

RESEARCHER ASSESSMENT

One in a series of A3 discussion primers about tricky topics in research quality, integrity, and academic culture.

Assessing what matters

When we assess researchers (e.g. in hiring, funding, and promotion), presumably we want to reward good practices, deter bad practices, and conduct our assessments in a fair and equitable way. This matters! Our culture is at stake. As Elizabeth Gadd put it, *"We are utterly bonkers if we do not prioritise creating the most fertile environment for the best, brightest, and most creative minds of our generation to do their best work."* [1] Let's discuss how we can do this better.

Broadly speaking, what are the academic practices and attitudes that we should reward? What are practices we should try to deter? How well do you think our current reward systems and incentive structures do this?

Implications for research integrity

The metrics we use to assess research have implications for research quality and integrity. For example, the 'publish or perish' culture is part of what fuels shoddy scholarship and even scientific fraud. [2] The Hong Kong Principles (2020) were designed to ensure *"that researchers are explicitly recognized and rewarded for behaviors that strengthen research integrity."* [3] What do you think of these five principles?

- 1 Assess researchers on responsible practices from conception to delivery, including the development of the research idea, research design, methodology, execution, and effective dissemination.
- 2 Value the accurate and transparent reporting of all research, regardless of the results.
- 3 Value the practices of open science (open research)—such as open methods, materials, and data.
- 4 Value a broad range of research and scholarship, such as replication, innovation, translation, synthesis, and meta-research.
- 5 Value a range of other contributions to responsible research and scholarly activity, such as peer review for grants and publications, mentoring, outreach, and knowledge exchange.

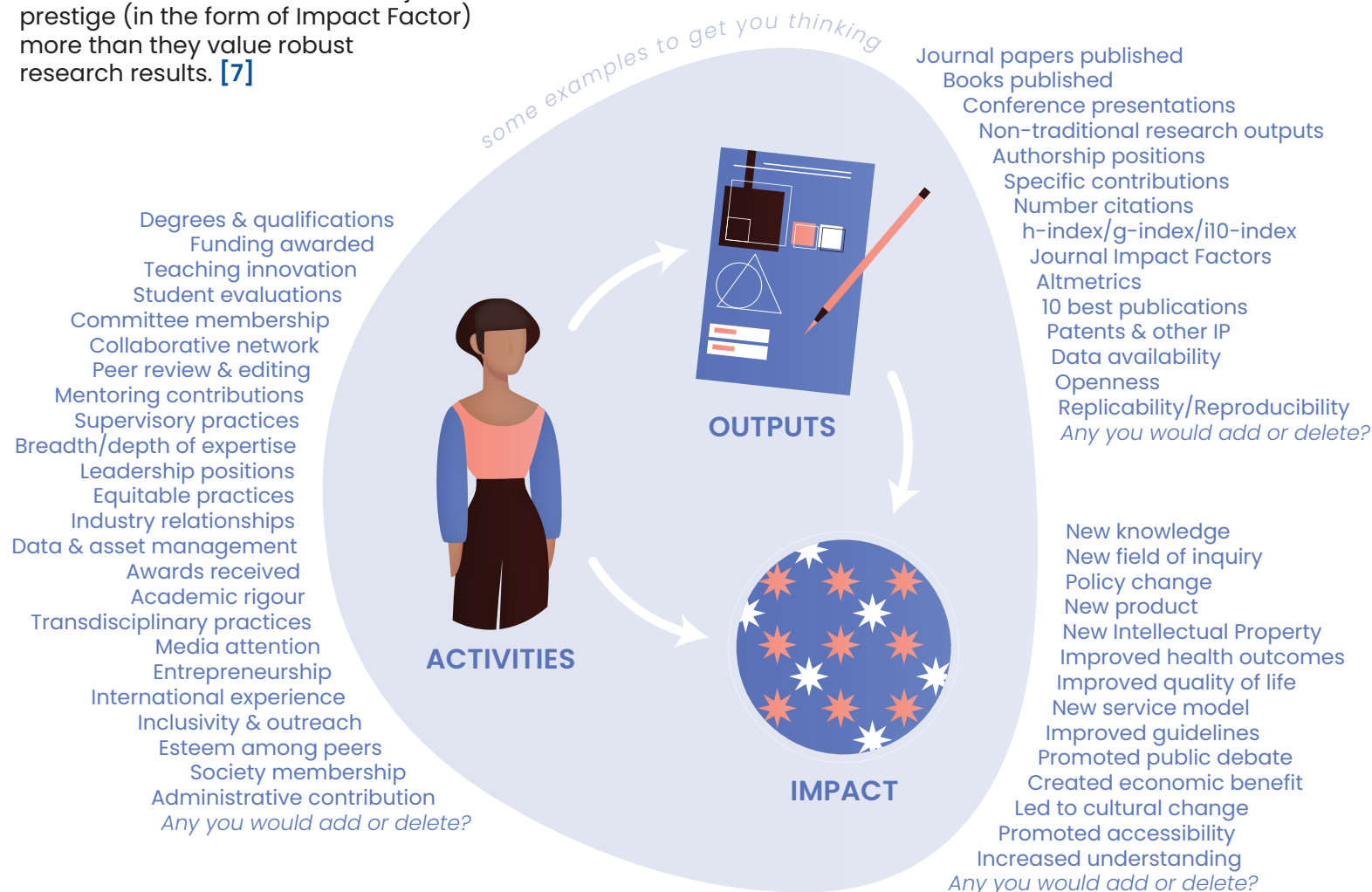
Measurability

We cannot systematically assess something if it cannot be measured. Of course, there are many different ways that we could try to measure academic performance. Recent literature calls for an *"integrated approach"* to strike *"a balance between quantitative and qualitative methods..."* [4] DORA has useful guidance about developing indicators. [5]

Consider the example metrics that surround the large diagram. Which of them can be measured quantitatively? How about qualitatively? Are there any that cannot be measured at all? Are there any important metrics missing?

Publication metrics & impact

When researchers and institutions speak of 'impact', quite often what they mean is not any real social benefit or change, but rather quantitative metrics about a researcher's publications and citations, such as their h-index or the Impact Factor of the journals in which they have published. Some argue that Impact Factor is a very poor proxy for assessing the quality of a researcher's publications. [6] The obsession with journal metrics is worrying, since there's evidence that researchers value journal prestige (in the form of Impact Factor) more than they value robust research results. [7]



Equity

"The use of proxy measures... preserves biases against scholars who still feel the force of historical and geographical exclusion from the research community... Rethinking research assessment... means addressing the privilege that exists in academia, and taking proper account of how luck and opportunity can influence decision-making more than personal characteristics such as talent, skill and tenacity." [8]

At our institution, how do the measures we use to assess researchers affect equity and diversity?

Learn about some important initiatives in this space. See what you think. You may like to get involved. Is your institution a signatory to DORA? Have you heard about narrative CVs? Many funders are now using these.

What do you think about publication metrics? Are some better than others? How can we use them responsibly in research assessment?

Important initiatives

DORA: *"The Declaration on Research Assessment (DORA) recognizes the need to improve the ways in which researchers and the outputs of scholarly research are evaluated."* url: <https://sfidora.org/>

CoARA: The Coalition for Advancing Research Assessment's 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."* url: <https://coara.eu/>

You may also like to look up the Leiden Manifesto for Research Metrics (2015), Almetrics: a Manifesto (2010), and Metric Tide (2015).

References

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- [3] Moher, D., et al. **The Hong Kong Principles for assessing researchers: Fostering research integrity.** 2020; *PLOS Biology*. doi: <https://doi.org/10.1371/journal.pbio.3000737>
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- [5] DORA. **Guidance on the responsible use of quantitative indicators in research assessment.** 2024. doi: <https://zenodo.org/records/13844873>
- [6] Chawla, D. S. **What's wrong with the journal impact factor in 5 graphs.** 2018; *Nature index*. url: <https://www.nature.com/nature-index/news/w-hats-wrong-with-the-jif-in-five-graphs>
- [7] Gonzalez Bohorquez, N., et al. **Researchers are willing to trade their results for journal prestige: results from a discrete choice experiment.** 2024; *OSF Preprints*. Preprint doi: <https://doi.org/10.31219/osf.io/uwt3b>
- [8] Hatch, A. & Curry, S. **Research Culture: Changing how we evaluate research is difficult, but not impossible.** 2020; *eLife*; 9. doi: <https://doi.org/10.7554/eLife.58654>
- [9] Himanen, L., et al. **The SCOPE framework – implementing ideals of responsible research assessment.** *F1000Research*, 2024, 12:1241, doi: <https://doi.org/10.12688/f1000research.140810.2>

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