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**COPE Seminar**

# **Transparent institutions: risks, challenges and opportunities**

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## Transparency is a recognised principle of research integrity



**Transparency** is a long-recognised principle of responsible research. From disclosure of conflict of interest, peer review, sharing data and authorship, the idea of transparency and its central role in demonstrating that research has been conducted responsibly and so can be trusted, is fundamental.

# Transparency is a recognised principle of research integrity

The **Singapore Statement**, produced at the 2<sup>nd</sup> World Conference on Research Integrity, lists 14 responsibilities. **Nine** relate to transparency in one way or another. For example –

**“5. Research Findings:** Researchers should share data and findings **openly and promptly**, as soon as they have had an opportunity to establish priority and ownership claims”

Others that clearly have a link to transparency are **research methods, research record, authorship, publication acknowledgement, conflict of interest, peer review and public communication.**

## Singapore Statement on Research Integrity

**Preamble.** The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken.

### PRINCIPLES

**Honesty** in all aspects of research  
**Accountability** in the conduct of research  
**Professional courtesy and fairness** in working with others  
**Good stewardship** of research on behalf of others

### RESPONSIBILITIES

- 1. Integrity:** Researchers should take responsibility for the trustworthiness of their research.
- 2. Adherence to Regulations:** Researchers should be aware of and adhere to regulations and policies related to research.
- 3. Research Methods:** Researchers should employ appropriate research methods, base conclusions on critical analysis of the evidence and report findings and interpretations fully and objectively.
- 4. Research Records:** Researchers should keep clear, accurate records of all research in ways that will allow verification and replication of their work by others.
- 5. Research Findings:** Researchers should share data and findings openly and promptly, as soon as they have had an opportunity to establish priority and ownership claims.
- 6. Authorship:** Researchers should take responsibility for their contributions to all publications, funding applications, reports and other representations of their research. Lists of authors should include all those and only those who meet applicable authorship criteria.
- 7. Publication Acknowledgement:** Researchers should acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others, but do not meet authorship criteria.
- 8. Peer Review:** Researchers should provide fair, prompt and rigorous evaluations and respect confidentiality when reviewing others' work.
- 9. Conflict of Interest:** Researchers should disclose financial and other conflicts of interest that could compromise the trustworthiness of their work in research proposals, publications and public communications as well as in all review activities.
- 10. Public Communication:** Researchers should limit professional comments to their recognized expertise when engaged in public discussions about the application and importance of research findings and clearly distinguish professional comments from opinions based on personal views.
- 11. Reporting Irresponsible Research Practices:** Researchers should report to the appropriate authorities any suspected research misconduct, including fabrication, falsification or plagiarism, and other irresponsible research practices that undermine the trustworthiness of research, such as carelessness, improperly listing authors, failing to report conflicting data, or the use of misleading analytical methods.
- 12. Responding to Irresponsible Research Practices:** Research institutions, as well as journals, professional organizations and agencies that have commitments to research, should have procedures for responding to allegations of misconduct and other irresponsible research practices and for protecting those who report such behavior in good faith. When misconduct or other irresponsible research practice is confirmed, appropriate actions should be taken promptly, including correcting the research record.
- 13. Research Environments:** Research institutions should create and sustain environments that encourage integrity through education, clear policies, and reasonable standards for advancement, while fostering work environments that support research integrity.
- 14. Societal Considerations:** Researchers and research institutions should recognize that they have an ethical obligation to weigh societal benefits against risks inherent in their work.

The Singapore Statement on Research Integrity was developed as [one](#) of the 2nd World Conference on Research Integrity, 21-24 July 2010, in Singapore, as a global guide to the responsible conduct of research. It is not a regulatory document and does not represent the official policies of the countries and organizations that funded and/or participated in the Conference. For official policies, guidance, and regulations relating to research integrity, appropriate national bodies and organizations should be consulted. Available at: [www.singaporestatement.org](http://www.singaporestatement.org)

## Transparency is a recognised principle of research integrity



But, despite this..... a failure to be transparent is often not considered research misconduct.

Resnik (2014) reviewed research misconduct definitions at 200 US universities. While many definitions extended beyond the legally required falsification, fabrication and plagiarism (FFP) (59%), very few mentioned any infractions clearly linked to transparency. A catch all – ‘other serious deviations’ – may be where failures of transparency reside (45% of definitions included this).

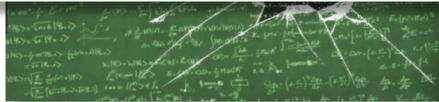
# Transparency is a 'hot topic'



**Climate science might become the most important casualty of the replication crisis**

Guest Blogger / April 22, 2016

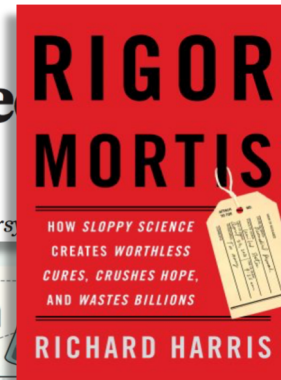
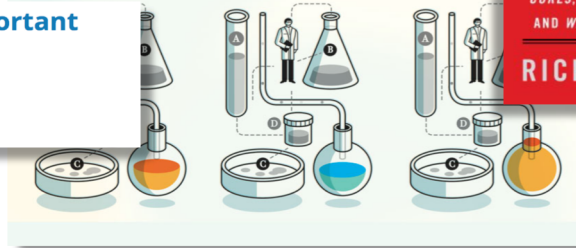
*The replication crisis in science has just begun. It will be big.*



CANCER BIOLOGY

## Reproducibility project yields muddy results

An ambitious effort to replicate cancer studies is provoking controversy

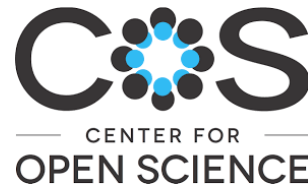


**Reproducibility questions** triggered a lot of discussion about the degree to which we can believe the findings in journal articles and books.

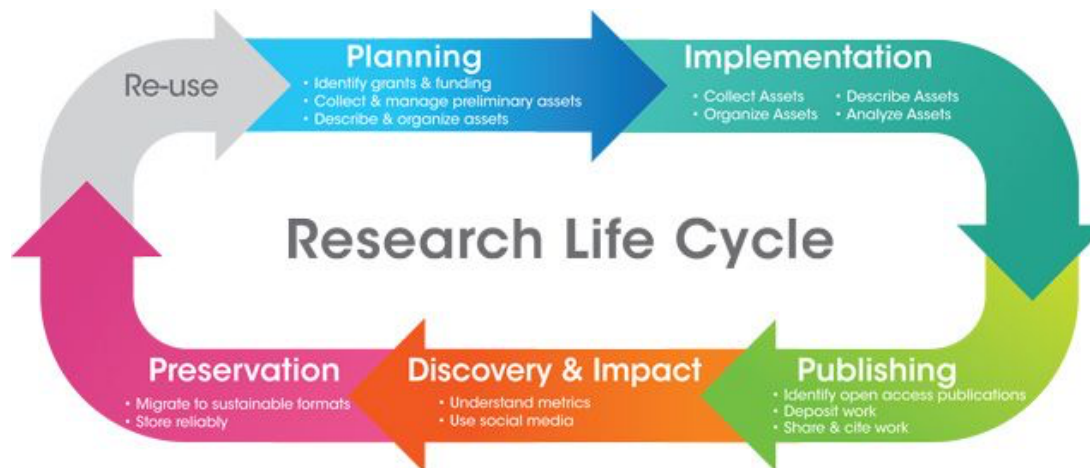
Increased transparency was often touted as the solution.

If we could see what was performed, repeat the analysis of data, check the stats...then maybe we could begin to trust research findings again.

## Transparency is a 'hot topic'



Open Science (or Research) is seen as one of the key remedies to the reproducibility crisis, but it also encourages greater responsibility in and for research across the research lifecycle.

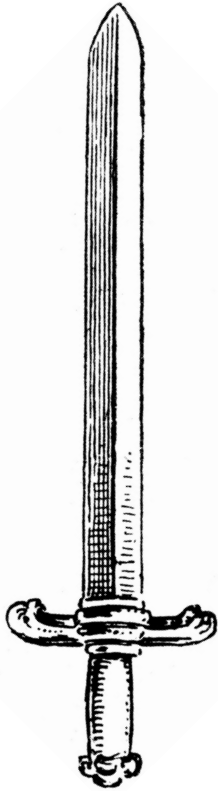




# Risks of transparency



## Transparency is a double edged sword



We recognise transparency as a fundamental principle of responsible research **(although it may not be called out so transparently).**

We have better mechanisms than ever before to be transparent in research – fast exchange of large amounts of data, data linked with images, shared computational and analytics.

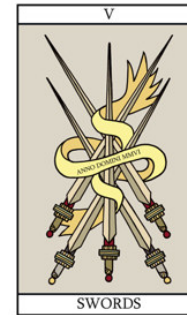


# Transparency is a double edged sword

Lewandowsky and Bishop (2016) outline some of the key risks generated by increased openness and frame them as new methods for challenging (harassing?) what they describe as inconvenient research.



They describe ten red flags to help distinguish between healthy academic debate and ‘campaigns that masquerade as scientific inquiry’.



They also discuss five double edged tools that can help improve transparency or be ‘weaponised’.

## TEN RED FLAGS

Dr A publishes a study showing that food X increases the risk of disease Y. Critics accuse her of incompetence, scaremongering and ethical violations. Do these accusations constitute harassment or healthy debate?

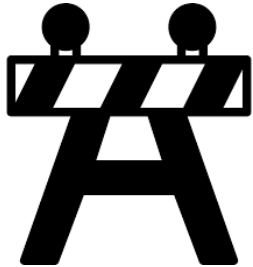
	<b>Raises red flags about researcher</b>	<b>Raises red flags about critics</b>
Expertise	Does Dr A's contested work fall outside her training or her previous publications?	Are the critics operating outside their area of apparent expertise? Do the critics refuse to engage with the peer-reviewed literature?
Conflicts	Is Dr A funded by competitors of X? Is she marketing an antidote for Y?	Do the critics have a financial interest in the results?
Communication	Did Dr A promote this work without publishing it in a peer-reviewed journal?	Do the critics attack all researchers who show that X is harmful?
Errors	Does Dr A have a track record of major errors? Has she been defensive about minor errors?	Do the critics use small errors to dismiss all of Dr A's work?
Balance	Does Dr A have a record of misrepresenting evidence? Does she dismiss counter-arguments?	Do the critics have a record of cherry-picking evidence in public statements?
Scholarship	Are results out of line with existing, reputable scholarship, if it exists?	Can the critics specify what they would regard as convincing evidence?
Transparency	Has Dr A refused to make data available? Has she ignored reasonable disclosure standards?	Are the critics making showy demands for already-public data, or for data for which patients have not consented to publication?
Track record	Has Dr A routinely promoted flashy work without peer review?	Do the critics attack scientists across disciplines on different topics? Do they have a track record of harassment or vexatious complaints?
Insults or libel	Does Dr A uniformly dismiss critics as ignorant, biased or conflicted?	Are the critics levelling personal attacks? Are criticisms from anonymous sources or 'sock puppets'?
Freedom-of-information requests	Does Dr A claim that funding sources are irrelevant? Has she erected barricades to disclosure?	Do the critics use freedom-of-information requests for private correspondence unrelated to funding?

## Five double-edged tools

Legitimate tools of scholarly exchange can be weaponized.

Technique	Use	Abuse
Call for data	Permit the replication or inspection of analyses.	Impugn scientists' integrity (when data is already available); biased re-analyses.
Social-media posts	Highlight errors or questionable practices.	Stalk, libel, intimidate or harass.
Freedom-of-information requests	Reveal hidden conflicts of interest.	Launch a fishing expedition into private correspondence.
Call for retraction	Remove unethical or erroneous work from the literature.	Discredit inconvenient results.
Complaints to universities	Redress unethical conduct.	Damage reputation.

## Transparency has its limitations, and these should remain

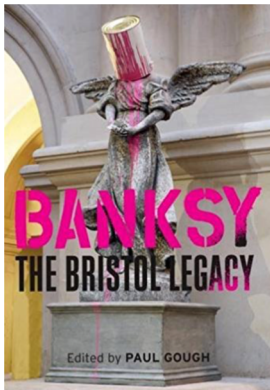


There are legitimate reasons why some limitations on transparency should remain. These come from consideration of research ethics, and privacy. While these perhaps are most obvious in biomedical or clinical research, they're also relevant to humanities and social sciences.

## Transparency has its limitations, and these should remain

Research ethics considerations mean that private or personal data cannot be shared without permission. Participants may simply not be willing to be involved in research at all if their identities cannot be kept secret.

**Is transparency more important than what we might learn from people who don't want to be identified?**



Prof Paul Gough and his research with and about “Banksy”



Research about energy poverty and the psychosocial harm that identification would cause

## Transparency has its limitations, and these should remain

As well as ethical considerations, there may be commercial or security considerations that challenge transparency aspirations.

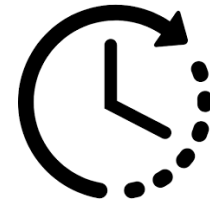
Also, some data take time to evaluate, and researchers should not be required to disclose or make available data until such time as they are ready. This would typically be post-publication.



Some aspects of defence research may need to remain secret



Commercial in confidence research may also need to be kept secret



Researchers need time to properly analyse their own data



# Challenges and opportunities



## Transparency needs discipline specific interpretation

Much of the debate about transparency and the related trend towards Open Science has focussed on STEM disciplines. It is reasonable to assume that there will be a need to translate the ideas of transparency and open science into different disciplines, including humanities and social sciences.



Nevertheless, there is a need to increase researcher fluency in transparency as a principle and the ways that transparency impacts on their research practice.



## Transparency needs tools

It won't be enough for an institution to say 'we are now doing our research transparently' and expect researchers to pick the idea up and implement it.



Institutions will need to work with researchers and providers to identify appropriate tools to support open and transparent research. Training and education in the use of the tools also needs to be provided.

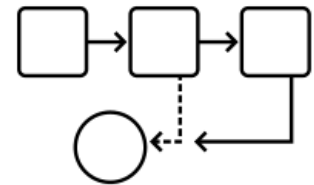
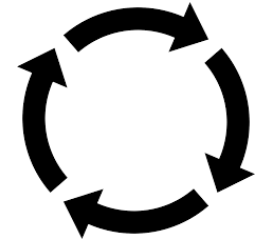


Many universities provide education and training in responsible conduct of research/research integrity, so a platform is already available. New content will need to be developed and tested.

## Transparency needs governance

The intersection between the drive for transparency and the need to maintain privacy/confidentiality and meet ethics obligations is a complicated one. The growth in the number of tools and technologies to support open and transparent research also raises questions about data governance.

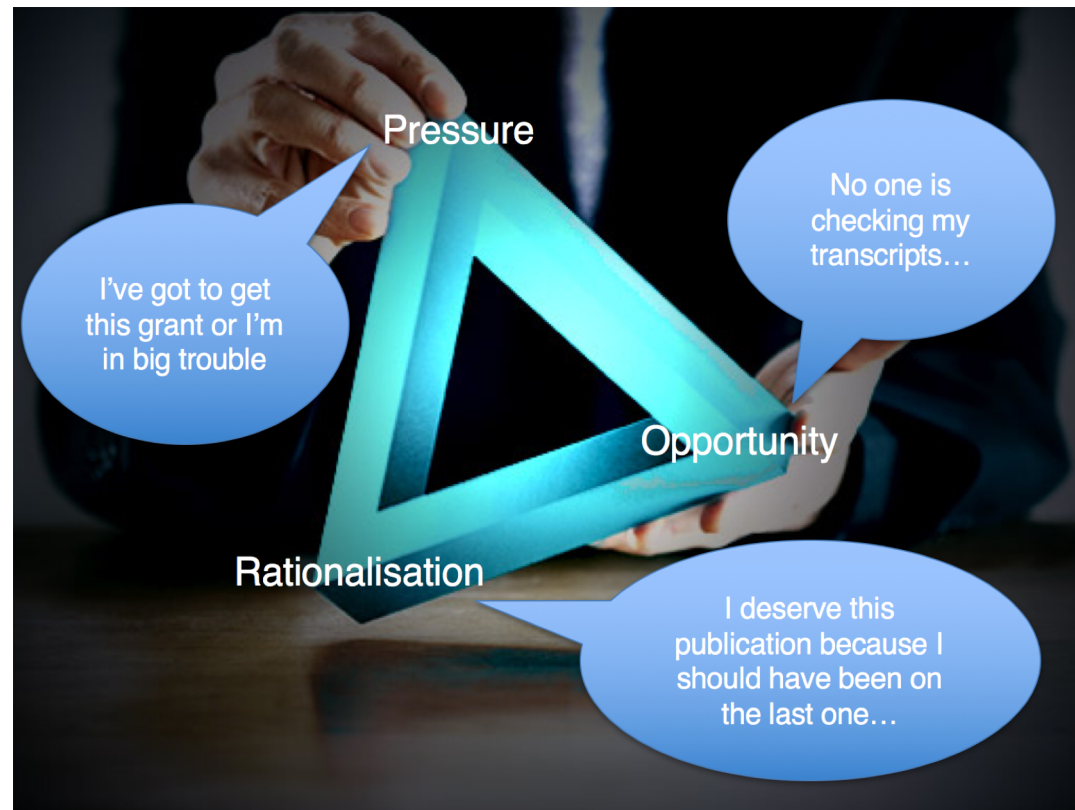
Proper governance (policies and process) need to be developed so that there is clear advice and instruction about how, when and where to apply transparency to research.

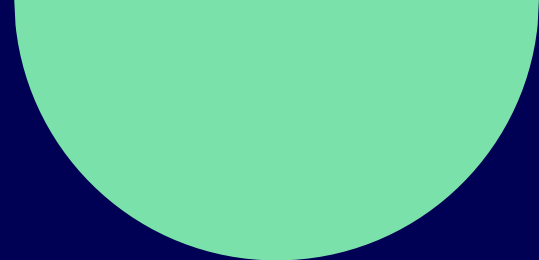


## Transparency would drive responsible research (and may make research misconduct harder)

An institutional focus together with strong signalling from leadership on transparency would:

- reinforce the importance of responsible research.
- work in support of other initiatives in research integrity, and demonstrate a commitment to research integrity.
- reduce opportunities to fabricate or falsify data.





# Summary



**Transparency is a fundamental principle, but it is best applied in support of other principles like honesty.**

**Transparency cannot be applied equally or fully across the range of research practices. Some transparency causes harm.**

**Institutions need to prepare to be more transparent, and support researchers by providing clear advice, education and tools to make their research more transparent.**

**Transparency will build trust, will support responsible research and reduce research waste. The risks can be managed, and the benefits are worth it.**

## Three transparent wishes for 2020...

Increased institutional and researcher fluency in research transparency



Great tools and governance that support researchers



Better funding for research to allow institutions to provide this support



# Thankyou

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