Research integrity: a landscape study
Approach and findings

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House of Commons Science and Technology Committee Research Integrity report 2018

“We recommend that UKRI commission research to understand the effects of incentives in the research system on researcher behaviour and assess where adjustments or counterbalances may be needed to support research integrity.”
Objectives

Understand the effects of incentives in the research system on researcher behaviour and organisational practices in the context of research integrity by:

- reviewing existing evidence to inform further data collection and to propose conclusions
- collection of further data to identify incentives and how they affect researcher behaviour and institutional practices
- analysing existing and new evidence of incentives and how they affect researcher behaviour and institutional practices

...so as to enable UKRI to assess where adjustments or counter-balances may be required
Project team

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The Concordat to Support Research Integrity (2019) defines research integrity as

“upholding the highest standards of rigour and integrity in all aspects of research”

Including:

- Honesty in all aspects of research
- Rigour in methods, interpretations and communication
- Transparency and open communication
- Care and respect for participants, subjects and the stewardship of research and scholarship

https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/the-concordat-for-research-integrity.aspx
Literature review

Limited data on levels of research integrity: including frequency of retractions, reporting of misconduct cases, UKRI audits of grant-holding organisations, institutions’ annual Concordat statements

Unclear whether increased frequency of issues, improved detection, or greater awareness

Considerable commentary on the influence of career-related pressures and use of metrics

Increasing interest in ‘research culture’ and the influence it may have on quality and ethical standards of research

This study is one of many ultimately aiming to encourage positive behaviours and a healthy research culture
Examples of potential incentives

Institutions and employment
- Codes of practice
- Academic job market
- Job security
- Career guidance
- Career stage

Funding and policy instruments
- Targeted research calls
- Governments’ policies
- Funders’ research strategies
- Government funding
- Public reputation of research

Research activity
- Headline seeking
- Pressure to publish
- Citation index
- Authorship
- Terms and conditions of funding
- Peer view
- Funding objectivity
- Research impact
- Open science
- Metrics/KPIs
- Research Excellence Framework
- Concordat(s)
- Length of funding
- Research intensity
- Doctoral submission rates

Interdisciplinary working
Intersectoral research
Respect for careers beyond academia
Institutional research strategy
Bullying and harassment
Mentors and role models

Performance management
Workload management
Annual objectives
RI training
Promotion and progress

Nature of the research undertaken
Reproducibility
Reputation
Research objectivity
Research ecosystem: Spheres of influence

GLOBAL

UK

INSTITUTIONAL

DISCIPLINE

LOCAL

INDIVIDUAL
What do researchers think about research integrity?

99% agree that their personal integrity drives research integrity.

94% agree they understand the levels of research integrity expected.

90% believe research integrity is compromised by others at least some of the time.

78% believe others feel tempted or under pressure to compromise on research integrity at least some of the time.
## Complex ecosystem of incentives

### TOP FIVE INCENTIVES FOR EACH CATEGORY AS RATED FOR THEIR POTENTIAL IMPACT ON RESEARCH INTEGRITY*

<table>
<thead>
<tr>
<th>Strongly positive perceived impact:</th>
<th>Positive and negative perceived impact:</th>
<th>Strongly negative perceived impact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data sharing policies and requirements</td>
<td>Media coverage and public perception of research</td>
<td>Incidents of bullying and harassment</td>
</tr>
<tr>
<td>Open access publishing</td>
<td>Research leadership and management</td>
<td>Use of journal impact factor (JIF), h-index and other metrics</td>
</tr>
<tr>
<td>Interdisciplinary research</td>
<td>How funding for specific projects is awarded</td>
<td>League tables of institutions</td>
</tr>
<tr>
<td>Professional development and training opportunities</td>
<td>How researchers are assessed for promotion during their careers</td>
<td>Institutional workload models</td>
</tr>
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</tr>
</tbody>
</table>

*Incentives phrased as asked in the survey. To some extent negatively perceived incentives can be caveated with ‘poor’ or ‘inappropriate’ (e.g. ‘poor workload models’ or ‘inappropriate use of league tables’) but not entirely.
Research culture plays a fundamental role in research integrity

Research integrity is perceived to be supported by a research culture and ecosystem that:

- Is trustworthy and inspires trust \((honest)\)
- Rewards and values the process and quality of research \((rigorous)\)
- Applies the right metrics in appropriate ways \((transparent)\)
- Facilitates flow of ideas and information \((open)\)
- Embeds continuous improvement \((respect and stewardship of research)\)
- Reduces competitive and career pressures \((care for the people of research)\)
Opportunities for all

GLOBAL  
Collective responsibility of all stakeholders – all can and should act

UK  
Culture of continuous improvement – encourage openness of research integrity issues

INSTITUTIONAL  
Research integrity upheld at all levels – raise awareness, embed and act on policies

DISCIPLINE  
Interdisciplinarity as a potential positive – have research integrity conversations across discipline boundaries

LOCAL  
Culture of continuous professional development – recognise, reward and give time for engagement

INDIVIDUAL  
High levels of personal responsibility – engage with broad range of opportunities to learn and improve
Thank you

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