Improving research culture - confidence in qualitative assessment methods

@KarenStroobants

#ResearchCulture #ReformingRA

Research assessment reform is a central lever to **improving research culture**

Basing assessment primarily on **qualitative assessment methods** is central to current reform

Exploring qualitative methods presents **opportunities** for better assessing how research is done, but **challenges** remain

Research assessment reform is a central lever to maximising research quality and impact and to improving research culture

Research culture – *how* research is done

THE ROYAL SOCIETY

'Research culture encompasses the behaviours, values, expectations, attitudes and norms of our research communities. It influences researchers' career paths and determines the way that research is conducted and communicated.'

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Narrow definitions of success are a core cause of poor research culture

Poor research culture e.g. over-reliance on metrics; compromises on rigour and integrity; undervaluing of negative results and of replication studies; lack of transparency around hiring and promotions; barriers to diversity and inclusion

'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.'
- Jeremy Farrar, Director, Wellcome

Poor research culture e.g. unhealthy competition; bullying and harassment; poor management practice; stress and anxiety; mental health issues; impact on personal relationships; isolation

Key aspects of achieving researcher wellbeing and research success are under-recognised

ROYAL SOCIETY OF CHEMISTRY

Progress is dictated by narrow definitions of excellence

- There were concerns that current definitions of excellence in science are narrow and outdated.
- The research world is changing and there is broad recognition that the 'publish or perish' model is redundant. Yet among our respondents, it is still perceived to be the primary driver of career progression.
- Funding and promotion decisions are driven by research output. Efforts and successes in areas including teaching, pastoral responsibilities and academic citizenship activities, including Athena SWAN and REF (Research Excellence Framework) preparation do not 'count' towards promotion prospects.
- Women reported being more heavily involved with activities in these undervalued areas than their male counterparts.
- A number of respondents questioned whether women should actively avoid contributing to non-research activities; others said that science would suffer as a result.

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Survey of 126 researchers, mostly at Flemish research institutions ***by Noémie Aubert Bonn and Wim Pinxten***

advancing

SCIENCE

diversity of ideas and people

open science

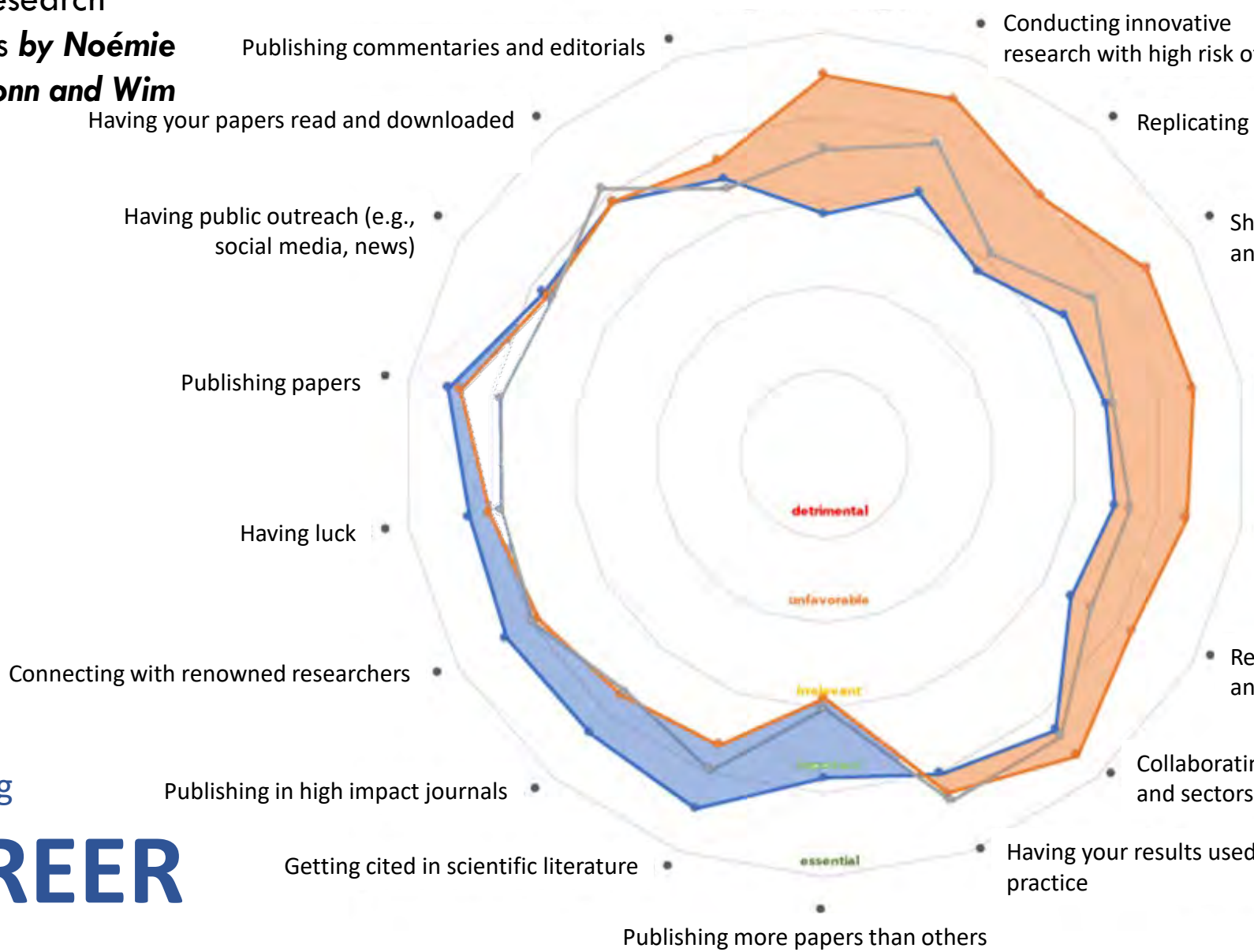
community contributions

career development

collaboration

advancing

CAREER



Improving culture

Qualitative central

Opportunities

Aubert Bonn, N., & Pinxten, W. (2021). https://doi.org/10.1371/journal.pone.0243664

Recognising broader contributions and reliance on qualitative assessment methods are central to research assessment reform

Agreement

- Assessment processes relying predominantly on journal- and publication-based metrics **can be a hurdle to the recognition of diverse contributions and may negatively affect the quality and impact of research**. They also **contribute to an unhealthy research culture and an unaffordable publication system**.
- Building on progress made so far (DORA, Leiden Manifesto, Hong Kong Principles), the Agreement **establishes a common direction for research assessment reform**, while respecting organisations' autonomy. It is based on **shared principles**, **10 commitments**, and a **timeframe** (1 & 5 years) for reforms.
- Agreement published on 20 July 2022.

539 validated signatories
as of 04 May 2023

@KarenStroobants @CoARAssessment #ReformingRA

CoARA

Core commitments

1. **Recognise the diversity of contributions** to, and careers in, research, in accordance with the needs and the nature of the research.
2. **Base research assessment primarily on qualitative evaluation for which peer-review is central**, supported by responsible use of quantitative indicators.
3. **Abandon the inappropriate uses in research assessment of journal- and publication-based metrics**, in particular the inappropriate uses of journal impact factor (JIF) and *h*-index.
4. **Avoid the use of rankings of research organisations** in research assessment.

CoARA

Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.

Improving culture

Qualitative central

Opportunities

www.coara.eu

Coalition for Advancing Research Assessment

- **Mission:** **Enable systemic reform of research assessment** on the basis of common principles and commitments within an agreed timeframe, as set in the Agreement on Reforming Research Assessment.
- **Offers a space for its members (signatories of the Agreement) to learn from others' experiences**, to advance the process of research assessment reform in Europe and beyond.
- The **Constitutive Assembly**, the first meeting of the General Assembly of members of the Coalition, took place on 1 December 2022.
- Coalition members have now been invited to be involved in **Working Groups** with the aim to achieve the Commitments and CoARA's mission.

465 member organisations
as of 04 May 2023

Just 10 UK members, only 4 UK universities

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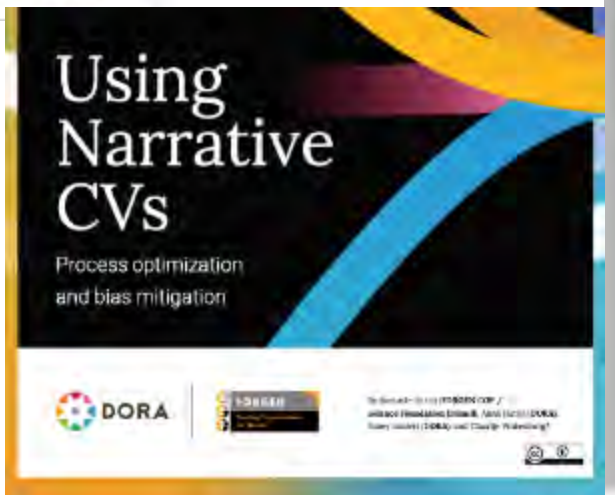
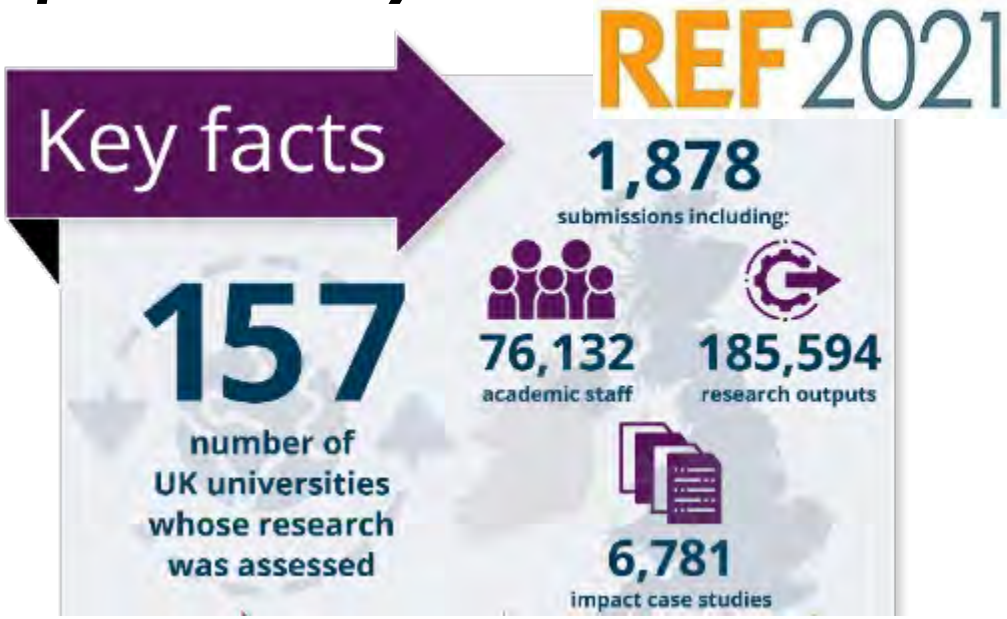
Basing research assessment primarily on qualitative evaluation?





Exploring 'new' qualitative methods presents opportunities for better assessing how research is done, but challenges remain for their implementation

Assessing how research is done?

REF 2021 REF 4, 5 Environment UNIVERSITY OF ABERDEEN

- Description of research environment, facilities, E&D arrangements, open access, support for interdisciplinarity and research integrity, sustainability and vitality of submitting unit
- Two environment statements: a short, institutional statement that describes **institutional/central policies and measures** and a longer, unit of assessment based statement that describes the policies, processes and measures in place **within the submitting unit**.
- **REF metrics**: research income, research income in kind and number of doctoral degrees awarded between 1 August 2013 to 31 July 2020 (from HESA)

Exploring research integrity indicators: A new project by UKRI, Cancer Research UK and GuildHE

by Rachel Persad | Dec 9, 2021 | Projects

We are pleased to announce a new collaboration between UKRI, Cancer Research UK and GuildHE, to explore what indicators of research integrity exist, or could be proposed, that are valid, reliable, ethical and practical, and to open a national and international discussion on next steps. We see this area as a growing policy priority, and this project will inform the work of the recently-established UK Committee on Research Integrity.

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Should/can 'how research is done' be captured in quantitative metrics?

LIS BIBLIO METRICS

THE BIBLIOMAGICIAN

Comment & practical guidance from the LIS-Bibliometrics community

AUGUST 21, 2018

Measuring openness: should we be careful what we wish for?

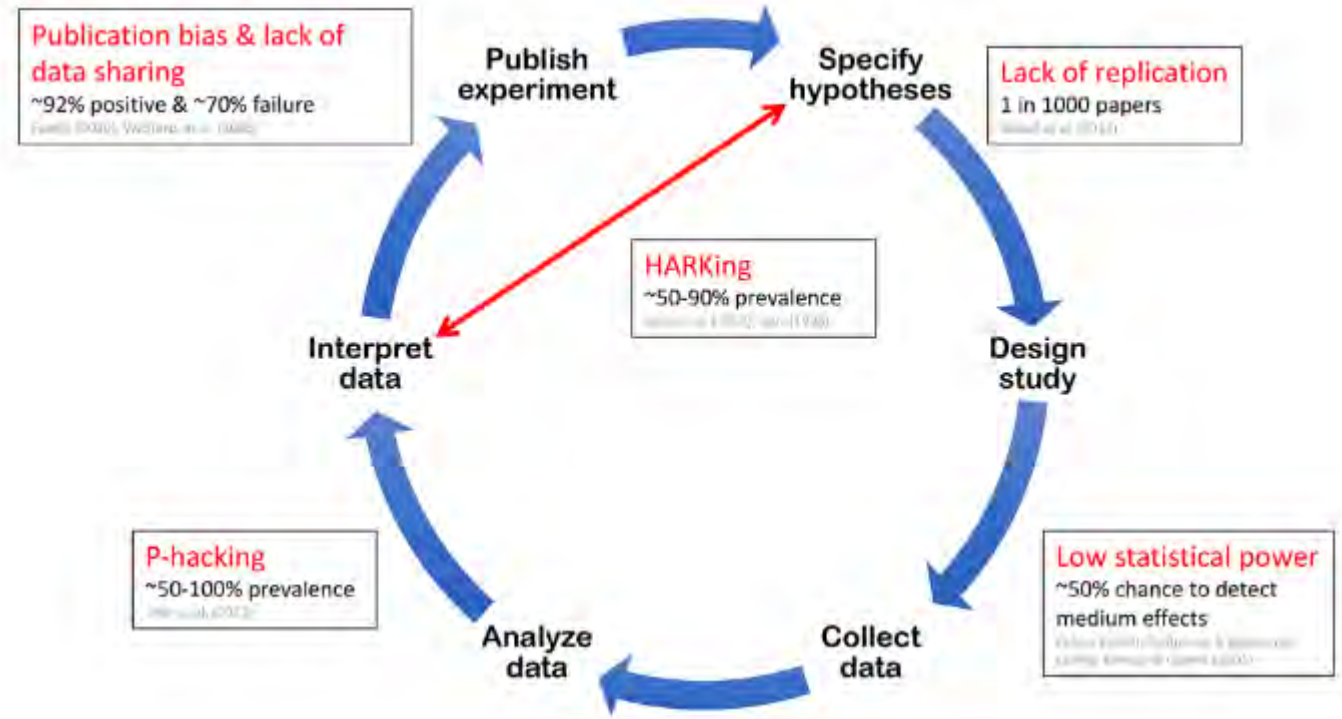
Is the best way of incentivising open scholarship to measure it? Lizzie Gadd is not so sure.

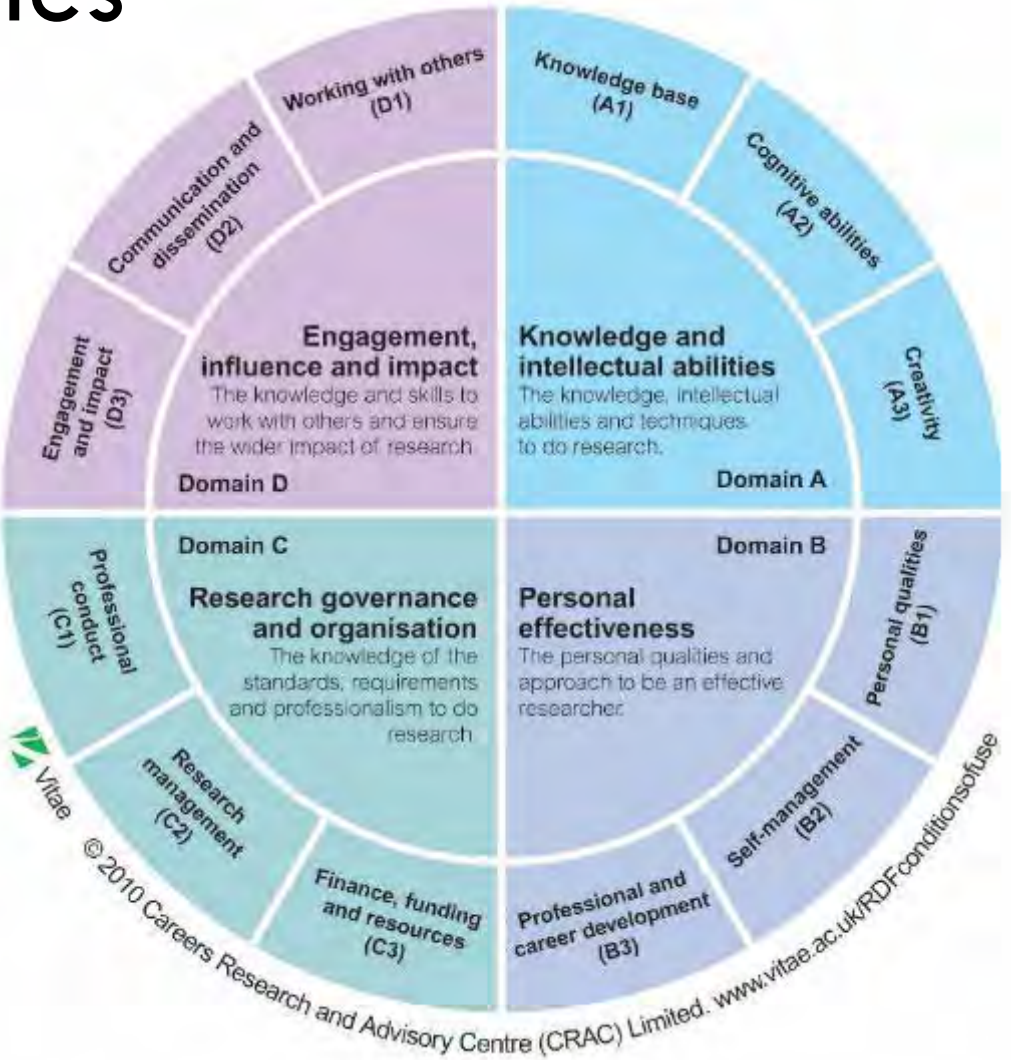
1. **Openness and quality are not the same thing**
2. **Measuring openness and quality leads to double the metrics**
3. **Is openness mature enough to be measured?**
4. **Openness should be its own reward**

scopes inorms research evaluation group

"As a general rule of thumb, we suggest the use of quantitative indicators for quantitative things: publications, money, citations and students, and qualitative indicators for qualitative things: excellence, quality, value, impact." – Lizzie Gadd

Exploring how to better capture process, behaviours and competencies





COS 10 YEARS
— CENTER FOR OPEN SCIENCE —
Science Works Best in the Open

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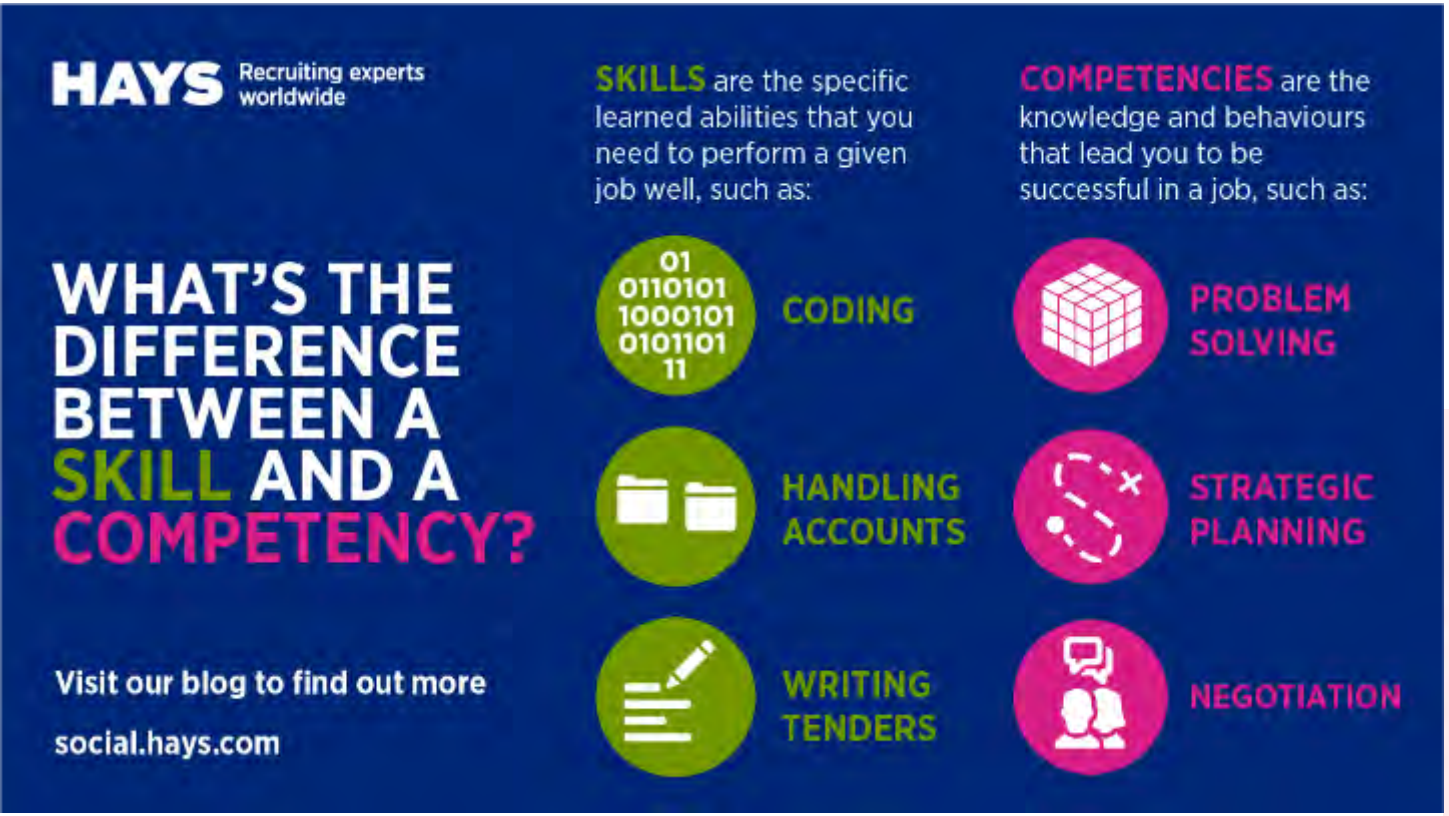
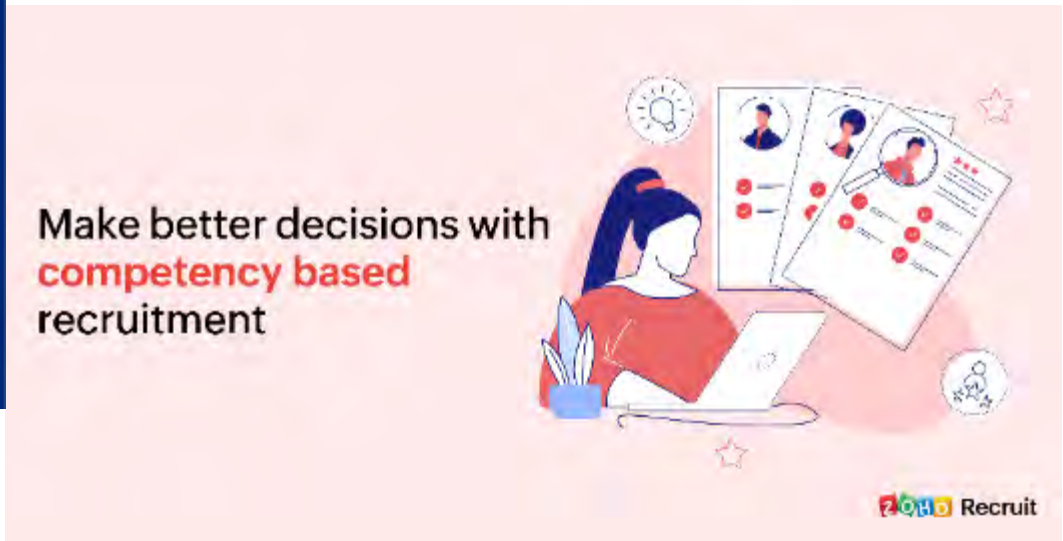
Competency-based approaches are prevalent in other sectors…





… but are underused in assessing research process and culture in academia

Open science – *can you give an example of where others have build on your data or research and highlight any specific efforts on your part for them to do so?*

Research integrity – *can you give an example of an occasion where you had doubts about soundness of your own work or that of a colleague, how did you address this and what was the outcome?*

People management – *can you give an example of where you had to motivate an employee who was showing performance issues, how did you go about this and what was the outcome?*

Collaboration / teamwork – *can you give an example of a situation where you had a disagreement with a colleague, how did you handle this and what was the outcome?*

Financial management – *can you give an example of a situation where you experienced challenges delivering a project to time and/or budget, how did you resolve these?*

Could also lead to…
- decreasing the gap between academic and support / research management staff
- improving two-way intersectoral mobility

Challenges for introducing competency-based approaches

"Quantitative approaches are objective, qualitative approaches are subjective"

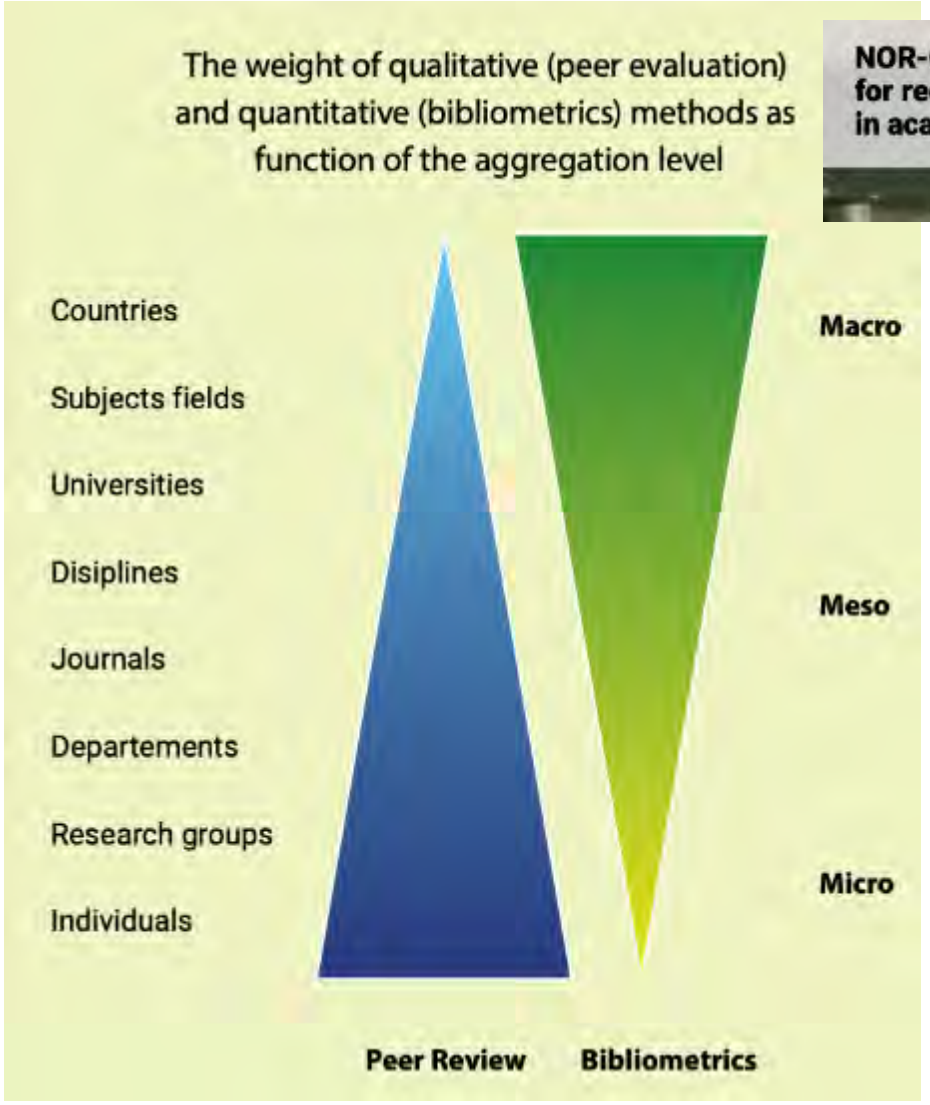
"We cannot hire people because they are 'kind'"

"People can just invent their answers"

"We'll end up hiring the people who can bring the most convincing stories"

- **Quantitative metrics are not bias-free** (since there are biases throughout the publication process), and hence not objective – all forms of assessment are subjective to some extent
- **Being able or competent is not the same as being kind**
- **People also invent data** (which arguably is worse)… - the benefit of narratives is that you likely will still learn a lot whether truthful or not
- **No one would suggest these as the only tool**, of course peer review and other existing practices that the community deems appropriate and valuable should be retained

Utility of qualitative/quantitative assessment methods at different aggregate levels



"Bibliometrics do not understand varying contexts" - Metrics in individual-level assessments - Advice to research organizations and their leadership from The National Board of Scholarly Publishing (Norway)

more than our rank

an inorms initiative

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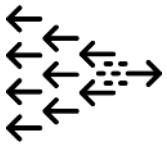
What I hope you'll take away today

- **Research assessment reform is a central lever** to maximising research quality and impact and **to improving research culture** (if it can result in better aligning science and career success)
- Recognising broader contributions and **reliance on qualitative assessment methods** are **central to research assessment reform** (and many organisations have committed to *this* reform)
- Exploring 'new' **qualitative methods** in particular **presents opportunities for better assessing how research is done** (but lots of efforts will be needed to overcome challenges with their development, acceptance and implementation)

How can individual researchers contribute to research assessment reform?

Join the conversation – *organise a café culture discussion*

Share your insights and opinions – *participate in research on research*



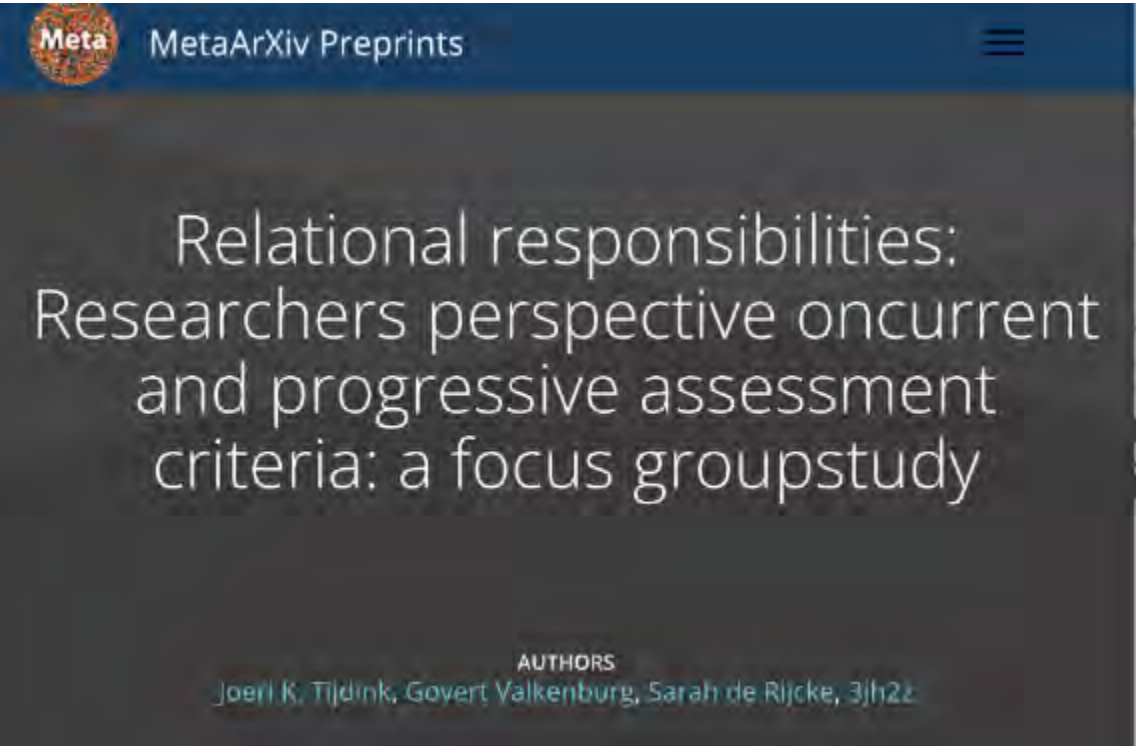
Change expectations – *help shape what success means*

Become an ambassador for change – ***raise awareness of DORA and coara.eu***

Consider broad criteria in research(er) assessment – *be a responsible assessor*

Stroobants K. (2021) https://doi.org/10.1038/d41586-021-01208-3

*(Biomedical) researchers suggest rewarding team effort, providing 360 feedback and use of narratives for **assessment of relational responsibilities** (collaboration, supervision, teaching)*



- **relational responsibilities should ideally play a more prominent role in future assessment criteria** as they correspond with and aspire the practice of responsible research
- participants gave several suggestions how to make these skills quantifiable and assessable
- **the development of these criteria is still in its infancy**, implementation can cause uncertainties among those assessed and consequently, future research should focus on how to make these criteria more tangible, concrete and applicable in daily practice