Research Impact

FRAMEWORKS OF ASSESSMENT
Reluctant facilitators

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• Tri-Agencies, CFI, CARL and other research institutes have signed DORA

• What is DORA?
  1. Eliminate the use of journal-based metrics eg. journal impact factors
  2. Research assessed on own merits
  3. Capitalize on online publications
Research assessment: Frameworks & Challenges

**A framework**: a system that combines a **variety of indicators** to get a picture of research activity as a whole.

**Challenge**: Any assessment framework will impact on the kind of research that gets done and the kind of choices individual researchers make -- there are **intended** and **unintended** outcomes.

**Risk**: systems are vulnerable to some kind of gamification: what we measure becomes what we value. This goal displacement is an unintended effect that results in perverse incentives.

**Mitigation**: The challenge when developing a research assessment framework is mitigating this.
## Indicators

### Academic impacts

<table>
<thead>
<tr>
<th>Kind of impact</th>
<th>Indicators</th>
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| **Scholarship** | • Bibliometric indicators (e.g. citation data)  
• Downloads from Open Access repositories  
• Citations in grant applications  
• Acknowledgements  
• Prizes, awards, grants  
• Reputation as measured by survey  
• Post-publication peer review (book reviews, dedicated symposia)  
• Juried exhibitions & performances |
| **Capacity** | • Number & quality of experiential learning/research opportunities for students  
• Surveys of students and alumni  
• Employer surveys  
• Integration of research as a learning outcome in courses  
• Number of PhD students graduated |

### Impacts on society

<table>
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| **Practice and policy** | • Invitations to participate as an expert witness/advisor, or on an expert panel or committee  
• Citations in government documents  
• Consulting for governments or think tanks  
• Commissioned reports |
| **Society and culture** | • Number & quality of partnerships between researchers & community groups  
• Requests for consultancy or advice from community groups  
• Media coverage of research  
• Requests for media appearances  
• Engagement of the public at events  
• Research-related social media  
• Public use of research-based web resources on social & cultural issues |
| **Economy** | • Advisory roles and board memberships  
• Revenue opportunities and cost savings in the public, private, and not-for-profit sectors resulting from application of research  
• Income derived from patents, patent licensing, copyright & trademarks  
• Consulting contracts |
Frameworks: Using the indicators

- Example framework
  UK Research Excellence Framework (REF)
  - Outputs - scholarly outputs quant & qual
  - Impact - societal impacts
  - Environment - research context

REF Implementation

Output indicators
  - # publication per faculty, disciplinary related citations
  - REF committee reviews all the outputs and ranks departments
## Best Practices for a framework

<table>
<thead>
<tr>
<th>Category</th>
<th>Practice</th>
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<tbody>
<tr>
<td>Quant &amp; Qual</td>
<td>Including both qualitative and quantitative indicators</td>
</tr>
<tr>
<td>Multiple indicators</td>
<td>Using multiple indicators instead of only one</td>
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<tr>
<td>Discipline-specific</td>
<td>Defining impact broadly and using a flexible approach regarding disciplines</td>
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<tr>
<td>Stakeholders</td>
<td>Giving researchers a leading role in the system and considering them among its primary stakeholders</td>
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<tr>
<td>Collective impacts</td>
<td>Including indicators about collective impacts (e.g. those by a team, field, or discipline)</td>
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<tr>
<td>Institutional support</td>
<td>Underpinning the system with institutional supports that prevent it from taking a disproportionate amount of researchers’ time</td>
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Implications for Canada

- Participation in the discourse is key
- Tri-Agency signed to DORA signals that conversation has already started
- Conversations at CARA indicate that some universities are developing frameworks internally
- Future CARA working groups and Canadian Science Policy Conference discussions
Implications for Carleton University

Developing our own framework

Who are the Carleton University stakeholders?

Any conversation at CU need to be very intentional:

- Choose institutional champions - Deans?
- Provide a framework for discussion: Giving researchers a leading role in the system and considering them among its primary stakeholders
- Facilitate faculty participation, at faculty or departmental level, discipline specific
- Develop a CU position, enable decision makers to participate in the national fora
ROSI's role

- Ladder 1: Rankings – institutional pressure
- Ladder 2: Academic development
- Scaffolding in between
  - Bridging between the ladders
  - Standing in the gap
  - What works for which disciplines and why
  - Contribute to a rising tide

Open discussion