Fostering research integrity and social relevance of research findings: The Australian context

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The brief....

- Exploring how *cultural differences* might impact the conduct of research and need to be taken into account while fostering research integrity...
- Ways we should conduct research so that the end-users of our research – governments, industry and the public – can trust and use the findings; that is how we ensure *integrity in innovation and impact*. 
### Research Integrity vs. RRI

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<thead>
<tr>
<th>Research Integrity</th>
<th>RRI</th>
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<td>Codification of behavior expected of the individual researchers within their profession to ensure trustworthy outputs, outcomes and impacts and preserve the research record</td>
<td>Codification of the dimensions required to shape, maintain, develop, coordinate and align innovation related processes, actors and responsibilities to ensure desirable and acceptable outcomes</td>
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<td><strong>Principles</strong>: humanity, accountability, reliability, transparency, duty of care, and independence in the research process</td>
<td><strong>Principles</strong>: inclusivity, reflexivity, anticipation, responsiveness, sustainability and care in the research and the use of innovation</td>
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<td>Collective responsibility of the individual and their professional societies and institutions, journals, funding agencies (trans-scientific community)</td>
<td>Cooperative responsibility through <strong>wide</strong> interdisciplinarity and <strong>deep</strong> interdisciplinarity (research and society)</td>
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<td>Focused on the present</td>
<td>Focused on the future</td>
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Responsive Research & Innovation

“...an approach that anticipates and assesses potential implications and societal expectations ... to foster the design of inclusive and sustainable research and innovation.

...implies that societal actors (researchers, citizens, policy makers, business, third sector organisations, etc.) work together ... in order to better align both the process and its outcomes with the values, needs and expectations of society.”

RRI concepts:

- 5 keys promote:
  - Ethics
  - Gender equality and diversity
  - Open access/open science
  - Science education
  - Public engagement

- Responds to societal values, needs and expectations through:
  - Anticipation
  - Reflexivity/Responsiveness
  - Inclusivity
  - Transparency/openness

Research Integrity
In Australia

Well established codes for ensuring research integrity

- Research ethics (NH&MRC, ARC, UA Guidelines)
- Gender and diversity (SAGE)
- Science education
- Open access ...

Less so, more ad-hoc

- Public/Societal engagement
- Trust in the institutions to deliver through training
Limitations

- How do we avoid a “tick the box” mentality that is developing in response to the codes?
- How do we encourage researchers to reflect critically on the broader social and ethical considerations of their research?
- What might be the unintended consequence?
Limitations

Enabling the social shaping of science and technology

- Who needs to be involved?
- Working more closely with all stakeholders (marginalized, affected, disconnected)
- How best to include them in the research process?
- What are their concerns?... environment, sustainability, safety ....
Ethics guidelines for trustworthy AI

- Human agency and oversight: AI systems should empower human beings, allowing them to make informed decisions and fostering their fundamental rights...
- Technical Robustness and safety: AI systems need to be resilient and secure. They need to be safe....
- Privacy and data governance: besides ensuring full respect for privacy and data protection, adequate data governance mechanisms must also be ensured, taking into account the quality and integrity of the data, and ensuring legitimised access to data.

Opportunities

- To ensure comprehensive training and education across institutions.
- Not only in the codes of research conduct but also to reflect on wider social and ethical implications.
- The process of research
  - Anticipation
  - Reflexivity/Responsiveness
  - Inclusivity
  - Transparency/openness
Thankyou

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