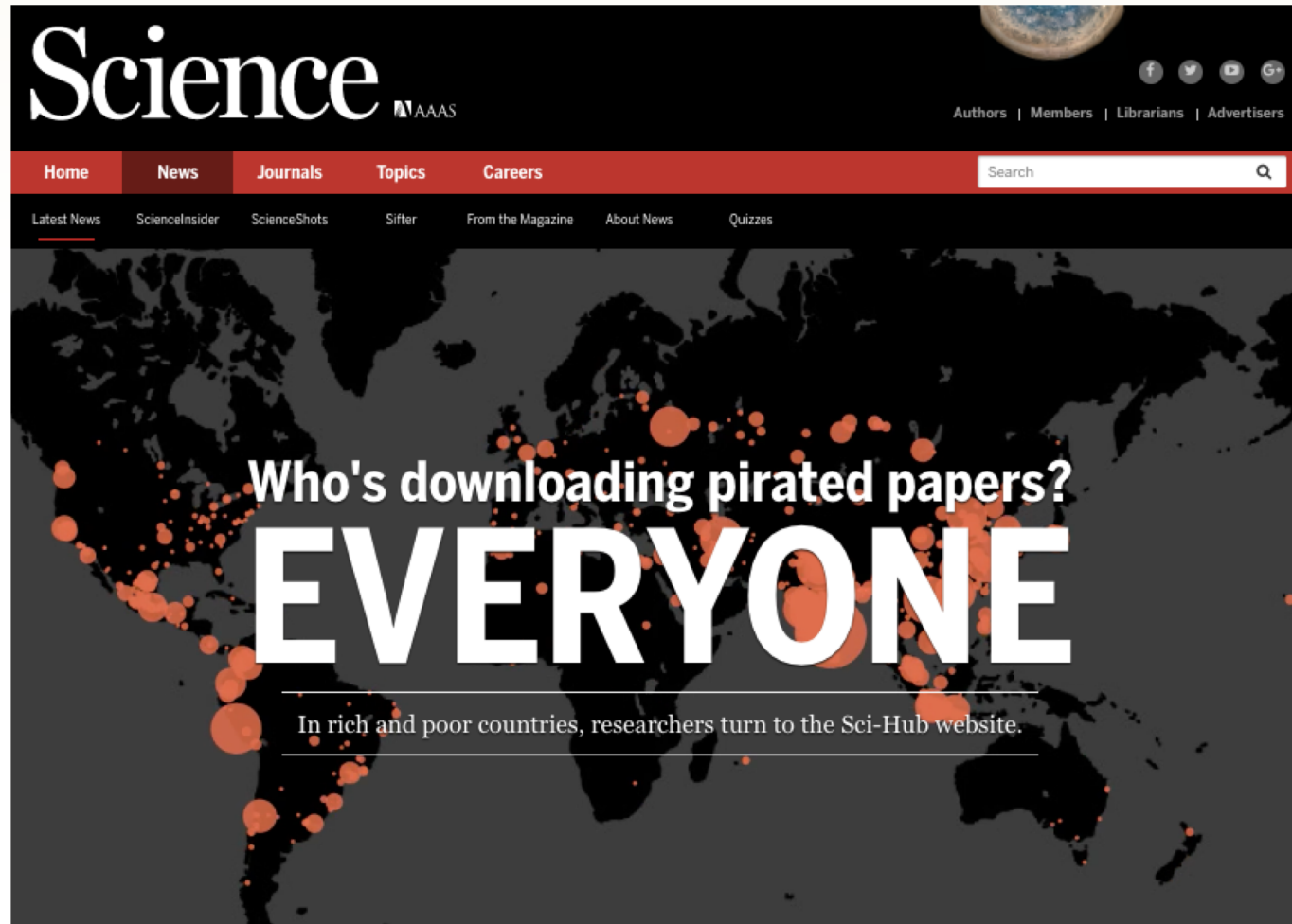


Things are lining up



Images by Danny Kingsley

Who does this threaten?

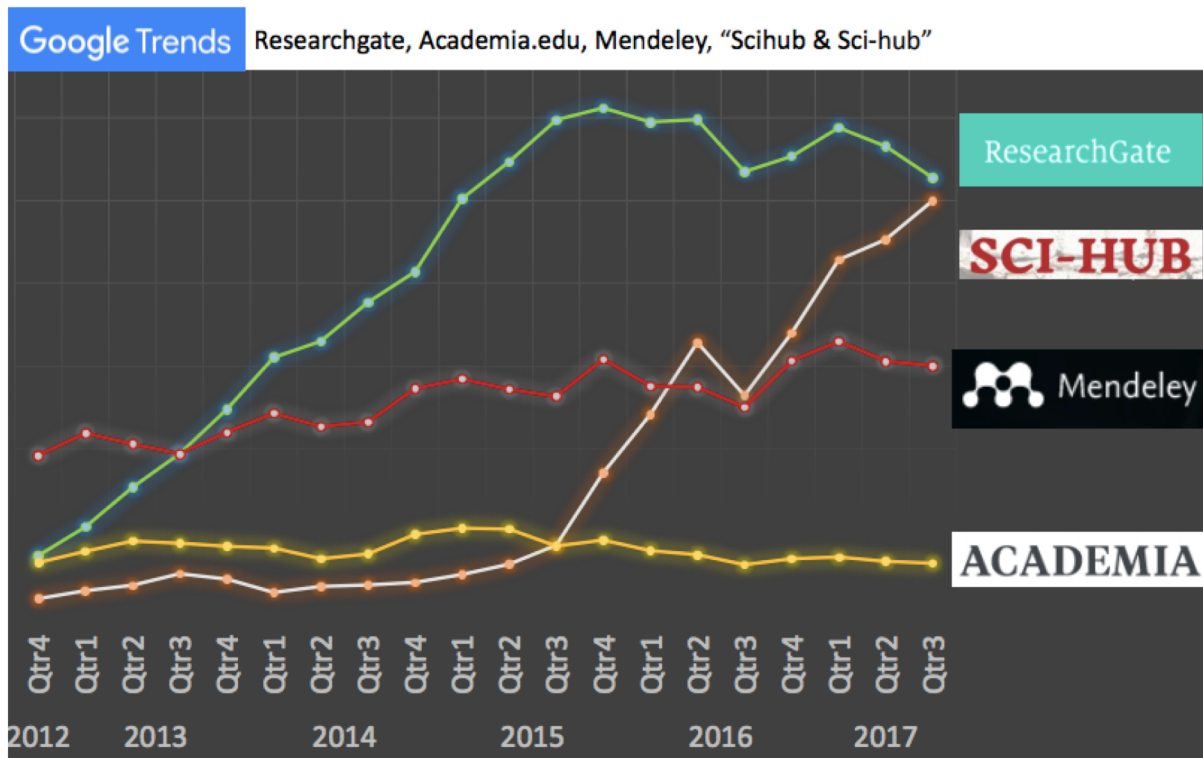


John Bohannon, “Who's downloading pirated papers? Everyone”, Science, Apr. 28, 2016
<http://www.sciencemag.org/news/2016/04/whos-downloading-pirated-papers-everyone>



Publishers are very concerned

Researcher uptake of 3 SCN platforms (and a fourth platform)



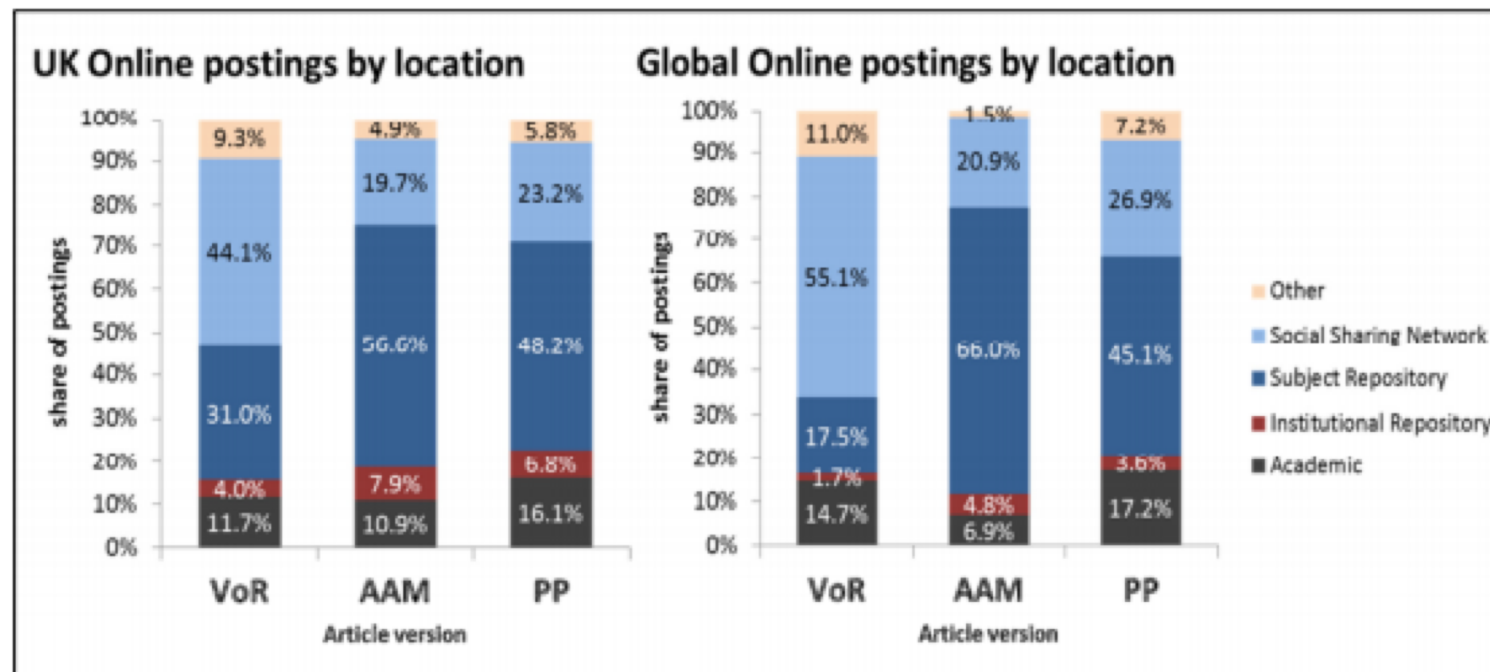
STM The global voice of scholarly publishing

5

https://www.stm-assoc.org/2017_10_10_Frankfurt_Conference_Wouter_Haak_STM_Presentation.pdf

Some perspective

Figure 9. Location of online postings (including illicit postings)



Monitoring the Transition to Open Access 2015

<https://www.acu.ac.uk/research-information-network/monitoring-transition-to-open-access>

Fighting back

- October 2017, Elsevier and the American Chemical Society filed a lawsuit in Germany against ResearchGate, alleging copyright infringement on a mass scale.
- November 2017, ResearchGate restricted access to 1.7 million papers on their site.
- April 2018 - the court case began in Germany with the intention to: “establish clarity on the legal responsibility of ResearchGate regarding copyright infringements”.
- October 2018 – Elsevier and ACS instigate proceedings in US



“The Coalition for Responsible Sharing aims to prevent the illicit hosting of millions of subscription articles on the commercial ResearchGate site”

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



Damages?



The screenshot shows the top of a Nature news article. The header includes the 'nature' logo and navigation links. The article title is 'US court grants Elsevier millions in damages from Sci-Hub'. Below the title is a sub-headline: 'Some doubt that the publishing giant will see any money from the pirate site.' The author is 'Quirin Schiermeier' and the date is '22 June 2017'. There is a 'Rights & Permissions' button. The main text starts with 'One of the world's largest science publishers, Elsevier, won a default legal judgement on 21 June against websites that provide illicit access to tens of millions of research papers and books. A New York district court awarded Elsevier US\$15 million in damages for copyright infringement by Sci-Hub, the Library of Genesis (LibGen) project and related sites.' A photo of a woman speaking at a microphone is on the right.

nature International weekly journal of science

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News & Comment | News | 2018 | June | Article

NATURE | NEWS

US court grants Elsevier millions in damages from Sci-Hub

Some doubt that the publishing giant will see any money from the pirate site.

Quirin Schiermeier

22 June 2017

 **Rights & Permissions**

One of the world's largest science publishers, Elsevier, won a default legal judgement on 21 June against websites that provide illicit access to tens of millions of research papers and books. A New York district court awarded Elsevier US\$15 million in damages for copyright infringement by Sci-Hub, the Library of Genesis (LibGen) project and related sites.

Judge Robert Sweet had ruled in October 2015 that the sites violate US copyright. The court issued a preliminary injunction against the sites'



<https://www.nature.com/news/us-court-grants-elsevier-millions-in-damages-from-sci-hub-1.22196>



Advice from VSNU

12 March 2018, the Dutch consortium VSNU announced that “Dutch universities and Royal Society of Chemistry Publishing (RSC) have been unable to reach a new agreement on access to scientific journals”.

HOW TO GET THE PDF?

Alternatives to the publisher version of
full-text journal articles

12

SCI-HUB

If all else fails, you may be tempted to use Sci-Hub. Do realize, however, that in many countries, including The Netherlands, the use of Sci-Hub is considered as an illegal act, as it involves content protected by copyright laws and licensing contracts.



http://www.openaccess.nl/sites/www.openaccess.nl/files/documenten/howtogettothepdf_march_2018.pdf



OSC
Office of Scholarly Communication

Let's take a look at the wider landscape



Image by Danny Kingsley

2018



Home > All Solutions > Mendeley Data platform > For institutions

New in 2018

Mendeley Data: comprehensive research data management for institutions

Data management is about more than just compliance: there are clear benefits to be derived from effective solutions. These include:

- **Improved quantity and quality of research output**
The pace of research increases and the credibility of papers improves when the underlying research data are made available for evaluation.
- **Increased research exposure and impact**
When research data is readily available, article exposure and impact both increase, leading to more views, shares, mentions and citations.
- **Increased collaboration**
Shared data is an excellent starting point for further collaboration, as researchers can more easily see how

<https://www.elsevier.com/solutions/mendeley-data-platform/for-institutions>

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Research Data Support

Submitting to Research Data Support

Who can use Research Data Support

Pricing for Research Data Support

Benefits of Research Data Support

Help & FAQs

Research Data Policies

Data policy types

Data availability statements

Research Data Support

Organise and share your data faster

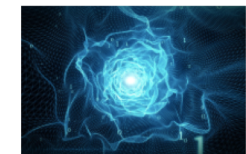
Research Data Support is an optional Springer Nature service available to researchers who have datasets they want to make easier to cite, share and find.



Submit



Benefits



Help & FAQs

<https://www.springernature.com/gp/authors/research-data-policy/> - £265 per dataset



DataSearch ^{Beta}

Take a tour

Search for research data across domains and types, from many domain-specific, cross-domain and institutional data repositories.

Find research data

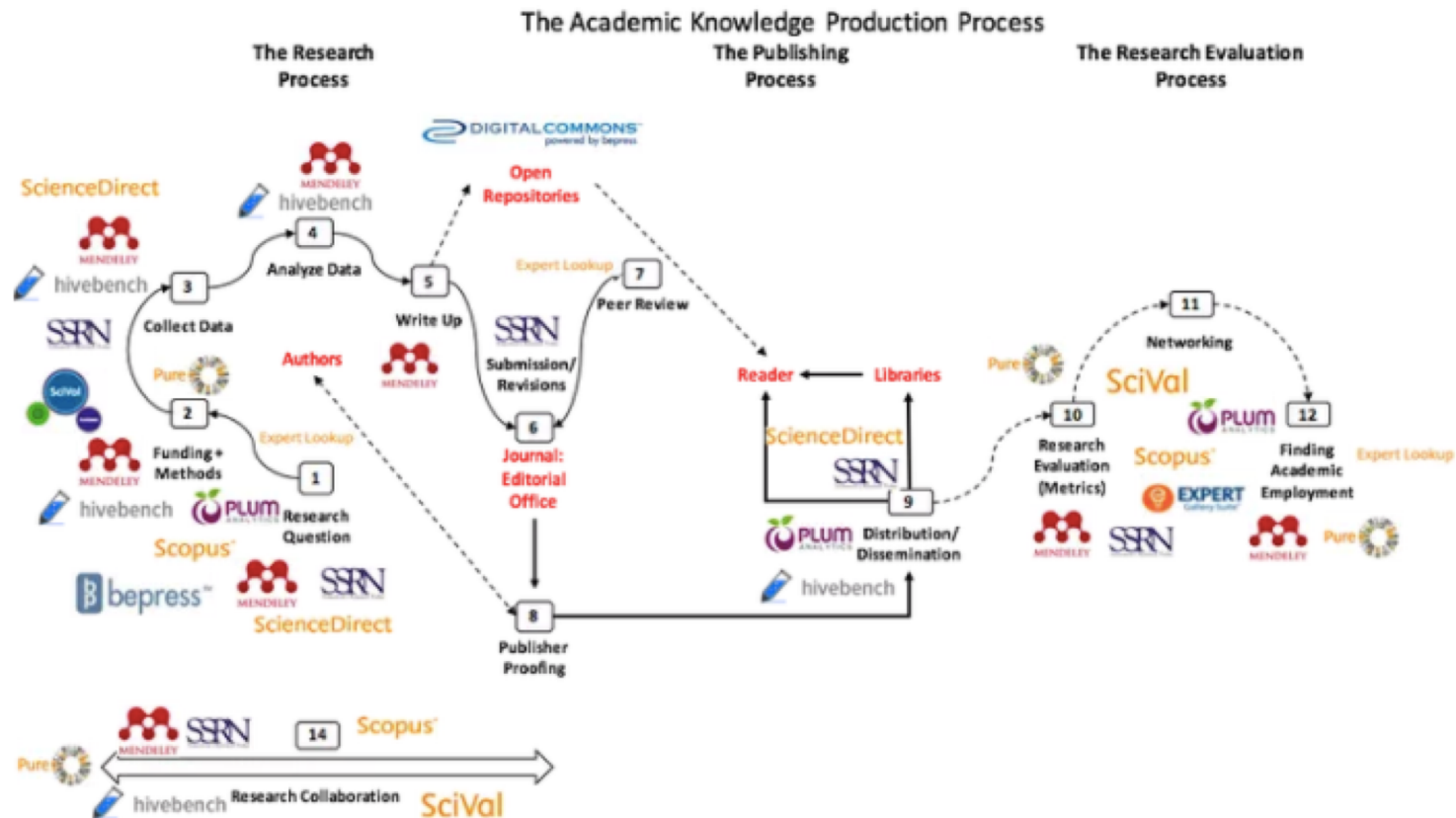
Or Try: [chip-seq drosophila](#), [late quaternary sediment core](#) or [q](#)

Which repositories are indexed?

We have completely or partially indexed the following:

- Dryad
- EarthChem Portal from The Interdisciplinary Earth Data Alliance (IEDA) :
 - Geochemistry of Rocks of the Oceans and Continents (GEOROC)
 - MetPetDB
 - The North American Volcanic and Intrusive Rock Database (NAVDAT)
 - PetDB
 - U.S. Geological Survey (USGS) Mineral Resources National Geochemical Database (MR NGDB)
- Harvard Dataverse
- The Inter-university Consortium for Political and Social Research (ICPSR)
- Mendeley Data
- NeuroElectro
- PANGAEA
- ThermoML - Thermodynamic Research Center (TRC) at the National Institute of Standards and Technology (NIST)
- Metadata from:
 - 4TU.Centre of Research Data
 - Apollo - University of Cambridge
 - DataSpace - Princeton University
 - DSpace - University of Washington
 - LSHTM Data Compass - London School of Hygiene & Tropical Medicine
 - Médecins Sans Frontières (MSF)
 - Smithsonian
 - Zenodo

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/>

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Open access scientific publishing

Political science

Jon Tennant
Jon Tennant is a paleontologist and open science activist

Fri 29 Jun 2018 16:00 BST

1,840

Elsevier are corrupting open science in Europe

Elsevier - one of the largest and most notorious scholarly publishers - are monitoring Open Science in the EU on behalf of the European Commission. **Jon Tennant** argues that they cannot be trusted.



<https://www.theguardian.com/science/political-science/2018/jun/29/elsevier-are-corrupting-open-science-in-europe>



Danny Kingsley @dannykay68 · Oct 3

OPPORTUNITY: to comment on the response by Directorate-General of Research and Innovation, Jean-Eric Paquet to a complaint regarding Elsevier and their role in the European Commission's Open Science Monitor. Can be annotated using Hypothes.is: docdrop.org/pdf/Annex-to-1...

<https://docdrop.org/pdf/Annex-to-letter-to-Jon-Tennant-1--BbPfR.pdf/>



Woah! Let's take a step back for a sec



Robert K Merton, “The Normative Structure of Science”, 1942 essay in
The Sociology of Science edited by Norman W Storer, published 1973
http://www.collier.sts.vt.edu/5424/pdfs/merton_1973.pdf



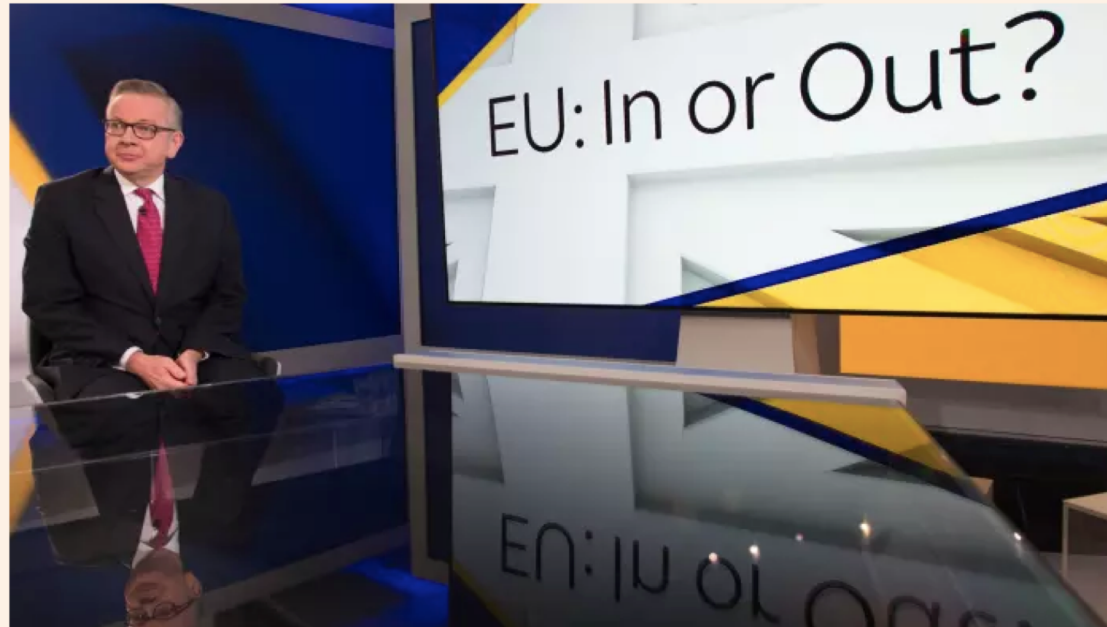
We have to be above criticism

- “Incipient and actual attacks upon the integrity of science have led scientists to recognize their dependence on particular types of social structure. Manifestos and pronouncements by associations of scientists are devoted to the relations of science and society. An institution under attack must re-examine its foundations, restate its objectives, seek out its rationale. Crisis invites self-appraisal. Now that they have been confronted with challenges to their way of life, scientists have been jarred into a state of acute self-consciousness: consciousness of self as an integral element of society with corresponding obligations and interests.”

During the Brexit discussion

Britain has had enough of experts, says Gove

Brexit campaigner offers to have disputed EU contribution figure audited



Justice Secretary Michael Gove takes part in a live Sky News Q&A on Brexit © PA

Henry Mance, Political correspondent JUNE 3, 2016

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<https://www.ft.com/content/3be49734-29cb-11e6-83e4-abc22d5d108c>



Who is the expert?

OP-ED CONTRIBUTORS

Scott Pruitt's Attack on Science Would Paralyze the E.P.A.

By Gina McCarthy and Janet G. McCabe

March 26, 2018



Scott Pruitt, administrator of the Environmental Protection Agency, has announced that he will bar the use of some scientific studies. Tom Brenner/The New York Times

“Scott Pruitt, the administrator of the Environmental Protection Agency, has announced that **he alone will decide what is and isn't acceptable science** for the agency to use when developing policies that affect your health and the environment.”

Mr Pruitt is a lawyer.

<https://www.nytimes.com/2018/03/26/opinion/pruitt-attack-science-epa.html>



The credibility of science is under threat

- “Speaking as a scientist, cherrypicking evidence is unacceptable,” Hawking said. “When public figures abuse scientific argument, citing some studies but suppressing others, to justify policies that they want to implement for other reasons, it debases scientific culture.”
- <https://www.theguardian.com/science/2018/mar/14/i-would-not-have-survived-nhs-enabled-stephen-hawking-to-live-long-life>

This is our new reality



<https://thenorwichradical.com/2017/01/12/post-truth-politics-and-the-war-on-intellect/>

A new narrative



If studies cannot be replicated then this brings the whole credibility of the scientific endeavour into question.

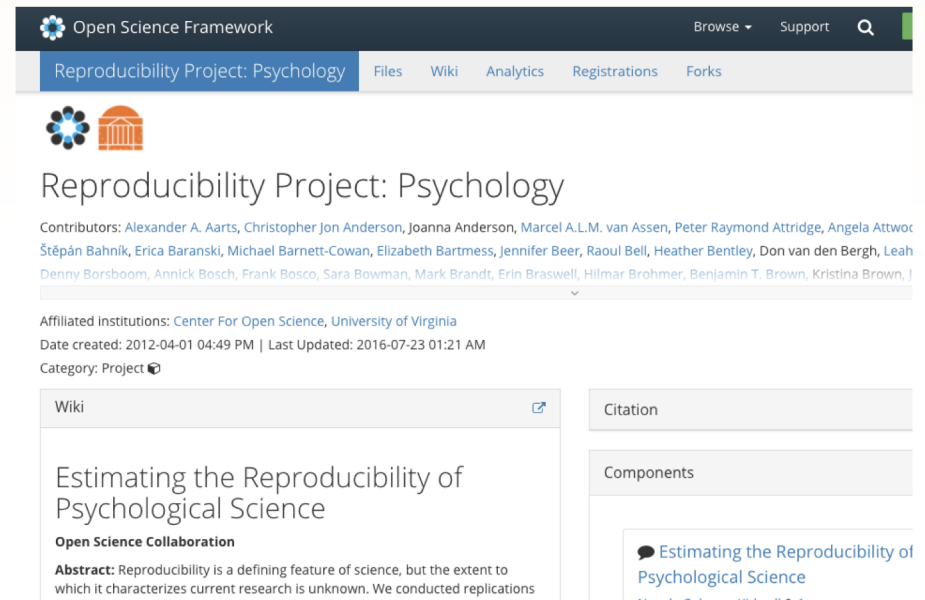


Image by Danny Kingsley

Reproducibility project

Conducted replications of 100 experimental and correlational studies published in three psychology journals using high-powered designs and original materials when available.

- Replication effects = half the magnitude of original effects (substantial decline)
- 97% of original studies had significant results
- 36% of replications had significant results



The screenshot shows the OSF interface for the 'Reproducibility Project: Psychology'. The header includes the OSF logo and navigation links like 'Browse', 'Support', and 'Wiki'. The project title is prominently displayed, followed by a list of contributors and affiliated institutions. A 'Wiki' tab is selected, showing the project's abstract: 'Reproducibility is a defining feature of science, but the extent to which it characterizes current research is unknown. We conducted replications...'. Other tabs like 'Citation' and 'Components' are also visible.


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



UK Government Science & Technology Committee

- UK Research Integrity Enquiry
 - “looks at trends and developments in fraud, misconduct and mistakes in research and the publication of research results.”
 - Oral Evidence session 6 March 2018

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

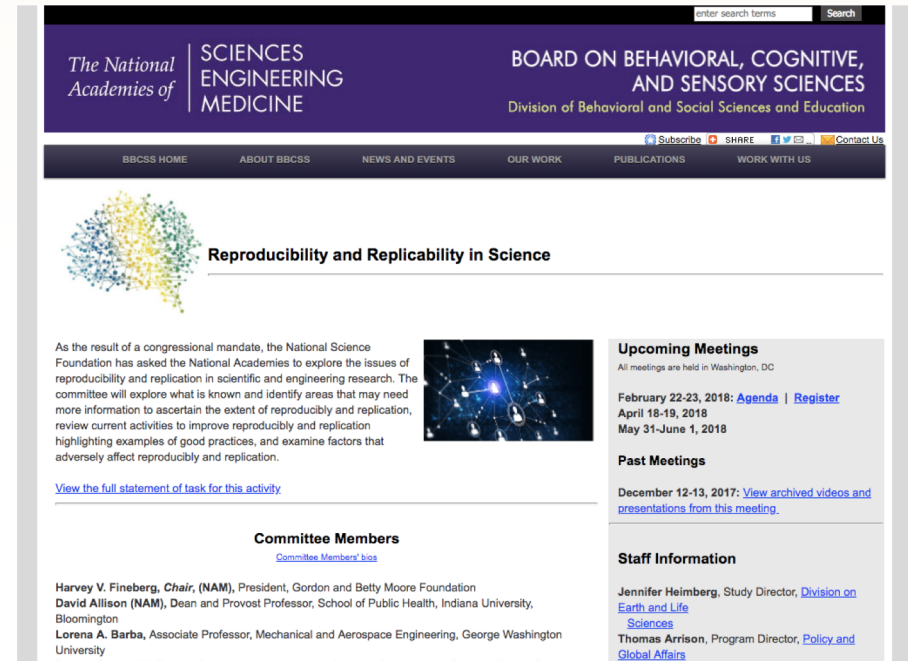


The screenshot shows the official website of the UK Parliament, specifically the Science and Technology Committee (Commons) page for Research integrity. The page layout includes a top navigation bar with links for Accessibility, Cookies, Email alerts, RSS feeds, and Contact us. Below this is a search bar and a main navigation menu with links for Home, Parliamentary business, MPs, Lords & offices, About Parliament, Get involved, Visit, Education, and Shop. A secondary menu lists various parliamentary functions like House of Commons, House of Lords, What's on, Bills & legislation, Committees, Publications & records, Parliament TV, News, and Topics. A breadcrumb trail indicates the current location: You are here: Parliament home page > Parliamentary business > Committees > All committees A-Z > Commons Select > Science and Technology Committee (Commons) > Inquiries > Parliament 2017 > Research integrity. The left sidebar contains a list of committees and inquiries, with 'Research integrity' highlighted. The main content area features a green header for the 'Science and Technology Committee (Commons)' and a section titled 'Research integrity'. This section includes an 'Inquiry status: open' box with a deadline for written submissions of Thursday 5 October 2017. Below this is a 'Scope of the inquiry' section with text explaining the inquiry's focus on fraud, misconduct, and mistakes in research, and a link to the 'Terms of reference: Research integrity'. An image of laboratory glassware is also present.

Early days in US

- Committee on Reproducibility and Replicability in Science with the National Academies of Science
- First meeting Dec 2017 – meetings each second month.

http://sites.nationalacademies.org/dbasse/bbcss/reproducibility_and_replicability_in_science/index.htm



We are in a state of flux



Image: Flickr fotologic Don't Panic CC-BY

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> Open Access Policy

> REF 2021 Open Access Policy

Home > Funding > Information for award holders > Open access

Open access

'Open access' aims to make the findings of publicly-funded research freely available online as soon as possible, in ways that will maximise re-use. This is central to UKRI's ambitions for research and innovation in the UK, as sharing new knowledge has benefits for researchers, the wider higher education sector, businesses and others.

A statement that sets out UKRI's [high level policy and principles on open access](#), common to both the former HEFCE and Research Council policies, is available. This will inform the development of UKRI's policy in this area, including a review of open access.

In the interim period, the UK Funding Bodies' open access policy for the second Research Excellence Framework (REF 2021) will apply as it stands. Any UKRI policy changes will only apply to the REF after REF 2021. [Further information on the REF open access policy](#) is available.

RCUK Policy on Open Access will continue to apply to Research Council-supported research until the outcome of the UKRI review of open access is known. Funding for the research council open access block grants is confirmed up to 2019/20. Further information on the [research council policy and block grants](#) is available.



Funding

What we do

About us

News

<https://www.ukri.org/funding/information-for-award-holders/open-access/>

Wellcome is going to review its open access policy



News / Published: 5 March 2018

Data sharing, Open access

We're going to do the first full review of our open access policy. Robert Kiley, Head of Open Research, explains the motivation behind the review, and how and when it will happen.

In 2005 – so before Twitter had even launched and Myspace was the main

<https://wellcome.ac.uk/news/wellcome-going-review-its-open-access-policy>



Fightback

Plan S

Accelerating the transition to full and immediate Open Access to scientific publications

The key principle is as follows:

"After 1 January 2020 scientific publications on the results from research funded by public grants provided by national and European research councils and funding bodies, must be published in compliant Open Access Journals or on compliant Open Access Platforms."

IN ADDITION:

- Authors retain copyright of their publication with no restrictions. All publications must be published under an open license, preferably the Creative Commons Attribution Licence CC BY. In all cases, the license applied should fulfil the requirements defined by the Berlin Declaration;
- The Funders will ensure jointly the establishment of robust criteria and requirements for the services that compliant high quality Open Access journals and Open Access platforms must provide:
- When Open Access publication fees are applied, their funding is standardised and capped (across Europe);
- The Funders will ask universities, research organisations, and libraries to align their policies and strategies, notably to ensure transparency;
- The above principles shall apply to all types of scholarly publications, but it is understood that the timeline to achieve Open Access for monographs and



<https://www.scienceeurope.org/wp-content/uploads/2018/09/cOAlitionS.pdf>

Mixed response from researchers



<https://forbetterscience.com/2018/09/11/response-to-plan-s-from-academic-researchers-unethical-too-risky/>



Joint Statement on Open Access for Researchers via Plan S

[Plan S](#) calls for all scientific publications on the results of research funded by national and European research councils and funding bodies to be published in compliant [Open Access](#) journals or on compliant Open Access platforms by 01 January 2020. The plan was initiated by the Open Access Envoy of the European Commission and Science Europe and will be implemented by cOAlition S. The coalition currently includes [11 national funders](#) and is supported by the European Commission and European Research Council. Plan S consists of [10 principles](#) to be enacted by coalition members. We, representatives of early-career and senior researchers in Europe, commend cOAlition S for taking this bold and ambitious step towards Open Access and offer our support as well as comments on implementing Plan S.

<http://eurodoc.net/joint-statement-plan-s.pdf>



The challenges of implementing Open Science

Image by Danny Kingsley



1990 - Sound familiar?

The potential effects of this rapid global interactiveness on scholarly inquiry are, in my opinion, nothing short of revolutionary, but why has the revolution not begun ... ? There are obstacles:

- (1) Old ways of thinking about scientific communication and publication ...
- (2) The computer is not yet quite friendly enough to have won over the majority of scholars; ...
- (3) the current intellectual level of discussion on electronic networks is anything but inspiring. And ... prima facie worries about:
- (4) Plagiarism
- (5) Copyright
- (6) academic credit and advancement
- (7) junk mail and
- (8) security.



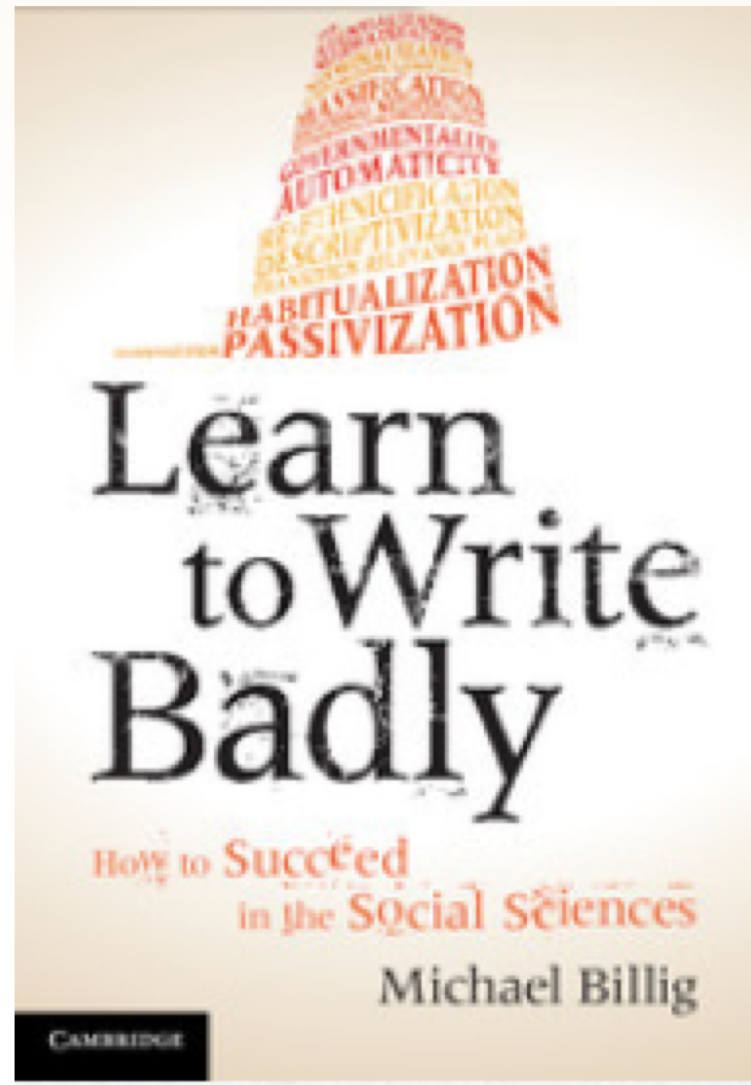
Author/Copyright holder: ajmesico. Copyright terms and license: CC BY 2.0

Harnad, S. (1990) Scholarly Skywriting and the Prepublication Continuum of Scientific Inquiry. *Psychological Science* 1: 342 - 343

<http://cogprints.org/1581/1/harnad90.skywriting.html>



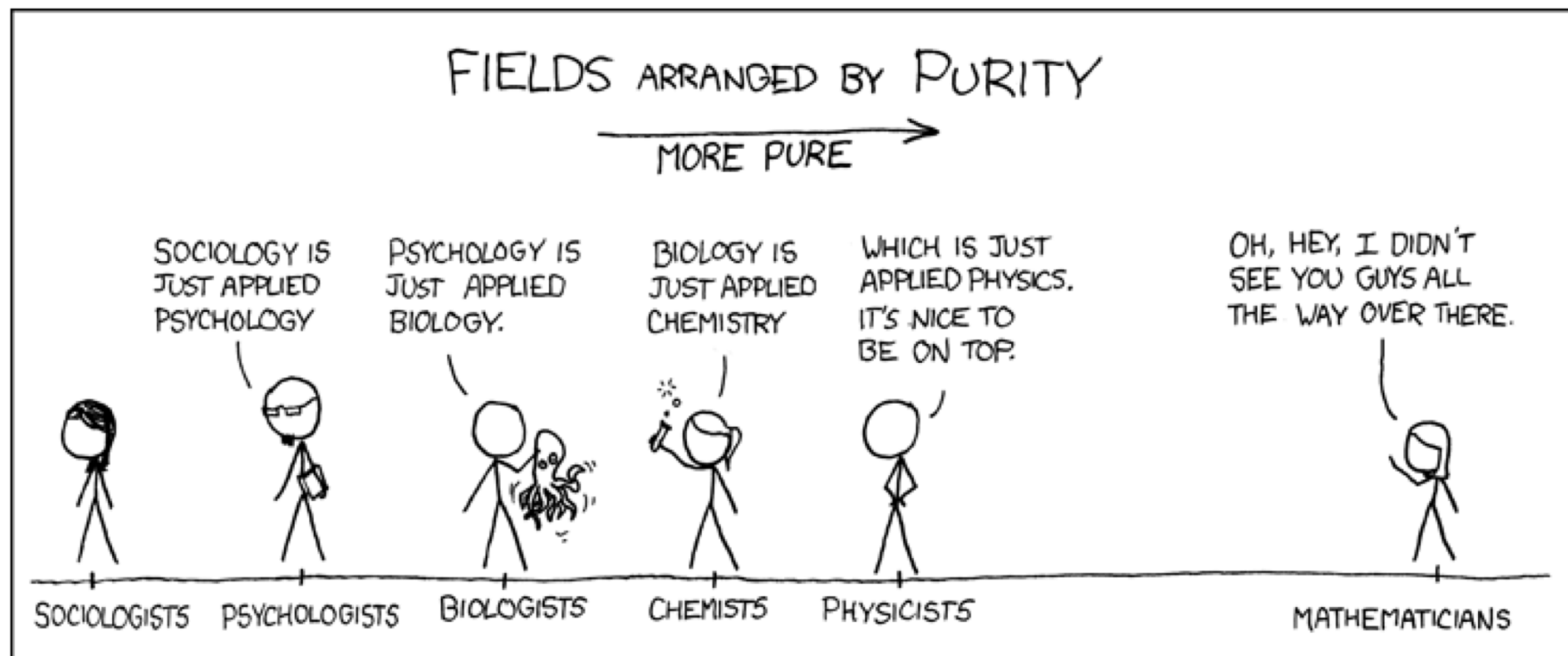
Challenge 1 - the language problem



<http://www.cambridge.org/gb/academic/subjects/psychology/social-psychology/learn-write-badly-how-succeed-social-sciences?format=PB#WGOj6Hqgf8fLWujw.97>



Challenge 2 - disciplinary differences



Comic by XKCD - <https://xkcd.com/435/>

Challenge 3 - broader issues

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The Guardian

Money ► Property Pensions Savings Borrowing Careers

Higher education


University strikes to continue after staff reject pension offer

Union forced to throw out deal reached with employers in attempt to end dispute


Sally Weale Education correspondent
Tue 13 Mar 2018 17:02 GMT

2,972

This article is over 2 months old



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Breek door met 's werelds beste creatieve apps.
Vanaf € 12,09/maand (incl. btw). [Lid worden >](#)

Research is changing and work conditions are changing. It might not be a good time.



<https://www.theguardian.com/education/2018/mar/13/string-university-staff-irate-over-pensions-deal-ucu>

Challenge 4 – need to incentivise



Image: Flickr [Jason Taellious](#) reward – CC-BY-SA 2.0

Lots of work to be done



Questions/Discussion

Thanks!

Dr Danny Kingsley

Head of Scholarly Communication

University of Cambridge

@dannykay68

