Personal reflection – Reforming research assessment

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A little bit about me...
Research evaluation

Flanders overrates impact factors

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A renewed decree on research funding last year by the government of Flanders in northern Belgium advised that 40% of research evaluation should be based on bibliometric data. This involves a complex calculation that includes the number of publications and citations, and the impact factors for the journals of publication (see go.nature.com/mr9sr; in Dutch). We question the merits of this strategy, given the debatable value of impact factors in gauging research quality (see, for example, B. Alberts Science 340, 787; 2013).
‘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.’
Broadening definitions of success in academia is a central lever for improving research quality and research culture
Improving research quality & culture

Why? To counter negative consequences of 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] and improve research quality

How? Highly competitive environment combined with the very narrow definitions of success have emerged as root causes of poor research culture → Broadening definitions of success and reducing competition as central levers to improving research culture and quality

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Reforming research assessment provides opportunities to broaden definitions of success and improve research quality
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.
Various reasons for organisations to commit to research assessment reform

To further support the quality of research and the attractiveness of research environments, due to a variety of reasons, including:

i) to ensure assessment practices stay relevant as research processes and the expectations of research evolve

ii) to allow research assessment to support positive research cultures; and

iii) to live up to the increasing demands placed on research by the many societal, environmental, democratic, and economic challenges humanity faces

Assessment practices as a barrier to progressing open science as a contributor to increased momentum
Opportunities to ensure research assessment supports the transition to open science
Align science success with career success

Publishing open access is...

Sharing your full data and detailed methods is...

Credit: Noémie Aubert-Bonn OASPA Webinar: PhD students take on openness and academic culture
Recognising open science in practice

Open Research Programme
A five-year programme supported by Research England, UKRN institutional members and project partners

Open and Responsible Researcher Reward and Recognition (OR4)
Our initial steps are to (i) conduct a landscape and stakeholder review and (ii) convene an advisory group including the key players such as DORA, Leiden, the LIS-Bibliometrics community, the EC, Global Research Council and UNESCO. This work is well underway. We will then build from existing work to develop a guide/checklist, maturity framework and self-assessment tool. Finally, we will develop training modules for professionals and others in institutions, and embed these in the programme’s training workstream 1.

Explore the first Open Science Indicators dataset — and share your thoughts

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Challenges to recognising open science

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."

"I convinced my supervisor to publish our results open access and as a result we started an exciting collaboration. Our collaborator would not have picked up on our research if it would have been behind a paywall."
Opportunities to ensure research assessment supports equality, diversity and inclusion
Lifting barriers to inclusion & diversity

Academic funding structures: current short-term funding and contracting structures, combined with current definitions of scientific excellence and success, are creating uncertainty and unnecessary amounts of pressure.

Academic culture: inconsistencies in the quality and accountability of management, poor sponsorship and recognition opportunities for women, lack of transparency in recruitment and promotion processes, unequal allocation of workloads, overloading female chemists with academic citizenship activities, and reported cases of bullying and harassment are driving talented people elsewhere.

Balancing responsibilities: practical barriers that have impacts at different stages in chemists’ careers, a lack of opportunity for part-time and flexible working, plus a lack of understanding and respect for caring responsibilities are forcing individuals to choose between a career and other demands on their time.

These challenges are not specific to one gender. However, it is clear that they disproportionately affect women.
Lifting barriers in practice

The IRC introduced a process to ‘blind’ applications and the assessment process to gender in 2014. IRC staff and stakeholders believe that this has made a considerable contribution to an increase in the award rate for women since that date. Future work to ensure that gender is not indirectly revealed during the assessment process (through, for example, additional requested materials such as CVs, gendered pronouns in references) is to be encouraged.
Opportunities to ensure research assessment supports sustainable careers for researchers
Ensure research assessment underpins sustainable researcher careers

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Opportunities for researcher careers

More diverse profiles

Increased porosity

Better prepared for range of careers
Career diversification in practice

Diversifying and vitalising career paths

We enable more diversity in career paths and profiles for academics.

More diverse profiles

Increased porosity

Better prepared for range of careers

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Other changes will be needed alongside assessment reform

Reform of assessment practices alone will not in itself sufficiently reduce the precarity of academic research careers.

It will be important to evaluate changes and ensure they do not cause unintended consequences; the Agreement envisions evolutive assessment.
Opportunities can only materialise if stakeholders across the research landscape collaborate and move in a shared direction.
The role of funders

“Funders and academic institutions do much to set the social and cultural context in which research occurs, and academia’s reward and promotion systems shape the choices of scientists at all stages of their career.” Malcolm R. Macleod et al.

“Funders are the one stakeholder not ensnared in the metrics and rankings that have trapped researchers, universities and journals.”
The role of institutions

San Francisco Declaration on Research Assessment

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.

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Collaboration between stakeholders (national and international) is essential

• Progress across research organisations and countries has been uneven, and ongoing efforts are fragmented. Collaboration on research assessment reform will allow to move forward on the basis of common goals and principles. This will also diminish the perceived ‘first-mover-disadvantage’ involved in changing a culture of research.
• Exchange of information and mutual learning, and access to tools, networks and best practice examples will avoid duplication of efforts and for organisations that have not yet engaged in reform to learn from successful ideas and practices and build capability swiftly.
• Collaboration will avoid contradictions across assessment systems, types and purposes. It will enable the development of a coherent assessment ecosystem that supports mobility of researchers.
The CoARA

- Signatories of the Agreement for reforming research assessment join the Coalition on Advancing Research Assessment (CoARA) to enable systemic reform of research assessment based on shared commitments and with an agreed timeframe.
- The work of the CoARA is envisioned via working groups, operating as ‘communities of practice’, offering space for collaboration and mutual learning.
- The CoARA will seek complementarities and synergies and to avoid fragmentation and contradictions (international scope).
- The CoARA was launched on 1st December 2022 and will soon announce the process for the set-up of working groups. 
Thank you

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