

The Intersections between DORA, Open Research and Equity



Stephen Curry

Imperial College and DORA

Edinburgh Open Research Conference | Edinburgh/Online | 27 May 2022



Rethinking science: in 1999

Science's new social contract with society

1999

Michael Gibbons

Under the prevailing contract between science and society, science has been expected to produce 'reliable' knowledge, provided merely that it communicates its discoveries to society. A new contract must now ensure that scientific knowledge is 'socially robust', and that its production is seen by society to be both transparent and participative.

<https://www.nature.com/articles/35011576>

We have allowed scholarly publishing to come into opposition to the public interest

Science
Occam's corner

Zika virus initiative reveals deeper malady in scientific publishing

Stephen Curry

Moves to speed up the release of Zika virus research in response to the public health crisis highlight a systemic failure in scientific publishing. Help could be at hand at the ASAPbio meeting today in the USA

Contact author
@Stephen_Curry

Tuesday 16 February
2016 11:54 GMT



“our research ecosystem provides **no incentives for publishing reliably, rapidly or openly** – all features that one might hope to see in a system that works effectively. Despite a decade or more of talk about open access, [...] we are still mired in technical and cultural debates that remain largely internal to the ivory tower.”

<https://www.theguardian.com/science/occams-corner/2016/feb/16/zika-virus-scientific-publishing-malady>

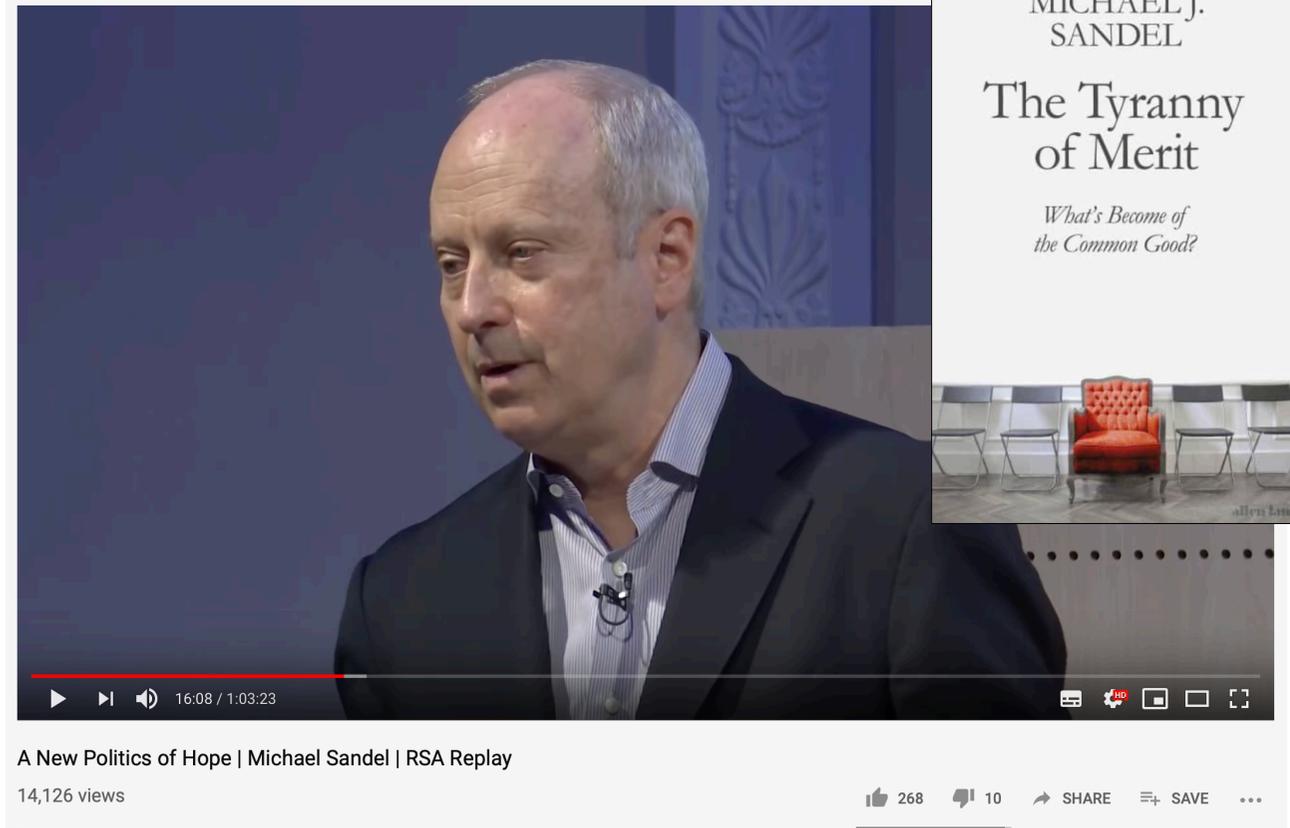
2016

How do we talk about what we value?

2018

“We need to begin to tell stories that frame politics around genuine appreciation and social recognition for **contributions to the common life** and to **collective well-being** that go beyond how the market rewards you and how the market defines the **value** of your contribution.”

Michael Sandel
Dec 2018

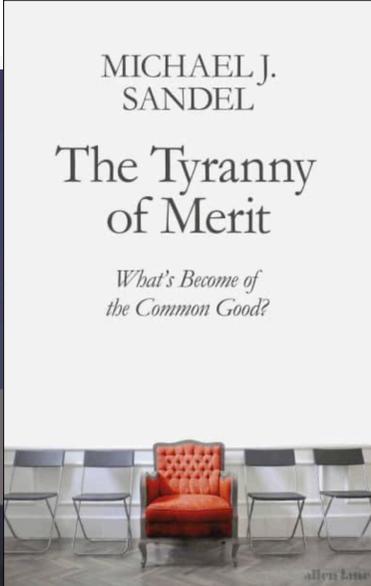


A New Politics of Hope | Michael Sandel | RSA Replay

14,126 views

268 likes 10 comments SHARE SAVE ...

https://www.youtube.com/watch?v=LCZhA-_1n4E



Market value in academia

Impact factors and university rankings have become normalised

Evaluation based on journal metrics reduces productivity

- Chase for Journal Impact Factors slows publication
- Positive bias in the literature (no place for sharing negative results)

Metric-driven hyper-competition in which only the result matters:

- devalues other important academic activities – and academics
- focuses on the ‘what’, not the ‘how’ or ‘who’
- incentivises fraud, undermining public trust

The Times Higher Education World University Rankings
World University Rankings 2013-2014

1	California Institute of Technology (Caltech)	United States	94.9
2	Harvard University	United States	93.9
2	University of Oxford	United Kingdom	93.9
4	Stanford University	United States	93.8
5	Massachusetts Institute of Technology (MIT)	United States	93.0
6	Princeton University	United States	92.7
7	University of Cambridge	United Kingdom	92.3
8	University of California, Berkeley	United States	89.8
9	University of Chicago	United States	87.8
10	Imperial College London	United Kingdom	87.5
11	Yale University	United States	87.4

Rank	Full Journal Title	Total Cites	Journal Impact
1	CA-A CANCER JOURNAL FOR CLINICIANS	28,839	244.585
2	NEW ENGLAND JOURNAL OF MEDICINE	332,830	79.258
3	LANCET	233,269	53.254
4	CHEMICAL REVIEWS	174,920	52.613
5	Nature Reviews Materials	3,218	51.941
6	NATURE REVIEWS DRUG DISCOVERY	31,312	50.167
7	JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION	148,774	47.661
8	Nature Energy	5,072	46.859
9	NATURE REVIEWS CANCER	50,407	42.784
10	NATURE REVIEWS IMMUNOLOGY	39,215	41.982
11	NATURE	710,766	41.577

Why don't we value openness?

“I'm all in favour of open access/science but...”

- what about my career?
- what about the learned societies?
- what about the cost?
- what about predatory journals?

System vs Greater Good

*“Despite personal ideals and good intentions, in this incentive and reward system **researchers find themselves pursuing not the work that benefits public or preventive health or patient care the most, but work that gives most academic credit** and is better for career advancement.”*

Frank Miedema

<https://blogs.bmj.com/openscience/2018/01/24/setting-the-agenda-who-are-we-answering-to/>



A brief history of research assessment reform

May 2013



sfdora.org

Oct 2013



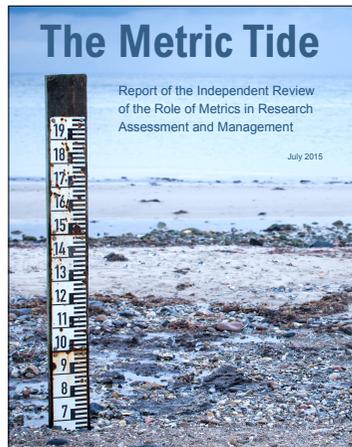
Science in Transition

Mar 2015



Leiden Manifesto

Jul 2015



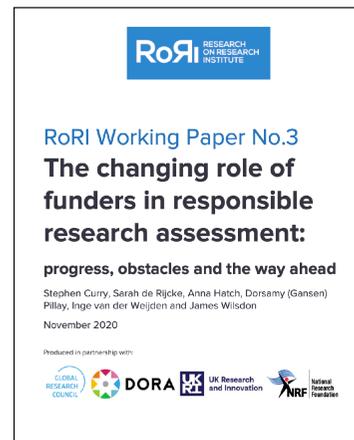
Metric Tide Report

Jul 2020



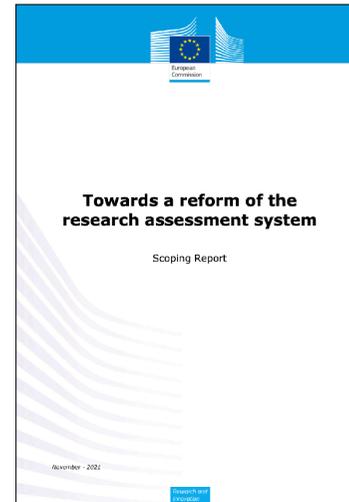
Hong Kong Principles

Nov 2020



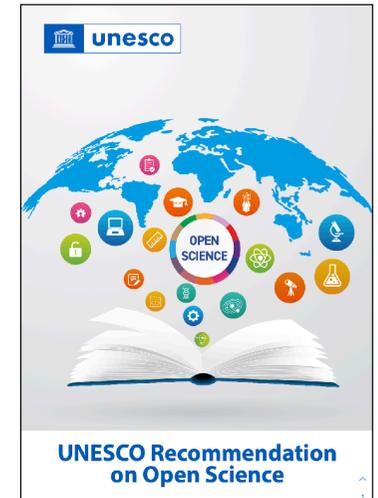
Report for GRC meeting

Nov 2021



EC Scoping Report

Nov 2021



UNESCO Recommendations

We need to talk about how *open* science can be *better* science

Preprints: faster communication

Focus on the content, not the container

Encourages **open peer review**

Questions of reliability and misuse?

More informed discussion about value of peer review & journals?

Open Access, Data & Code sharing: a global audience

Maximising a public good within & beyond the academy

Sharing + Scrutiny = Reliability

How to ensure equitable access for authors?

Open science: better for changing the world

e.g. Zika crisis, Covid-19, global challenges



Check for updates **world view**

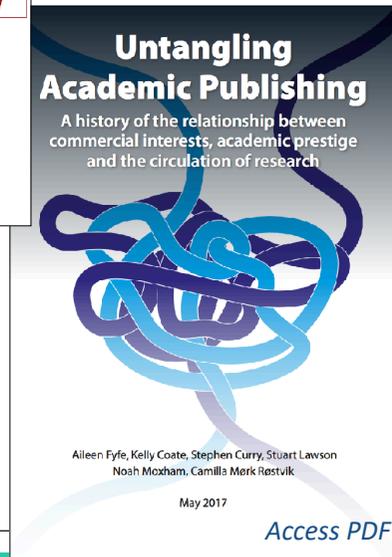
Why preprints are good for patients

Rapid communication of clinical trial results has likely saved lives during the COVID-19 pandemic and should become the new norm.

 Peter Horby

Credit: OU Images_John Cairns 2021

[Access PDF](#)



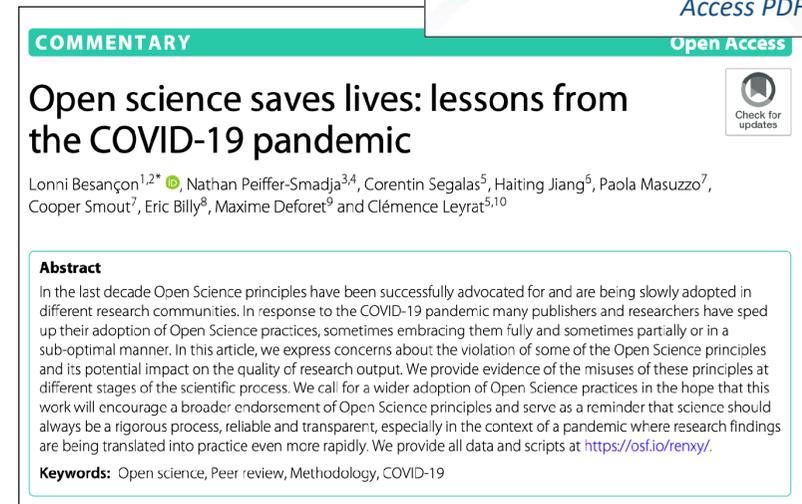
Untangling Academic Publishing

A history of the relationship between commercial interests, academic prestige and the circulation of research

Aileen Fyfe, Kelly Coate, Stephen Curry, Stuart Lawson, Nosh Moxham, Camilla Merik Restvik

May 2017

[Access PDF](#)



COMMENTARY **Open Access**

Open science saves lives: lessons from the COVID-19 pandemic

Check for updates

Lonni Besançon^{1,2*}, Nathan Peiffer-Smadja^{3,4}, Corentin Segalas⁵, Haiting Jiang⁶, Paola Masuzzo⁷, Cooper Smout⁷, Eric Billy⁸, Maxime Deforet⁹ and Clémence Leyrat^{5,10}

Abstract

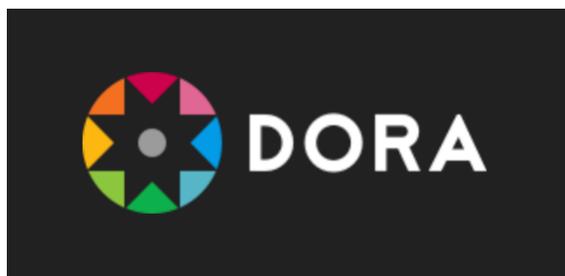
In the last decade, Open Science principles have been successfully advocated for and are being slowly adopted in different research communities. In response to the COVID-19 pandemic many publishers and researchers have sped up their adoption of Open Science practices, sometimes embracing them fully and sometimes partially or in a sub-optimal manner. In this article, we express concerns about the violation of some of the Open Science principles and its potential impact on the quality of research output. We provide evidence of the misuses of these principles at different stages of the scientific process. We call for a wider adoption of Open Science practices in the hope that this work will encourage a broader endorsement of Open Science principles and serve as a reminder that science should always be a rigorous process, reliable and transparent, especially in the context of a pandemic where research findings are being translated into practice even more rapidly. We provide all data and scripts at <https://osf.io/renxy/>.

Keywords: Open science, Peer review, Methodology, COVID-19

Shared research values in an open science world: a proposal



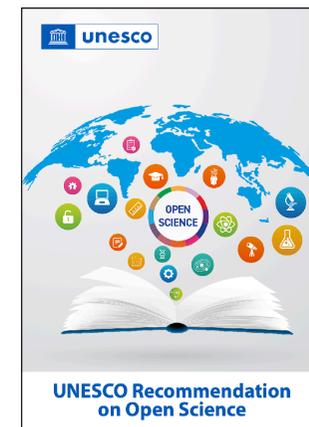
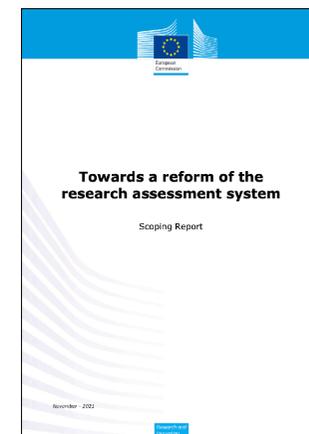
https://en.wikipedia.org/wiki/File:Dr._Sadhna_Joshi_and_Research_Group.jpg



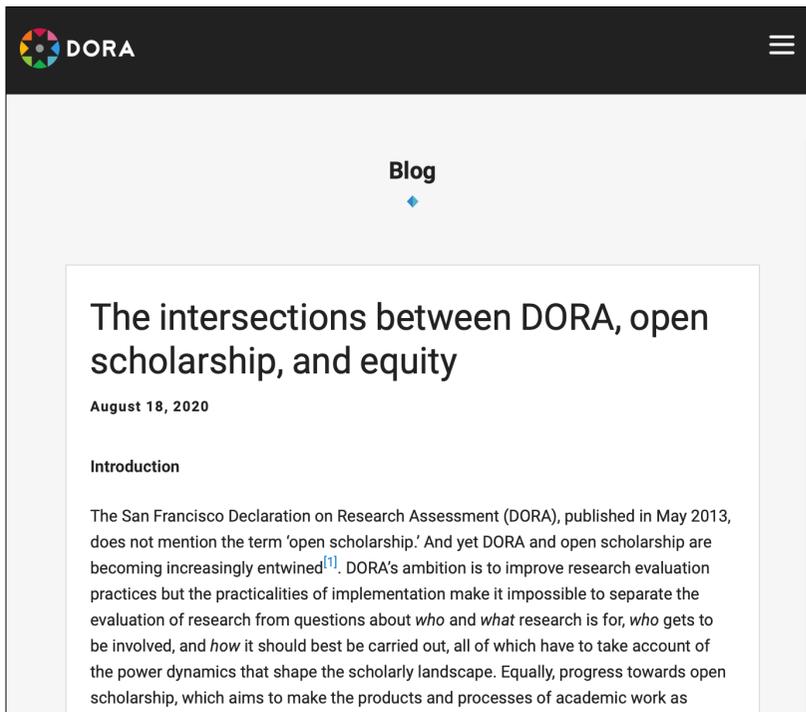
Reliable, rapidly communicated, accessible, high-quality research that transforms our understanding of the world and can change it for the better.

Researchers who collaborate, who feel a duty of care to group members & colleagues, and a responsibility to the societies of which they are an integral part.

A research system that values the people within it, that cares about their quality of life, and that seeks out the creative vigour of diversity.



DORA: we are an important part of a bigger picture



DORA

Blog

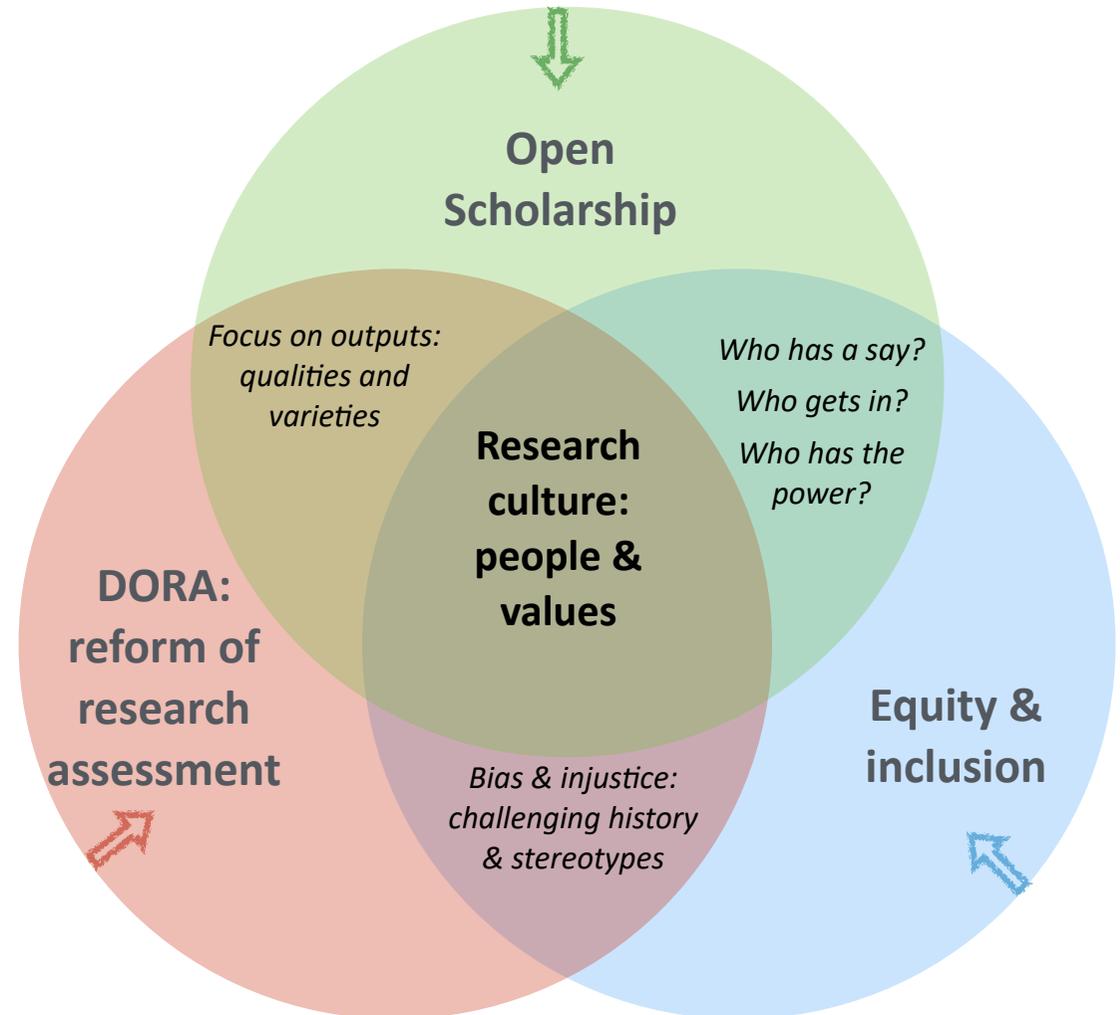
The intersections between DORA, open scholarship, and equity

August 18, 2020

Introduction

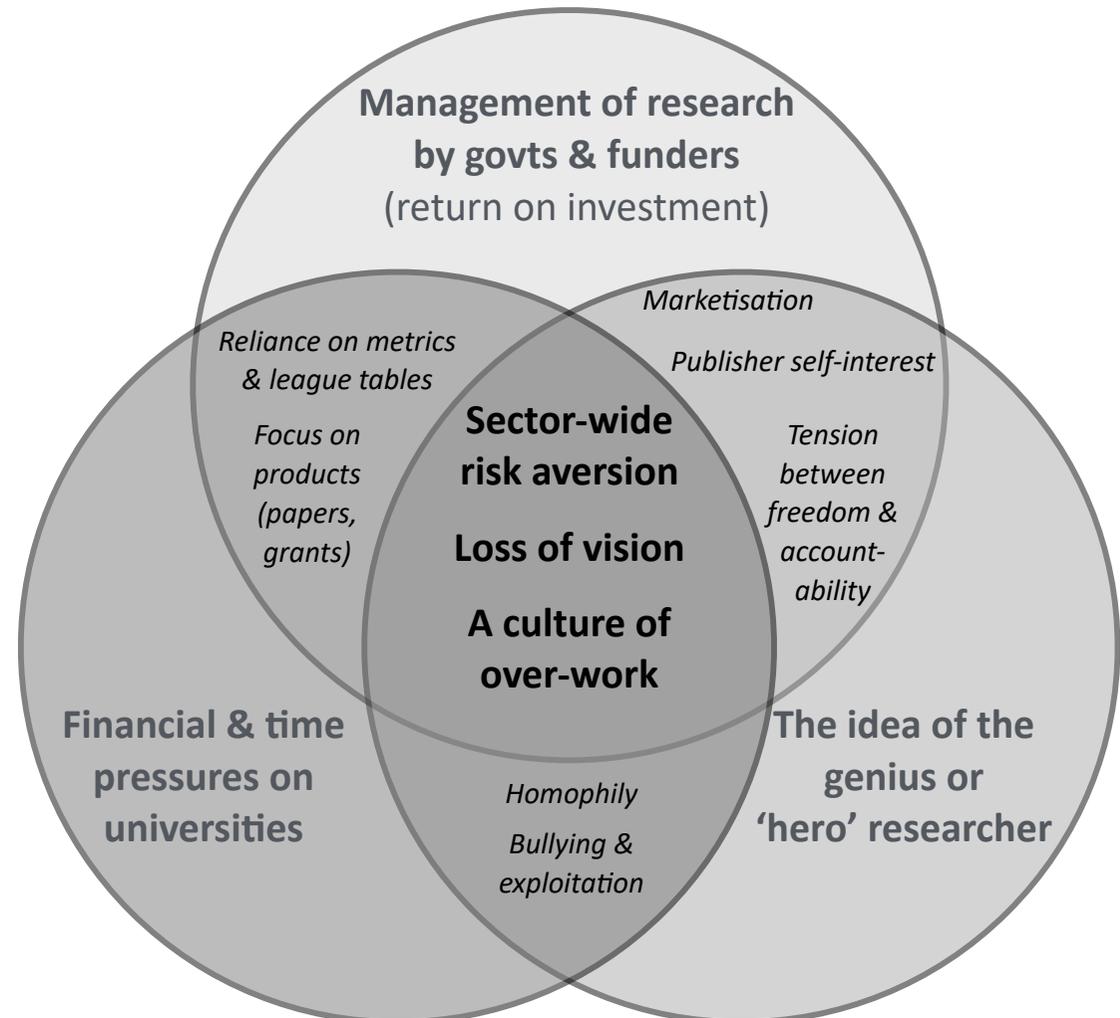
The San Francisco Declaration on Research Assessment (DORA), published in May 2013, does not mention the term 'open scholarship.' And yet DORA and open scholarship are becoming increasingly entwined^[1]. DORA's ambition is to improve research evaluation practices but the practicalities of implementation make it impossible to separate the evaluation of research from questions about *who* and *what* research is for, *who* gets to be involved, and *how* it should best be carried out, all of which have to take account of the power dynamics that shape the scholarly landscape. Equally, progress towards open scholarship, which aims to make the products and processes of academic work as

<https://sfdora.org/2020/08/18/the-intersections-between-dora-open-scholarship-and-equity/>



It's complicated: understanding constraints on change

- External and internal drivers, each apparently reasonable in its own terms, conspire to create a toxic brew
- Individual stakeholders (funders, universities, researchers) are constrained by competitive forces
- To realise the vision of open science, we have to deal with these realities



DORA: the declaration

One general recommendation:

Do not use journal-based metrics, such as Journal Impact Factors, as a **surrogate measure** of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.



17 **positive** recommendations for different stakeholders:

- funders
- **institutions**
- publishers
- data providers
- researchers

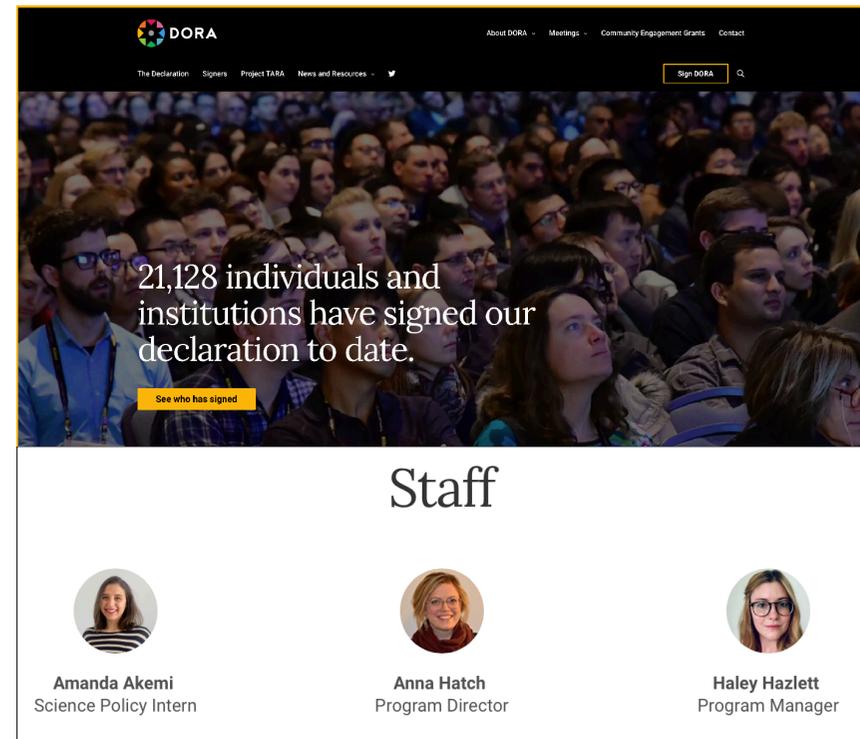
For institutions:

4. **Be explicit about the criteria** used to reach hiring, tenure, and promotion decisions, clearly highlighting, especially for early-stage investigators, that the **scientific content of a paper is much more important than publication metrics** or the identity of the journal in which it was published.
5. For the purposes of research assessment, **consider the value and impact of all research outputs** (including datasets and software) in addition to research publications, and **consider a broad range of impact measures** including qualitative indicators of research impact, such as influence on policy and practice.

<https://sfdora.org/read/>

DORA: a declaration and an organisation

- sfdora.org
- >18,500 individuals and >2,400 organisations have signed
- International funding: 2 members of staff (plus an intern)
- Steering group with [worldwide representation](#)
- Strategy:
 - Promote the declaration to more signatories
 - Extend DORA's global and disciplinary impact
 - Develop and promote best practice in research assessment



DORA: we collaborate on tools and policies



THE ROYAL SOCIETY

Home Fellows Events Grants, Schemes & Awards Topics & policy Journals

Résumé for Researchers

Opening up conversations about researcher evaluation

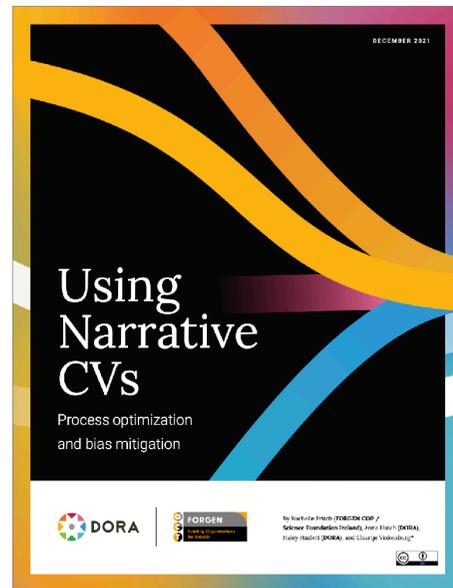
Contributions to:

- the generation of knowledge
- the development of individuals?
- the wider research community?
- to broader society?

Resume for Researchers

Charité University Hospital, Berlin

- Scientific contribution to your field
- Your 5 most important papers
- Contribution to open science
- Your most important collaborations



DECEMBER 2021

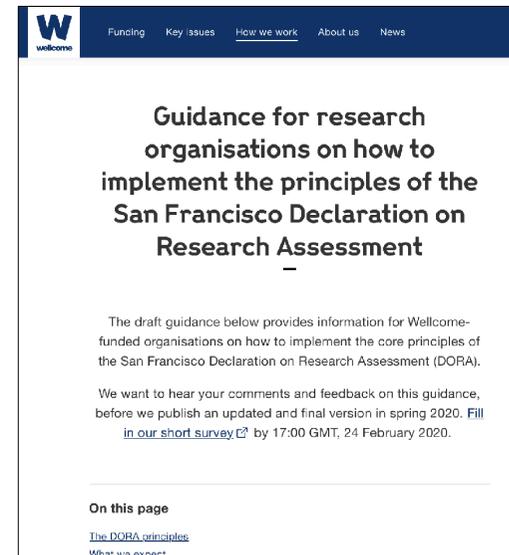
Using Narrative CVs

Process optimization and bias mitigation

DORA FORGEN

By Franka-Franziska FROBENIUS / Sabine FROBENIUS-TRINKE, Jean-Henri DORVILLE, Ingrid HADLER, DORA, and George Vekrellis

DORA & FORGEN report



Wellcome

Funding Key issues How we work About us News

Guidance for research organisations on how to implement the principles of the San Francisco Declaration on Research Assessment

The draft guidance below provides information for Wellcome-funded organisations on how to implement the core principles of the San Francisco Declaration on Research Assessment (DORA).

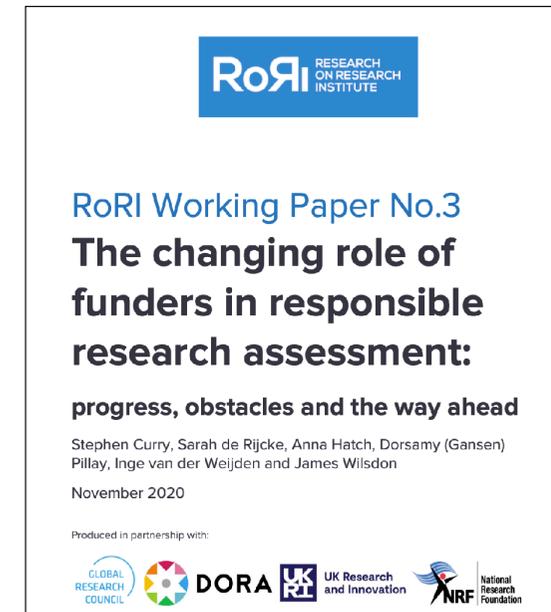
We want to hear your comments and feedback on this guidance, before we publish an updated and final version in spring 2020. Fill [in our short survey](#) by 17:00 GMT, 24 February 2020.

On this page

[The DORA principles](#)

What we expect

Wellcome Trust Policy



RoRI RESEARCH ON RESEARCH INSTITUTE

RoRI Working Paper No.3

The changing role of funders in responsible research assessment: progress, obstacles and the way ahead

Stephen Curry, Sarah de Rijcke, Anna Hatch, Dorsamy (Gansen) Pillay, Inge van der Weijden and James Wilsdon

November 2020

Produced in partnership with:

GLOBAL RESEARCH COUNCIL DORA UK Research and Innovation NRP National Research Foundation

RoRI working paper for GRC

DORA latest: new tools and projects



<https://sfedora.org/project-tara/>

DORA

The Declaration Signers Case Studies Project TARA Resources Blog 

Project TARA



Tools to Advance Research Assessment (TARA) is a project to facilitate the development of new policies and practices for academic career assessment.

Dashboard
An interactive online dashboard that tracks criteria and standards academic institutions use for hiring, review, promotion, and tenure around the world.

Toolkit
A toolkit of resources informed by the academic community to support academic institutions working to improve policy and practice.

Survey
A survey of U.S. academic institutions to gain a broad understanding of institutional attitudes and approaches to research assessment reform.

- **Stephen Curry**, DORA
- **Anna Hatch**, DORA
- **Haley Hazlett**, DORA
- **Sarah de Rijcke**, Center for Science and Technology Studies (CWTS) at Leiden University
- **Alex Rushforth**, Center for Science and Technology Studies (CWTS) at Leiden University
- **Ruth Schmidt**, Institute of Design at the Illinois Institute of Technology
- **4Site Studios**

- Interactive online **dashboard** to track adoption and implementation of responsible research assessment practices in institutions worldwide
- **Survey** of US institutions to understand attitude and approaches to research assessment reform
- An expanded **toolkit** of resources informed by best practice in the community

Project TARA is supported by Arcadia – a charitable fund of Lisbet Rausing and Peter Baldwin

Scientists at odds - change is hard

<https://www.nature.com/articles/d41586-018-07386-x>

NEWS Q&A | 12 November 2018

Arguments over European open-access plan heat up

Biochemist Lynn Kamerlin tells *Nature* why she has coordinated an open letter – signed by more than 950 scientists – objecting to Plan S.

Plan S is “too risky for science”, “unfair”, and “a serious violation of academic freedom”

The screenshot shows the Nature Index website interface. At the top, there are navigation links for Home, News, Current Index, Annual tables, Supplements, and Client services. Below the navigation, there are social media sharing buttons for Facebook and Twitter. The main headline reads "Scientists at odds on Utrecht University reforms to hiring and promotion criteria". Below the headline, there is a sub-headline: "Not everyone wants to let the journal impact factor go." The article is dated "9 August 2021" and written by "Dalmeet Singh Chawla". At the bottom of the article preview, there is an illustration of a staircase with books on the steps and a person climbing, symbolizing the pursuit of knowledge or research.

“We are concerned that Utrecht’s new ‘recognition and rewards’ system will lead to randomness and a compromising of scientific quality....”

but

“The real issue is [...] that we should all unlearn to use unhelpful shortcuts and proxies, and re-learn how to undertake in-depth, contextual evaluation.”

<https://www.natureindex.com/news-blog/scientists-argue-over-use-of-impact-factors-for-evaluating-research>



[https://en.wikipedia.org/wiki/Atul_Gawande#/media/File:Atul_Gawande_\(cropped\).jpg](https://en.wikipedia.org/wiki/Atul_Gawande#/media/File:Atul_Gawande_(cropped).jpg) CC-BY-SA

The image shows the cover of the July 29, 2013 issue of the New Yorker magazine. The title is "SLOW IDEAS" with the subtitle "Some innovations spread fast. How do you speed the ones that don't?". The author is "By Atul Gawande". The cover features a black and white illustration of a person lying on a table, surrounded by various medical and scientific instruments. The text on the cover discusses the history of anesthesia and the challenges of adopting new technologies.

<http://www.newyorker.com/magazine/2013/07/29/slow-ideas>

“We yearn for frictionless, technological solutions. But people talking to people is still how the world’s standards change.”

Atul Gawande

Thank you

s.curry@imperial.ac.uk
@Stephen_Curry

Let's change
what we value
in research.



Imperial College
London

Does DORA work?

nature

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nature > editorials > article

EDITORIAL | 21 July 2021

Responsible research assessment faces the acid test

The University of Liverpool is planning to make lay-offs on the basis of controversial measures. How should the global movement for responsible research respond?

<https://www.nature.com/articles/d41586-021-01991-z>

*** Research** Professional News

UK Europe USA Australia & NZ Africa World Opinion Funding Insight Covid-19

< Go back

OPINION 08 SEP 2021

How should Dora be enforced?

By Stephen Curry Share    

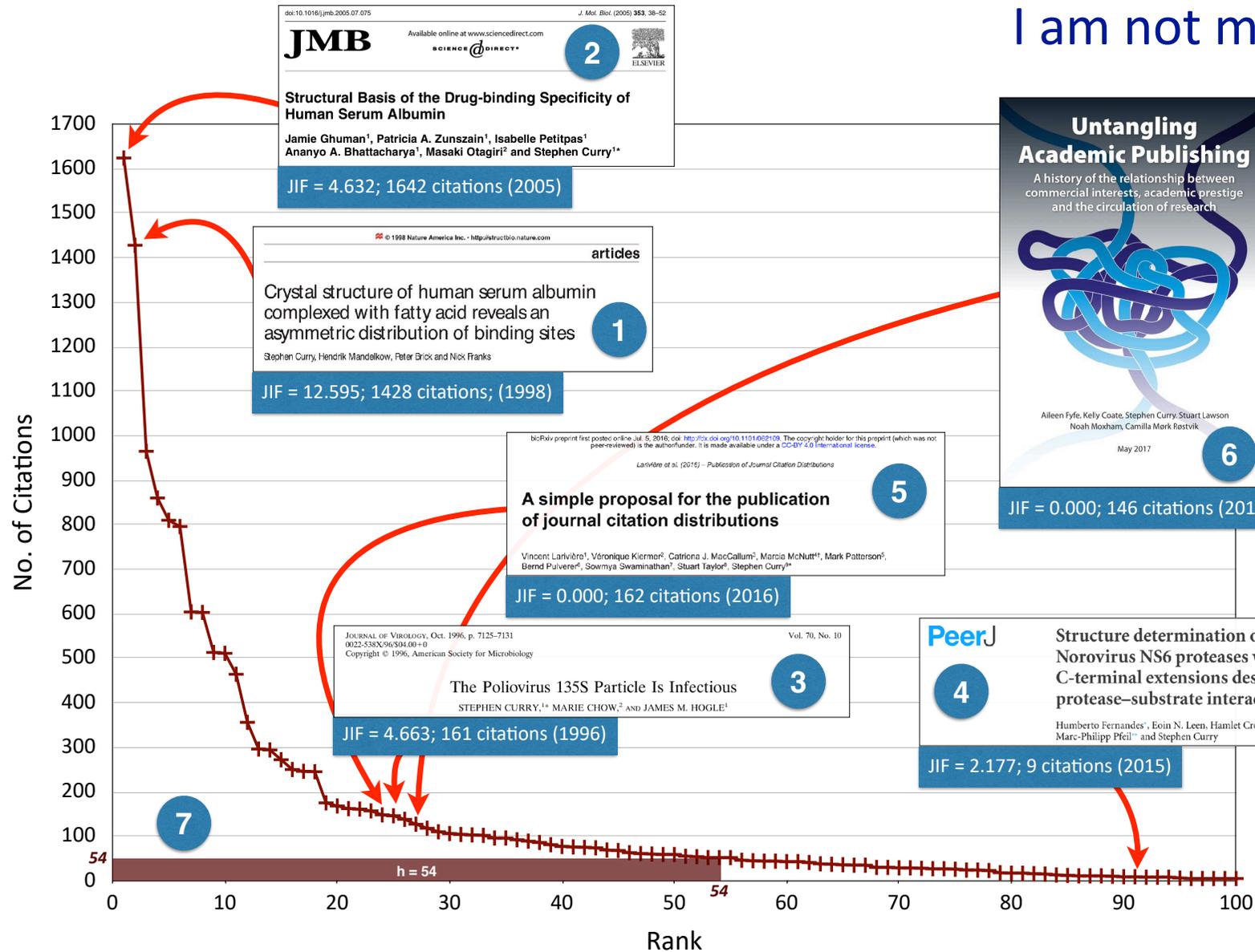


Image: [Sfdora](#) [CC BY-SA 4.0], via Wikimedia Commons

Dispute over Liverpool's use of metrics is best resolved through dialogue, says Stephen Curry

<https://www.researchprofessionalnews.com/rr-news-uk-views-of-the-uk-2021-9-how-should-dora-be-enforced/>

I am not my h-index (or my JIFs)



Key

1. Important discovery - now in textbooks
2. Important discovery - major pharma interest
3. Important discovery - textbooks revised
4. Valuable negative result & UG student training
5. Impactful policy paper (>33k PDF downloads)
6. Much discussed history and policy paper
7. See how much the h-index *doesn't* count

Stephen Curry
Oct 2021

