Fostering Open Research through Responsible Research Assessment

READING OPEN RESEARCH AWARD 2021

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Recent events do not give me hope, but they do give me purpose

---Kathleen Fitzpatrick, The Generous University
A moment of opportunity? Concern has intensified

- the misapplication of narrow criteria and indicators of research quality or impact
- has reduced the diversity of research missions and purposes
- the systemic biases against those who do not meet - or choose not to prioritise - narrow criteria and indicators of quality or impact
- these biases have reduced the diversity, vitality and representative legitimacy of the research community
- a diversion of policy & managerial attention to things that can be measured, at the expense of less tangible or quantifiable qualities, impacts, assets and values
Among the ways in which science has changed over the past century and a half, three loom large. First, it is no longer driven by lone figures labouring in their laboratories, but has become a team effort that spans labs, departments, disciplines, institutions and continents. Second, it often relies now on data sets so vast that human brains cannot hope to hold or parse them all. Third, it increasingly confronts issues of global reach and even existential urgency — from climate heating and the need for a carbon-neutral economy, to epidemics and water security.

Philip Ball, Nature, 5 November 2019
“Never before in the history of humanity have so many written so much while having so little to say to so few”

Philip Ball, Nature, 5 November 2019
Streetlight effect indicators
Space of problems

Space of research

Research well-illuminated by indicators
Reduced diversity of research efforts...

... contraction of research space
This is the move we should facilitate
The purpose of open research is to improve research, in cultures, in practices and in products.
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
Global Research Council (GRC)
Survey on RRA
Methodology

Online survey:

- 23 questions
- Builds on Science Europe questionnaire on RA practices 2019
- Open from September-October 2020
- Completed by 55 organisations - 46% response rate

<table>
<thead>
<tr>
<th>Geographical Region</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa and Middle-East</td>
<td>10</td>
<td>18.2</td>
</tr>
<tr>
<td>(Sub-Saharan Africa, North Africa &amp; Middle East)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>14</td>
<td>25.5</td>
</tr>
<tr>
<td>Americas</td>
<td>10</td>
<td>18.2</td>
</tr>
<tr>
<td>Europe</td>
<td>21</td>
<td>38.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 1: Respondents by geographical region*
### Research Assessment Indicators

<table>
<thead>
<tr>
<th>Total</th>
<th>Currently Using</th>
<th>Considering in the Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication Outputs</td>
<td>100%</td>
<td>94%</td>
</tr>
<tr>
<td>Previous funded research projects</td>
<td>94%</td>
<td>84%</td>
</tr>
<tr>
<td>Non-publication outputs</td>
<td>85%</td>
<td>76%</td>
</tr>
<tr>
<td>Participation in conferences</td>
<td>83%</td>
<td>72%</td>
</tr>
<tr>
<td>Awards</td>
<td>81%</td>
<td>71%</td>
</tr>
<tr>
<td>Participation in international research projects</td>
<td>88%</td>
<td>69%</td>
</tr>
<tr>
<td>Services for research community</td>
<td>77%</td>
<td>55%</td>
</tr>
<tr>
<td>International character of proposed team</td>
<td>78%</td>
<td>52%</td>
</tr>
<tr>
<td>Public engagement activities</td>
<td>65%</td>
<td>47%</td>
</tr>
<tr>
<td>Mentoring activities</td>
<td>46%</td>
<td>44%</td>
</tr>
<tr>
<td>Teaching activities</td>
<td>59%</td>
<td>44%</td>
</tr>
<tr>
<td>Internal responsibilities within research organisation</td>
<td>55%</td>
<td>40%</td>
</tr>
<tr>
<td>Promotion diversity &amp; inclusion</td>
<td>69%</td>
<td>39%</td>
</tr>
<tr>
<td>Open access publications</td>
<td>78%</td>
<td>33%</td>
</tr>
<tr>
<td>Data curation conducted by applicant</td>
<td>72%</td>
<td>31%</td>
</tr>
<tr>
<td>Open research data</td>
<td>75%</td>
<td>29%</td>
</tr>
<tr>
<td>Knowledge transfer / commercialization</td>
<td>12%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Figure 3: Research assessment indicators (to be) used by GRC participating organisations who responded to the survey (n=50, missing n=5)*
Open Research: from an initial focus on Open Access to a more holistic focus on fostering a healthy research culture
UNESCO Recommendation on Open Science

A consequential instrument that takes Open Research to the global level.
Definition of ‘Open Science’ in Recommendation

• an inclusive construct that combines various movements and practices aiming to make scientific knowledge openly available, accessible and reusable for everyone
• to increase scientific collaborations and sharing of information for the benefits of science and society
• and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.
5 key pillars

1. open access to scientific knowledge
2. open infrastructures
3. open communication
4. open engagement of societal actors
5. open dialogue with other knowledge systems
Key Objectives Recommendation

- Promoting a common understanding of Open Research, associated benefits and challenges & diverse paths to Open Research;
- Promoting an enabling policy environment for Open Research;
- Developing Open Research infrastructures and services;
- Investing in human resources, education, digital literacy and capacity building for Open Research;
- Investing a culture of Open Research and aligning incentives for Open Research;
- Fostering innovative approaches for Open Research at different stages of the scientific process;
Key Objective (v): Fostering a culture of Open Research and aligning incentives for Open Research

- Combine efforts of many different stakeholders
- Review assessment & career evaluation systems to align with Open Research
- Promote responsible evaluation and assessment systems
  - # quality over quantity
  - # all relevant research activities and scientific outputs
  - # evidence of impact and exchange
  - # diversity of disciplines and different career stages
Key Objective (v): Fostering a culture of Open Science and aligning incentives for Open Science

Ensure that the practice of Open Science is a known, well-understood and standardized element in academic recruitment and promotion criteria

Encourage funders, research institutions, journal editorial boards, learned societies and publishers to adopt policies that require and reward the open access to scientific knowledge

Ensure diversity in scholarly communications -- principles of open, transparent and equitable access -- supporting non-commercial publishing models and collaborative publishing models with no article processing charges or book processing charges
Timeline UNESCO Recommendation

- UNESCO’s General Conference decided to elaborate a draft Recommendation in Nov 2019
- The first draft was sent to UNESCO Member States in September 2020
- Final draft sent to UNESCO Member States in March 2021
- Examination by technical and legal experts in May 2021
- Approved draft approved will be submitted to Member States in August 2021, with a view to its adoption by the General Conference at its 41st session in November 2021
WHO WANTS CHANGE?

WHO WANTS TO CHANGE?
Open Research in 2021: Reasons for optimism!

• Growing slew of initiatives
• Lively and progressive engagement with Open Research
• Is already impacting funder practices worldwide
• And is also impacting universities!
Open Research is a joint (ad)venture
I’m looking forward to learning from Reading’s next steps!

THANK YOU
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