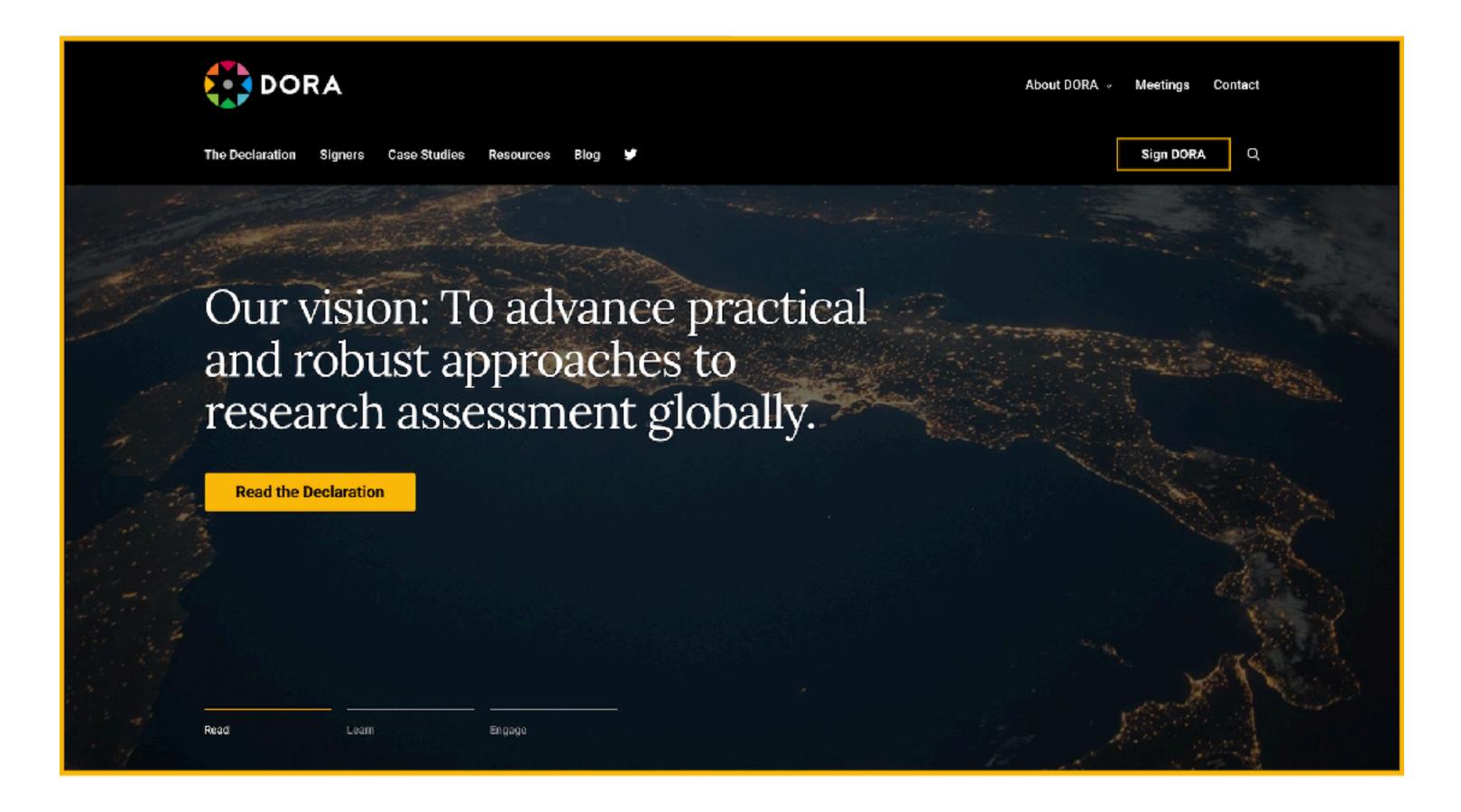
Implementing DORA



Imperial College and DORA

EIFL Webinar | 24 June 2021

Will make my slides available, so no need to try to copy down URLs etc.

Stephen Curry



How did Imperial come to sign DORA?

Impact factors declared unfit for duty

Posted on May 16, 2013 by Stephen

Regulars at this blog will be familiar with the dim view that I have of impact factors, in particular their mis-appropriation for the evaluation of individual researchers and their work. I have argued for their elimination, in part because they act as a brake on the roll-out of open access publishing but mostly because of the corrosive effect they have on science and scientists.



James Stirling Provost

Chris Banks Director of Library Services



Nick Jennings Vice Provost (Research) Chris Jackson Professor, Earth Sciences & Engineering





How did Imperial come to sign DORA?

STUDENT

y f in ≥

Imperial College professor Stefan Grimm 'was given grant income target'

IOBS

EVENTS

RANKINGS

PROFESSIONAL

Emails with manager reveal details of review placed on academic found c in September

December 3, 2014

By <u>Chris Parr</u>

Twitter: @ChrisJParr

A researcher at Imperial College London who was found dead in September had been told he was "struggling to fulfil the metrics" of a professorial post at the



March to Stefan Grimm, icology in the Faculty of university, who died on 25 ines the details of his process", which include

ttributable share" of £200,000 per year in research funding and being t one programme grant as principal investigator in the following 12

Dec 2014

Application and Consistency of Approach in the Use of Performance Metrics

A report by the Associate Provost [Institutional Affairs]

December 2015

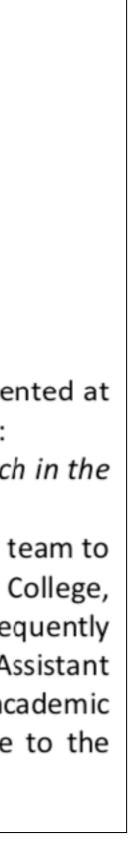
1 Introduction

1.1 In their review of performance management policies at the College, which was presented at Provost's Board in February 2015, the Director of HR and the (then) Senior Consul noted that:

"... a number of concerns were raised ... about the application and consistency of approach in the use of performance metrics in academia and in the College."

As a result, the Provost asked the Associate Provost [Institutional Affairs] to convene a small team to undertake a review of the application of performance metrics for academic staff at Imperial College, the recommendations to be submitted for consideration by Provost's Board. It was subsequently agreed by the Provost to restrict this review to academic staff (Lecturers, Senior Lecturers, Assistant Professors, Associate Professors, Readers and Professors) and to consider other academic researchers (PDRAs, Research Fellows and perhaps others), who are of major importance to the College but who nevertheless have their own (and different) concerns, at a later date.

https://www.imperial.ac.uk/research-and-innovation/ about-imperial-research/research-evaluation/





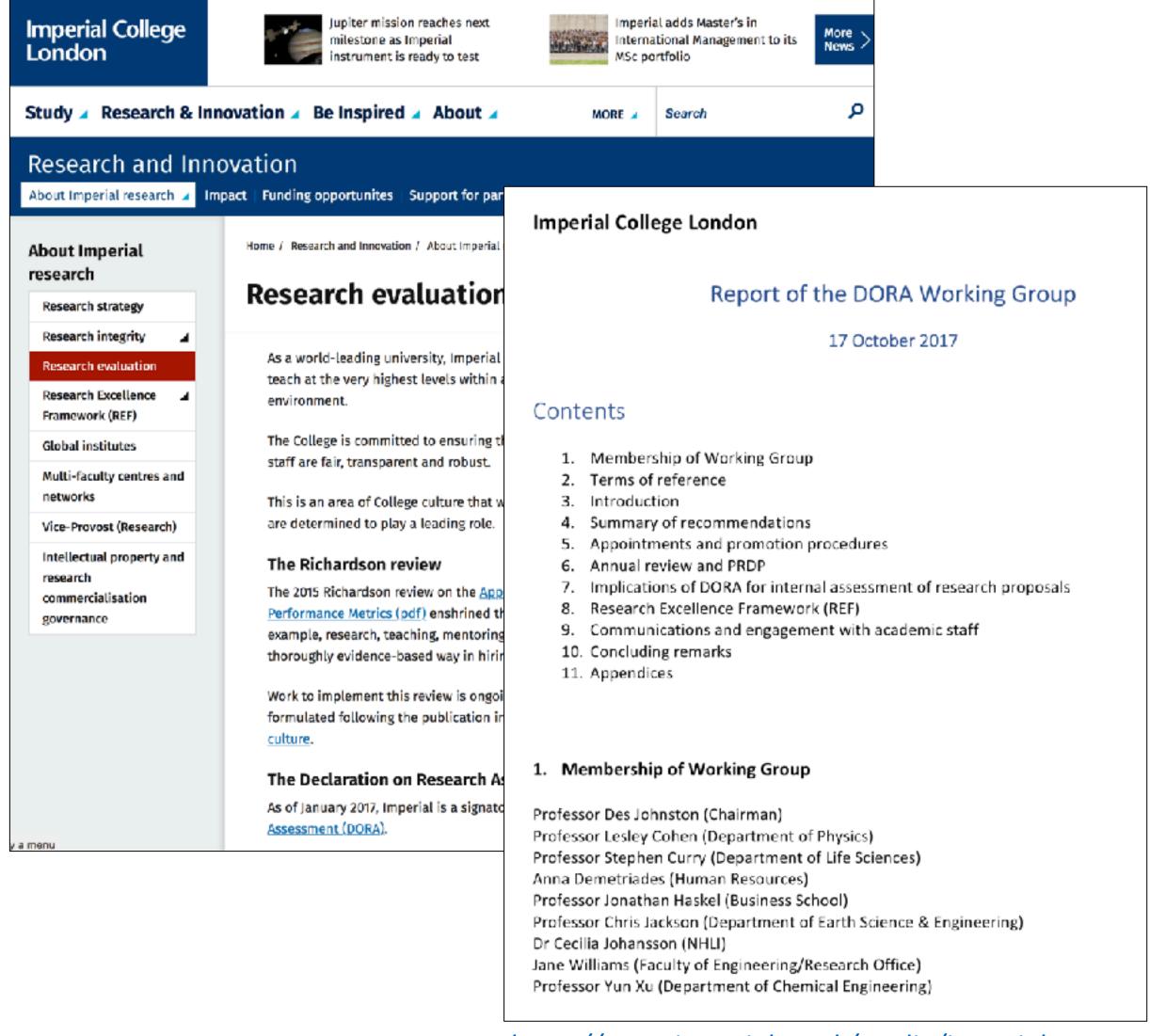
Dec 2015

Imperial signed DORA in 2017: then what?

- College signed DORA in Jan 2017
- DORA implementation working group convened
- Report approved in Dec 2017
 - Changed language in adverts, job descriptions, and guidance on hiring, promotion & funding procedures
 - Communication: workshop

"We recognise that establishing a transparent, evidencebased processes of staff evaluation as part of a culture that aims to be fully inclusive will take time.

Signing the declaration is intended to empower staff to challenge any instances of practice that deviate from the goal of ensuring that research assessment practices are as rigorous as possible."



https://www.imperial.ac.uk/media/imperialcollege/research-and-innovation/public/DORAworking-group-recommendations-2017.pdf





Imperial signed DORA in 2017: then what?

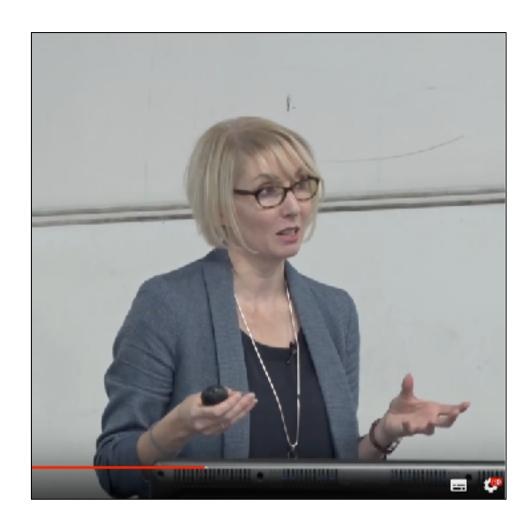




https://youtu.be/IpKyN-cXHL4

One-day workshop: Mapping the Future of Research Assessment at Imperial (Sept 2019)







Our research culture



Message from the Vice-Provost (Research and Enterprise)



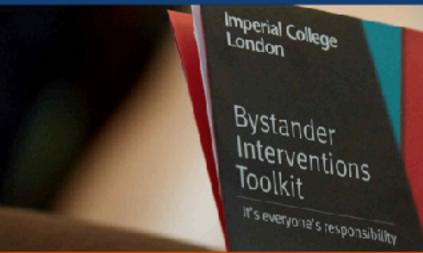
Professor Nick Jennings, Vice-Provost (Research and Enterprise)

Imperial is committed to embedding a positive research culture throughout the Co support our mission to achieve enduring excellence in research and education in s engineering, medicine and business for the benefit of society.

Imperial supports and nurtures a research environment that is defined by a cultur integrity, good governance and best practice. Our highly ambitious, collaborative, multidisciplinary community of researchers possess a common goal of tackling the scientific challenges of our time. This is only possible through our outstanding coll research ethos, and by placing public trust and confidence in our research at the heart of everything we do. We have built an environment where researchers can be bold, challenge the boundaries of their fields, and feel supported in judicious risk-taking.

Achieving a positive research culture is the responsibility of all staff and students at the College. We greatly value our talented researchers and recognise that they are fundamental to our ability to develop and deliver world class research. Imperial is dedicated to building a supportive, considerate and highly motivated community based on diversity, inclusivity and mutual respect across all disciplines, functions and activities to help us to attract and retain our talented staff and students. Equality of opportunity is essential to achieving research excellence and we believe our diversity of thought and culture is fundamental to our ability to solve complex challenges. We aim to remove barriers, eliminate discrimination and make sure everyone has the opportunity to reach their full potential.

Equality, Diversity and Inclusion Strategy Executive summary | Why this matters at Imperial | Current work in College | Aims of the Strategy ⊿



League tables



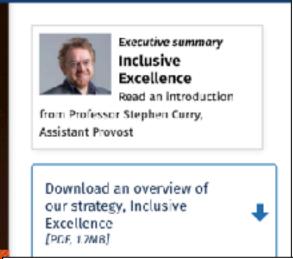
best universities.

This page shows a selection of recent rankings from the UK and worldwide. For more detailed subject-based information, visit our full listing of League Tables.

Global rankings

Wider culture shifts...

Our strategy is a call to action to everyone at Imperial – staff and students – who believes that the dignity and individuality of every other person here should be respected and cherished.



Working Together Task Group



Imperial College London is rated as one of the world's

The Working Together Task Group (WTTG) was established in January 2021 with a specific focus on listening to our community and delivering concrete proposals that will help set the conditions for a positive working environment and culture for our staff and students.

The task group is co-chaired by the Provost, Professor Ian Walmsley, and Senior Consul, Professor Peter Openshaw, and will meet in the spring and summer terms of 2021.

The group is supported by an external independent facilitator, Louisa Hardman, who has extensive experience of supporting positive change in complex institutions including universities, charities and the NHS. She is guiding the task group on how best to engage the wider College community and contribute.

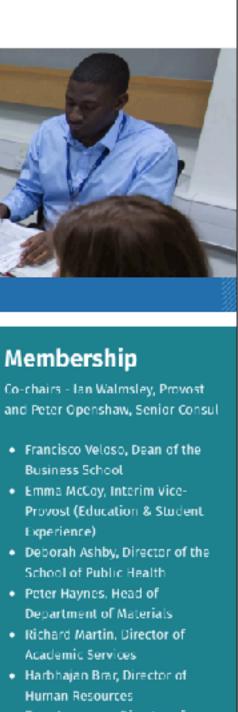
Membership of the task group is drawn from across the College. Their work will also take into account conversations and community feedback already received through contributions to the values project, which is producing a new set of values for the College. The work and timelines of both projects will be aligned to ensure they are complementary.

Membership

- Business School
- Emma McCoy, Interim Vice-Experience)
- School of Public Health Peter Haynes, Head of
- Department of Materials Richard Martin, Director of
- Academic Services Harbhajan Brar, Director of Human Resources

Tony Lawrence, Director of

UK rankings





We need to re-imagine how we do research

Why we need to reimagine how we do research



Jeremy Farrar Director Wellcome

The emphasis on excellence in the research system is stifling diverse thinking and positive behaviours. As a community we can rethink our approach to research culture to achieve excellence in all we do.



The relentless drive for research excellence has created a culture in modern science that cares exclusively about what is achieved and not about how it is achieved.

People tell me about instances of destructive hyper-competition, toxic power dynamics and poor leadership behaviour – leading to a corresponding deterioration in researchers' wellbeing. We need to cultivate, reward, and encourage the best while challenging what is wrong.

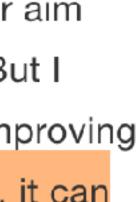
We know that Wellcome has helped to create this focus on excellence. Our aim has rightly been to support research with the potential to benefit society. But I believe that we now also have an important role to play in changing and improving the prevailing research culture. A culture in which, however unintentionally, it can be hard to be kind.

https://wellcome.ac.uk/news/why-we-need-reimaginehow-we-do-research

10 September 2019

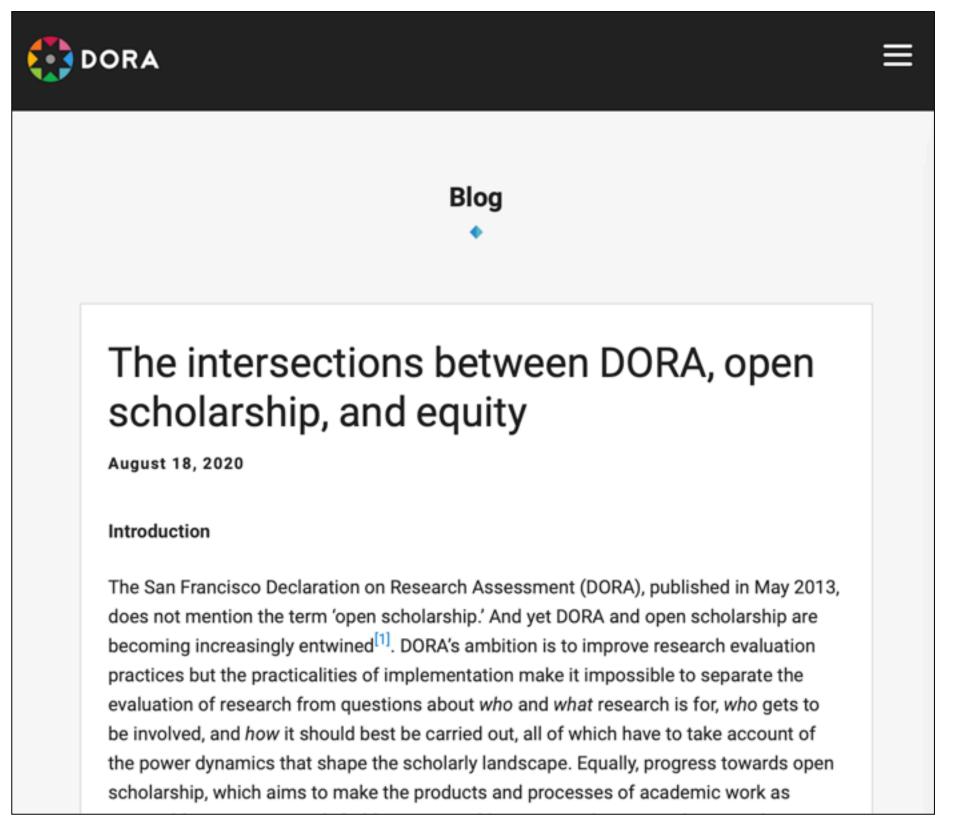








DORA: we are an important part of a bigger picture



https://sfdora.org/2020/08/18/the-intersectionsbetween-dora-open-scholarship-and-equity/ DORA: reform of research assessment Open Scholarship

Focus on outputs: qualities and varieties Who has a say? Who gets in? Who has the power?

Research culture: people & values

Bias & injustice: challenging history & stereotypes Equity & inclusion

No.

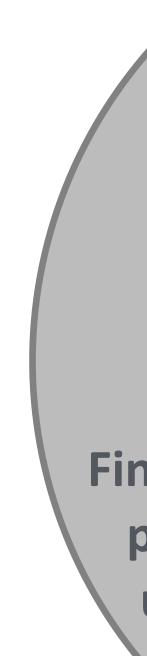


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The bigger picture: understanding the real-world constraints on change

External and internal drivers, each reasonable by its own terms, conspire to create a toxic brew

Individual actors (funders, universities, researchers) are constrained by competitive forces



Management of research by govts & funders (return on investment)

Reliance on *metrics* & *league tables*

Focus on products (papers, grants)

Sector-wide risk aversion

Loss of vision?

A culture of over-work

Financial & time pressures on universities

Only the 'excellent' (undefined) Bullying & exploitation

Marketisation & competition

> Tension between freedom & accountability

The idea of the genius or 'hero' researcher







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:

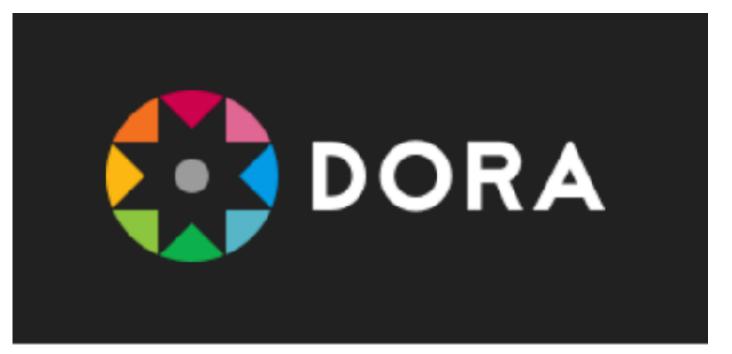
- funders
- institutions
- publishers
- data providers
- researchers

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/



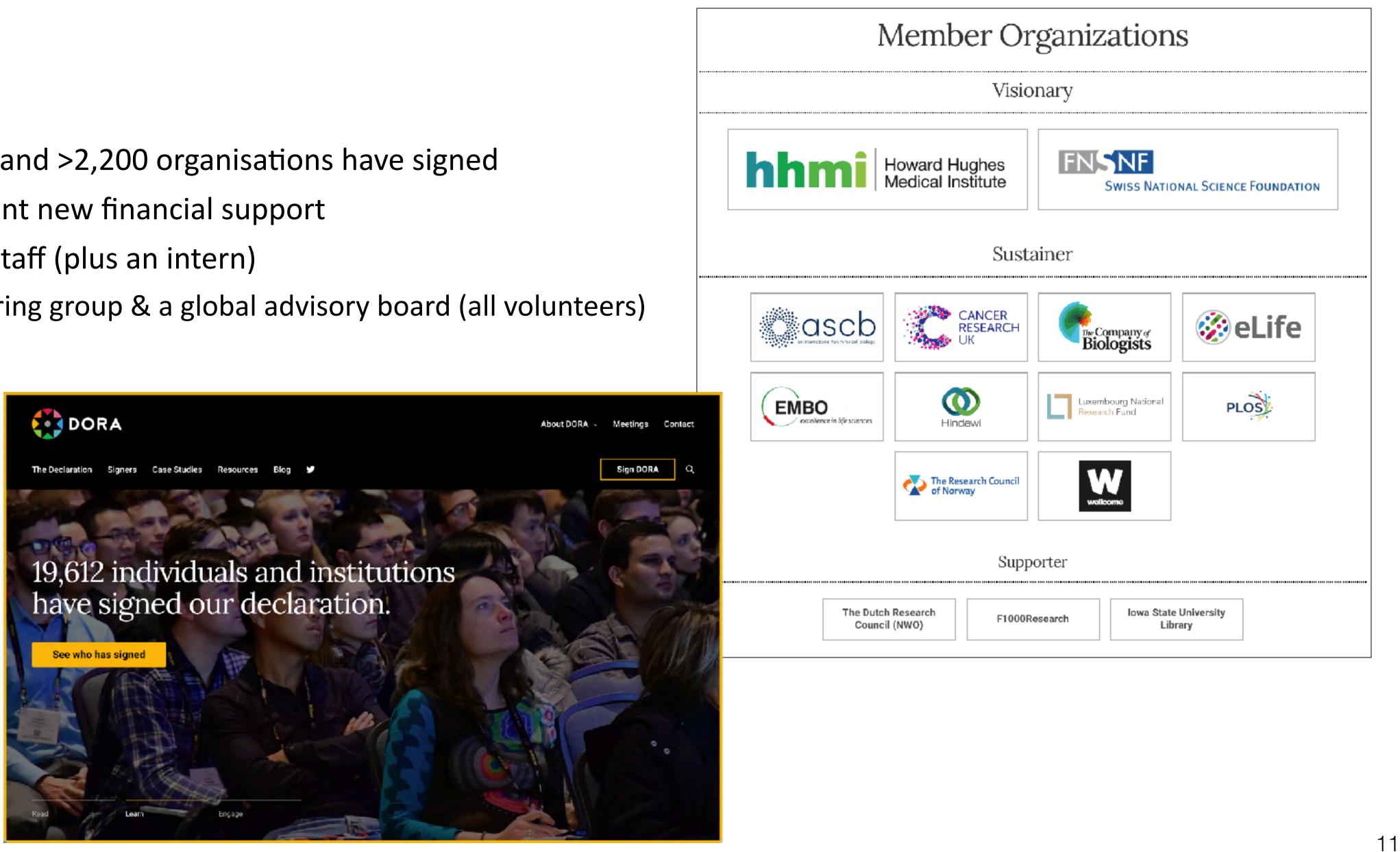
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DORA: the organisation

• <u>sfdora.orq</u>

- Launched in 2013
- >17,600 individuals and >2,200 organisations have signed
- From 2017: significant new financial support
 - 1.2 members of staff (plus an intern)
 - International steering group & a global advisory board (all volunteers)



DORA: Steering Committee, Advisory Board and Staff

Steering Committee



David Carr Wellcome



Stuart King eLife



Claire Moulton The Company of Biologists



Stephen Curry -Chair-Imperial College London



Catriona MacCallum Hindawi



Bernd Pulverer EMBO



Michael Hill Swiss National Science Foundation



Erin McKiernan National Autonomous University of Mexico



Marc Schiltz Luxembourg National Research Fund



Matt Kaiser Cancer Research UK



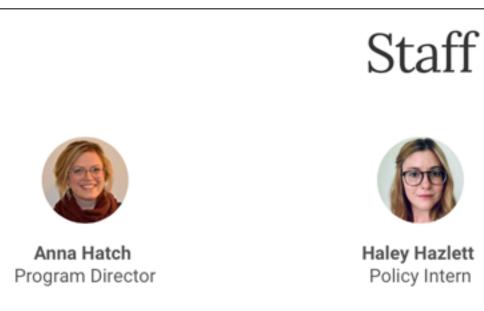
Dan Morgan PLOS



Erika Shugart American Society for Cell Biology



Bodo Stern Howard Hughes Medical Institute





Helen Sitar Community Coordinator

Advisory Board



Ginny Barbour -Chair-Queensland University of Technology Australia



Kelly Cobey Ottawa Hospital Research Institute Canada



Rebecca Lawrence F1000 United Kingdom



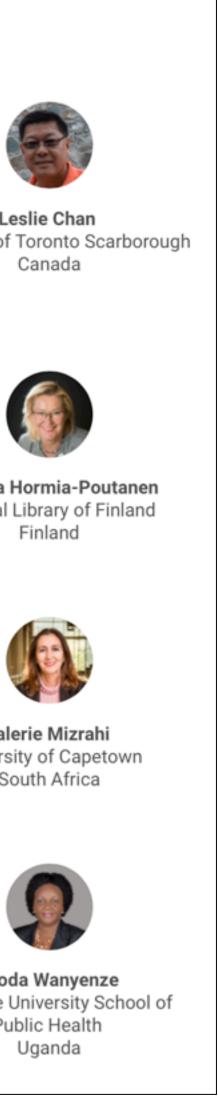
Ahmed Ogunlaja Open Access Nigeria Nigeria



José Pío Beltrán Consejo Superior de Investigaciones Científicas (CSIC) in València Spain



Needhi Bhalla University of California, Santa Cruz United States





Christian Gonzalez-Billaut Universidad de Chile Chile



Xiaoxuan Li Chinese Academy of Sciences China



Laura Rovelli El Consejo Latinoamericano de Ciencias Sociales (CLACSO) Argentina



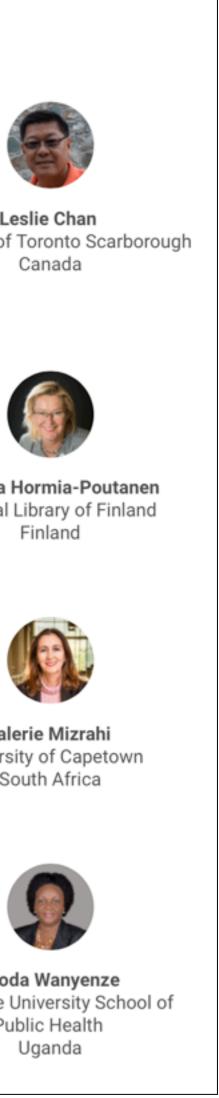
Yukiko Gotoh The University of Tokyo Japan

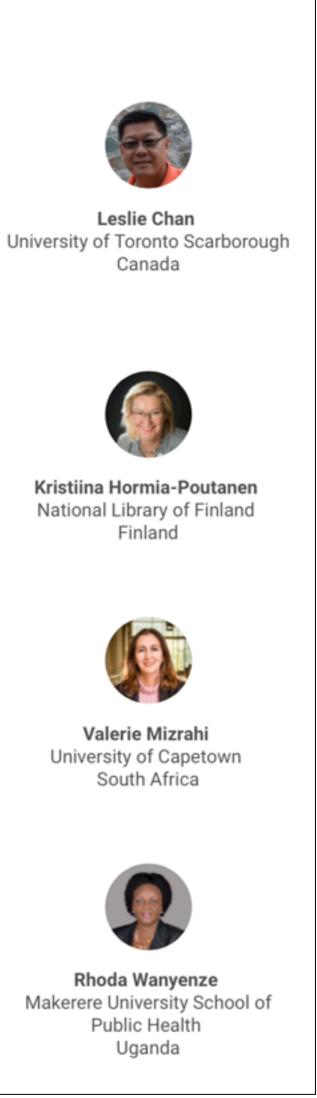


Satyajit Mayor National Centre for Biological Science (TIFR) India



Judith Sutz Universidad de la República Uruguay



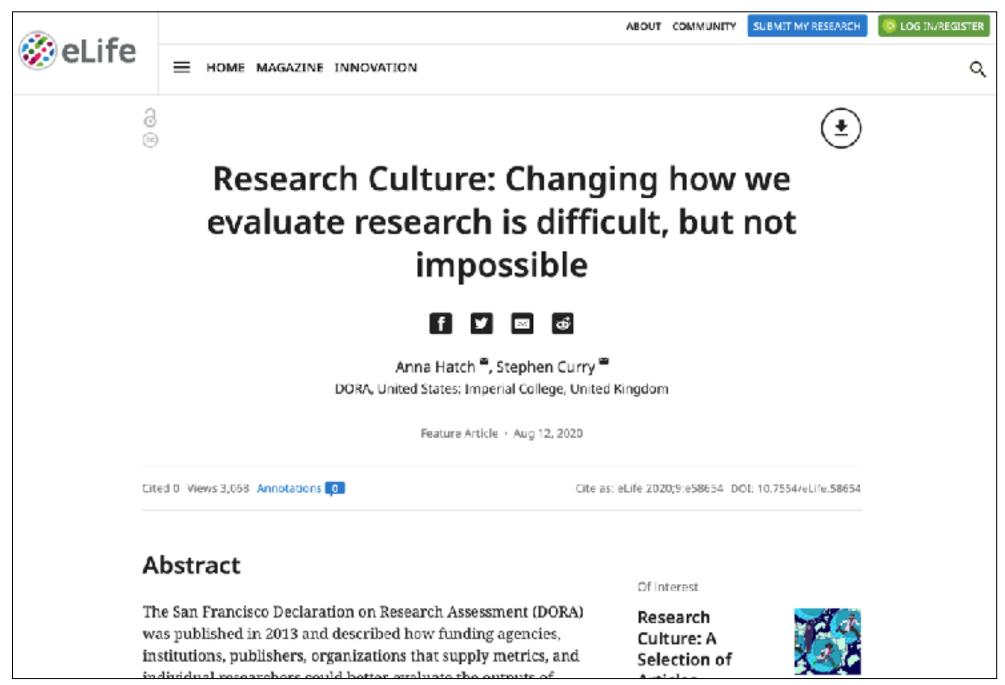




DORA: our roadmap for action

- Recruit more signatories
- Extend the global and disciplinary impact of DORA
- Develop and promote best practice in research assessment





https://elifesciences.org/articles/58654

Framework for action:

- **understand** the obstacles to changes in the way research is assessed
- **experiment** with different approaches
- create a shared vision when revising policies and practices
- communicate that vision on campus and beyond

More info & resources at: https://sfdora.org/



DORA: building and promoting new tools and processes for evaluation

RETHINKING RESEARCH ASSESSMENT **IDEAS FOR ACTION**

COMMON **MYTHS ABOUT EVALUATION**

Hiring, promotion, and tenure decisions are largely made on "merit."

> Quality research is easy to recognize and rises to the top

JIF and other similar journal-based indicators measure research quality

Researchers mostly care about journal reputation

> Assessment practices will naturally improve over time

Assessing research and researchers, especially in research-intensive institutions, frequently relies on indicators like Journal Impact Factor (JIF) and similar measures as proxies for quality in research, promotion, and tenure (RPT) decisions. But a closer examination indicates that the perceived value of JIF is often grounded in five common myths:

Large volumes of applications for faculty searches make it difficult for evaluators to distinguish between top-tier candidates, and unintended biases—like the halo effect, availability, and confirmation bias—influence decision making.

Novel research, including breakthrough Nobel-prize winning work², often becomes influential (and cited) outside of the JIF measurement window³, and findings with significant societal impact are not always published in journals with a high JIF.

JIFs are intended to reflect overall journal measures, and do not provide reliable or scientifically sound information about individual articles or researchers⁵.

Forty percent of research-intensive institutions in North America mention JIF in RPT documents, but interpret it inconsistently to mean quality, importance, or prestige*.

Faculty members claim to prioritize peer readership when publishing, yet the perception that their peers value prestige and a reliance on university rankings puts pressure on researchers to publish their work in high impact factor journals⁷.

"Invisible work" like service is typically not valued in RPT, yet disproportionately fails on women and other scholars historically excluded from research^{9,10}.

Based on a model of current post-doc to faculty transitions, faculty diversity will not significantly increase until 2080 without active intervention¹¹.



Analogous examples of these myths exist, both inside and outside of science:



Allwomen John



Low-profile, high impact research on extending the life of mangoes tiansformed the industry, where iransportation demage had rically reduced yield by 40% rowed \$1 billion in losses4

Bizaci azme medications are often preferred to generics, oven if Rx they are the same formulation





A 2019 US poll found tint 74 percent of Democrats and ndependents were comfortable with the idea of a woman sident, but only 33 pewent belleved their neighbors were?.

Only faity-times percent of electerates in the hipmedica sciences are awarded to historically well-moresented populations (i.e. white and Asian males), but this same group accounts for 82% of full professorships¹⁰.

https://sfdora.org/resources/

RETHINKING RESEARCH ASSESSMENT UNINTENDED COGNITIVE BLASES



Judgment and decision-making biases that impact how we weigh options and make choices have been shown to result in inequitable review, promotion, and hiring practices. While recognizing these biases at a personal level is important, creating new structural and institutional conditions to reduce bias can be even more valuable.

People tend to dismiss evidence that doesn't fit their initial judgments or preconceptions

Example: Cherry picking information from a CV to confirm the view one already has, or dismissing potential warning signs because a candidate has already been accepted as a good fit.

Why it's problematic: Our initial conceptions are often based on subjective experiences and limited data. Failing to gather and consider counter-evidence makes us more likely to fall into old ways of thinking.

We often take the path of least resistance unless there are strong reasons not to

Example: Continuing to use citations from academic journals as a primary indicator of impact or quality, rather than considering alternate quantitative indicators of real world value.

Why it's problematic: People often stick with recognizably flawed processes because the effort. to fix them or adopt new ones is perceived as too much effort

Tackling these

infrastructural and

institutional implications

of common biases can

help promote and support

more equitable

practices:

Resources often flow to those who already have them

Examples: Highly cited references may be more cited in part because researchers. see that they're highly cited. Researchers with a long track record of grants receive a cisproportionate amount of new funding.

Why it's problematic: When people lack the time or motivation to yet results, this can make access to resources even less equitable

Once metrics are accepted as a way to gauge value, they start to lose meaning as objective measures

Example: Reward systems that rely on easily measurable qualities—like citations and publishing in high-JIF publications-can lead people to "game" the system.

Why it's problematic: When quantitative measures have an outsize impact on how people are rewarded, it can increase the temptation to focus on a narrow set of activities and reduce investment in other meaningful, but less rewarded, achievements

"Objective" comparisons are not necessarily equitable

14

Qualities that can be measured or ranked are tempting because they feel less subjective, but can feed a false sense of precision.

What can institutions do?

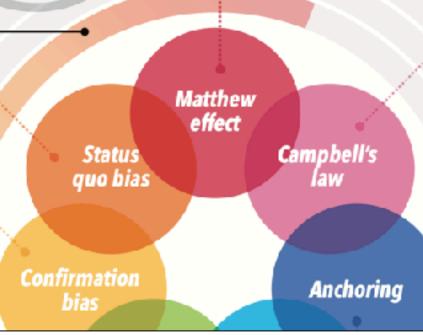
- Balance the use of guantitative metrics with qualitative inputs, like narrative CVs, that capture more intangible qualities
- Select standards based on a wide set of inputs rather than a narrow or anecdotal set
- Recognize where setting specific, guantifiable. goals may be reinforcing some behaviors at the expense of others

Incumbent processes and perceptions have the advantage

Many institutions have deep legacy traditions that become normalized over time, but these organizational habits can also keep new ideas and people out.

What can institutions do?

- Make the benefits of new behaviors concrete, salient, and easy to grasp
- Recognize where old assumptions may overly reward those who are more traditionally successful, at the expense of new or more diverse talent
- Set, publicize, and adhere to measurable goals that look beyond traditional norms of success when reviewing potential candidates to broaden the pool of

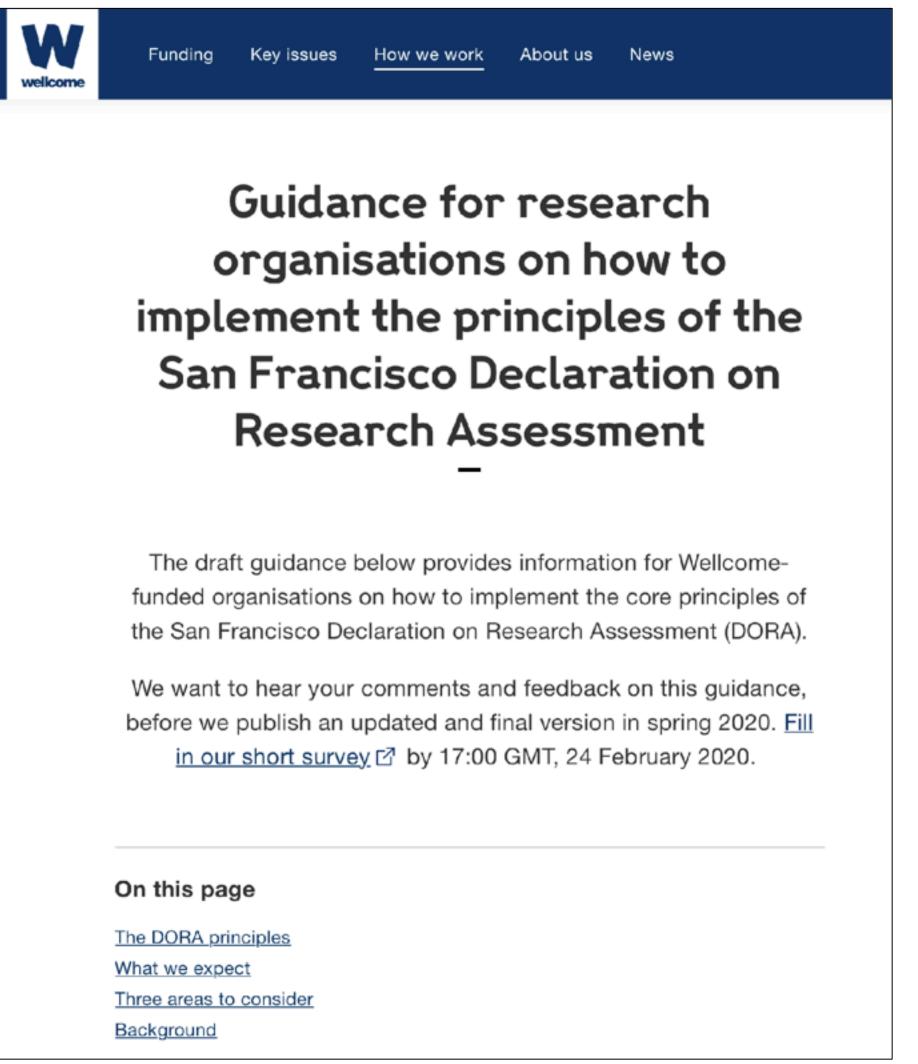


DORA: we collaborate on tools and policies



https://royalsociety.org/topics-policy/projects/research-culture/toolsfor-support/resume-for-researchers/

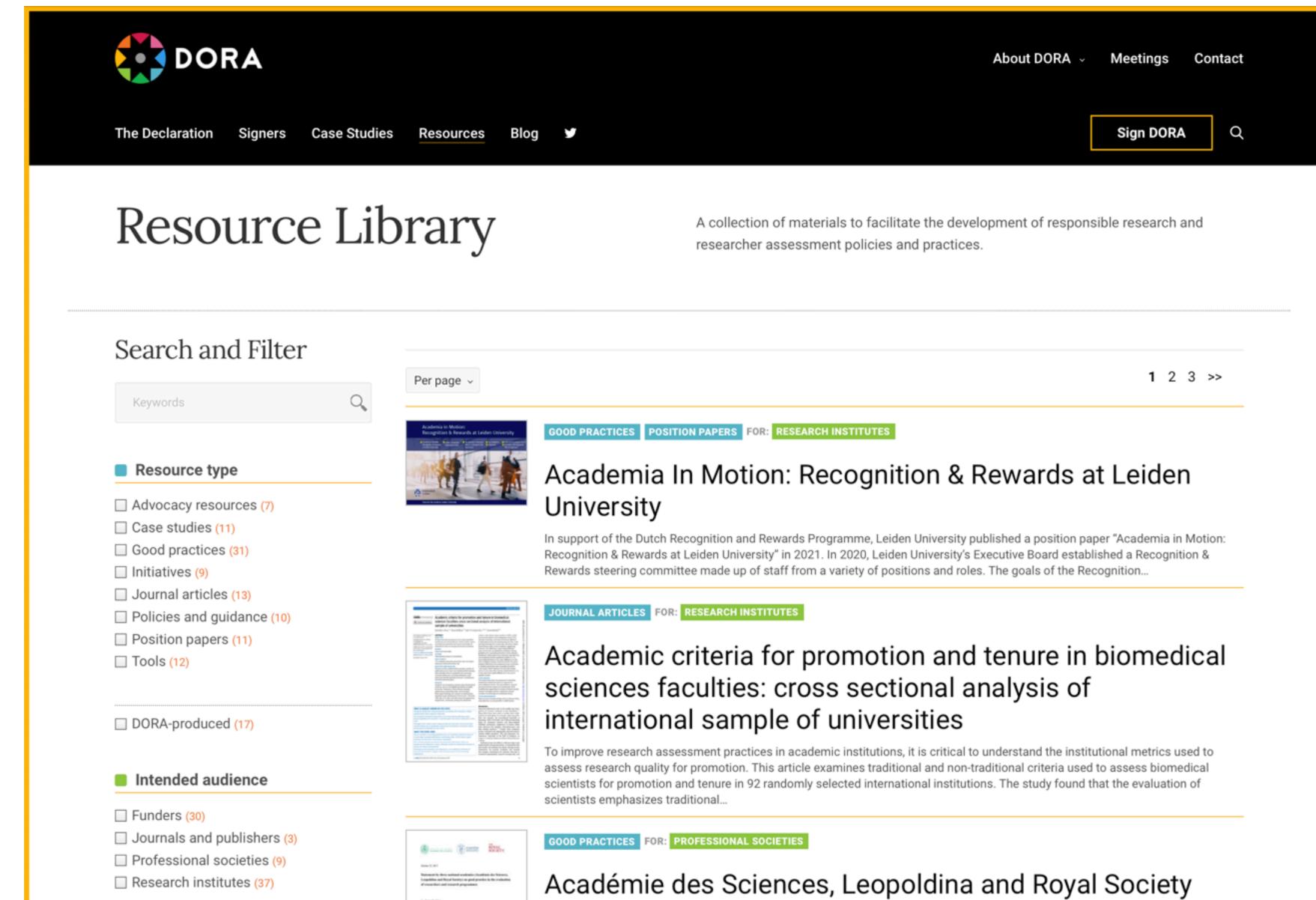
Welcome Trust – implementing DORA principles



https://wellcome.ac.uk/how-we-work/open-research/guidanceresearch-organisations-how-implement-dora-principles



DORA: sharing good practice







Blog



DORA: case studies

DORA and Responsible Research Assessment (RRA)



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



https://rori.figshare.com/articles/report/ The_changing_role_of_funders_in_responsible_research _assessment_progress_obstacles_and_the_way_ahead/ 13227914 "the purpose of RRA is to improve research, in cultures, in practices and in products."

RRA is "an umbrella term for approaches to assessment which incentivise, **reflect and reward the plural characteristics** of high-quality research, in support of diverse and inclusive research cultures."

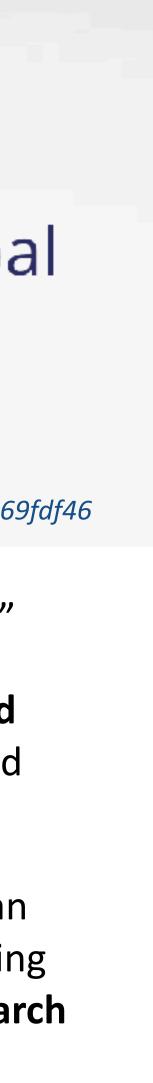
"Opening up the **range of contributions** that are recognised as valuable will also be an important step towards **detoxifying the hyper-competitive culture** which, by fixating on stunted measures and proxies for success, is **eroding the sustainability of research systems**, degrading researcher wellbeing, and maintaining barriers that exclude women and other under-represented groups."



Responsible Research Assessment – a virtual conference from the Global Research Council

November 23 - 27, 2020

https://web-eur.cvent.com/event/7ca86a3d-6e6f-4d11-98e9-f01fe69fdf46





Imperial College London

Thank you

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