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Publication and dissemination of research

*A guide supporting the Australian Code for the Responsible
Conduct of Research*

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1. Introduction

This guide supports the implementation of the [Australian Code for the Responsible Conduct of Research](#) (the Code), which articulates the broad principles and responsibilities that underpin the responsible conduct of Australian research.

In particular, this guide is intended to assist institutions and researchers to adhere to relevant principles of the Code, including:

- Principle 1, ‘Honesty in the development, undertaking and reporting of research’, which requires that researchers ‘Present information truthfully and accurately in proposing, conducting and reporting research’
- Principle 2, ‘Rigour in the development, undertaking and reporting of research’, which requires that research be characterised by attention to detail and robust methodology and that researchers avoid or acknowledge biases
- Principle 3, ‘Transparency in declaring interests and reporting research methodology, data and findings’, which requires researchers to ‘Share and communicate research methodology, data and findings openly, responsibly and accurately’ and ‘Disclose and manage conflicts of interest’
- Principle 4, ‘Fairness in the treatment of others’, which requires that the work of others is appropriately referenced and cited
- Principle 6, ‘Recognition of the rights of Aboriginal and Torres Strait Islander people’, which requires that researchers ‘report to Aboriginal and Torres Strait Islander peoples on the outcomes of research in which they have engaged’
- Principle 7, ‘Accountability for the development, undertaking and reporting of research’, which requires that the consequences and outcomes of research are considered prior to its communication.

This guide aims to assist institutions to develop and maintain policies that facilitate the responsible publication and dissemination of research in accordance with responsibility 7 of the Code, and to assist those involved in research to understand and apply best practice in the publication and dissemination of research in accordance with responsibilities 23 and 27 of the Code.

The Code and this guide apply to all research conducted under the auspices of Australian institutions. These institutions vary in size, maturity, experience and organisational structure. They range from large and complex universities to small privately funded institutes. Accordingly, it is acknowledged that different institutional policies and processes are capable of fulfilling the aim of this guide and attempts have been made to ensure that there are appropriate options for flexibility in its application.

2. Publication and dissemination of research

Publication and dissemination of research is an important part of the research process, passing on the benefits to a diverse range of potential beneficiaries of research, including other researchers, research sponsors, consumers and industry, policy-makers, and the public. Methods of dissemination continue to evolve and expand, which can assist in more effectively reaching diverse audiences.

This guide applies to dissemination of traditional and non-traditional research outputs (e.g. original creative works, performances and exhibitions) and non-refereed publications (e.g. conferences, interviews, pre-prints and social media), as well as dissemination undertaken as part of applications for research grants and forms of financial support.

Information in other guides is also relevant to the publication and dissemination of research, such as: [Authorship: a guide supporting the Australian Code for the Responsible Conduct of Research](#).

3. Responsibilities of institutions

This section provides guidance on the responsibilities that institutions have in relation to the publication and dissemination of research.

3.1 Promote responsible publication and dissemination of research

Institutions must maintain good governance and management practices for responsible research conduct, including policies and mechanisms that guide and foster the responsible publication and dissemination of research in a manner consistent with the Code.

Under the Code, institutions have the responsibility to:

R3 Develop and maintain the currency and ready availability of a suite of policies and procedures which ensure that institutional practices are consistent with the principles and responsibilities of the Code.

To support transparency and responsible publication, dissemination and communication of the findings and results of research and to maximise the benefits of research, institutions should

- encourage researchers to disseminate their research widely and to all appropriate audiences
- provide guidance on the development of plans to publish, disseminate and communicate research findings and results, including the identification of appropriate avenues for publication and dissemination
- put in place mechanisms to support researchers to communicate research findings accurately and responsibly, regardless of the medium or method through which the research is published or the audience to whom it is communicated
- provide mechanisms that enable scrutiny of the research methods and reporting of findings for any bias or the inappropriate influence of participants, sponsors or other parties involved in the research
- enable researchers to take action, where required, to correct or retract their research in a timely manner.

Institutions should also establish a mechanism to notify the relevant journal/s of any need to correct the public record in a timely manner.

Under the Code, institutions have the responsibility to:

R7 Support the responsible dissemination of research findings. Where necessary, take action to correct the record in a timely manner.

3.2 Support open communication of research to a wide audience

The open publication and dissemination of research improves researchers' capacity to build on previous results, increases innovation, encourages collaboration, improves community engagement, and allows the benefits of the research to be realised. It is an expectation of public funders that institutions should encourage the widest possible dissemination of research, using effective modes, and at the earliest opportunity. Consequently, institutional policies should be consistent with the policies of relevant funders, the Code and relevant supporting guides, e.g. *Authorship* and *Management of data and information in research* and policies on open access issued by relevant funding agencies (see Additional Resources).

Consistent with international expectations that research outputs are openly available, institutions should support researchers to ensure their research outputs are openly accessible in an institutional or other online repository, or on a publisher's website.

Institutions should consider making media relations or communications officers available to researchers for the purpose of communicating research findings through all appropriate channels, including through the media. Institutions should ensure that these officers are aware of the principles and responsibilities in the Code relating to publication and dissemination, as well as those described in this guide.

When communicating about collaborative research, institutions should acknowledge partner institutions and sponsors.

3.3 Protect confidential and sensitive information and manage intellectual property

While research outputs should be made openly accessible, there are instances when publication may be restricted, delayed or limited by ethical or legal obligations, such as intellectual property arrangements, confidentiality obligations made to participants or restrictions on the publication of sensitive information. Further guidance on managing confidential and sensitive information is provided in [Management of data and information in research: a guide supporting the Australian Code for the Responsible Conduct of Research](#).

Institutions should develop and maintain policies, consistent with the *National Principles of Intellectual Property Management for Publicly Funded Research* that protect the intellectual property rights of the institution, the researcher, research trainees, and research sponsors.¹

Institutions should provide mechanisms to facilitate researchers' understanding, agreement and adherence to relevant contractual obligations and confidentiality agreements, including those that may restrict, delay or limit publication. Any agreement to restrict, delay or limit publication should not exceed the period needed to protect intellectual property and/or other relevant interests. Institutions should ensure that sponsors or other collaborators, including funders of research, do not delay or unreasonably withhold consent to publication.

3.4 Consider the potential application and consequences of publication and dissemination of research

The publication and dissemination of research can sometimes have unintended consequences for individuals and communities. Research, especially where reported in a preliminary, incomplete or summary form, may be liable to misinterpretation. Research may also be misused to cause harm to human, animal or plant health, the environment or national security.

Institutions should have policies and procedures that inform researchers of the need to consider the potential unintended consequences of research.

Institutions must have processes and guidance that assist researchers to identify and manage any potential misuse of the findings or outcomes of research, including processes to comply with legislation.²

Under the Code, a principle of responsible research conduct is 'Accountability', which requires researchers and institutions to:

P7 Consider the consequences and outcomes of research prior to its communication.

1 <https://www.arc.gov.au/policies-strategies/policy/national-principles-intellectual-property-management-publicly-funded-research>

2 Examples include the *Defence Trade Controls Act 2012* and the *Privacy Act 1988*.

3.5 Provide training for researchers

Institutions must provide ongoing training and education that promotes and supports responsible research conduct and assists all researchers, and those in other relevant roles, to follow institutional policies related to the publication and dissemination of research.

Training should include guidance and responsibilities on:

- disclosure of interests and management of conflicts of interest
- management of data and information, including secondary use of the data and information and general requirements related to privacy and confidentiality
- authorship, copyright and licensing standards
- publication ethics and standards, including how to recognise and avoid publication bias
- disclosure and sharing of findings and outcomes, including identification and management of their potential misuse
- compliance with export controls.

Under the Code, institutions have responsibilities to:

R4 Provide ongoing training and education that promotes and supports responsible research conduct for all researchers and those in other relevant roles.

R5 Ensure supervisors of research trainees have the appropriate skills, qualifications and resources.

4. Responsibilities of researchers

This section provides guidance on relevant obligations of researchers.

4.1 Disseminate research findings

Researchers have a responsibility to disseminate a fulsome account of their research. The account should include relevant negative results as well as findings that may be contrary to any stated hypothesis. Decisions about how research will be published or disseminated should not be inappropriately influenced by the nature and direction of results.³ Researchers should also take into account limitations necessitated by patent applications, legitimate publication package and fee requirements and the increased costs of presenting findings to one's peers for critical input. Patents can also be a legitimate way in which to publish research results.⁴

Under the Code, researchers have the responsibility to:

R23 Disseminate research findings responsibly, accurately and broadly. Where necessary, take action to correct the record in a timely manner.

In fulfilling responsibilities related to accuracy and timeliness (see section 4.2), completeness and transparency (see section 4.6), researchers should be aware of questionable or unscrupulous practices, such as 'predatory publishing/publications' and unreasonable delays in publication and dissemination, including unjustified publication embargoes.

³ Further guidance on avoiding reporting bias can be found in Chapter 10 of the Cochrane Handbook, <https://methods.cochrane.org/bias/reporting-biases>. See also reporting guidelines at <http://equator-network.org>.

⁴ NHMRC Open Access Policy (2018) & ARC's National Principles of Intellectual Property Management for Publicly Funded Research (2017).

Where negotiating an agreement between researchers and research sponsors that requires delivery of the research findings intended for publication to the sponsors before they undergo a peer review process, researchers may need to alert sponsors to the principles and responsibilities of the Code.

Preprints are now part of the open research landscape and their use can accelerate dissemination of research. Researchers can post a research manuscript on a public server as a preprint to allow research outputs to be available and useable prior to peer review.⁵ In choosing to do so, researchers must remain cognisant of their obligations under the Code, specifically ensuring that research findings are disseminated responsibly and accurately, and action taken, where necessary, to correct the record in a timely manner.

4.2 Ensure accuracy

Researchers must take all reasonable steps to ensure that methodology, data and findings are reported accurately and consistently with international guidelines and conventions appropriate to the relevant discipline or disciplines. Researchers must ensure that conclusions are justified by the results and any limitations are appropriately acknowledged.

Under the Code, researchers have the responsibility to:

R21 Adopt methods appropriate to the aims of the research and ensure that conclusions are justified by the results.

If they become aware of any errors or misleading information in their published research outputs, researchers should take action to correct the record in a timely manner, in accordance with the institution's policy.

4.3 Accurately disclose research support and relevant interests

Communications about research and its findings must identify the host institution(s) and all sources of support for the research.

Researchers must disclose relevant interests and manage conflicts of interests consistent with the Code and the *Disclosure of interests and management of conflicts of interest: a guide supporting the Australian Code for the Responsible Conduct of Research*. This includes fully disclosing relevant interests upon submission of publications, and consideration by researchers as to whether other actions are required to manage potential conflicts of interest.

Under the Code, researchers have the responsibility to:

R24 Disclose and manage actual, potential and perceived conflicts of interest

4.4 Cite and acknowledge relevant work

Researchers must ensure that they cite and acknowledge their own work and the work of others (whether published or unpublished) accurately and in accordance with the Code, *Authorship: a guide supporting the Australian Code for the Responsible Conduct of Research* and the conventions accepted within the relevant discipline or disciplines.

Under the Code, researchers have the responsibility to:

R27 Cite and acknowledge other relevant work appropriately and accurately.

⁵ <https://plos.org/open-science/preprints/>

Where appropriate, researchers should cite primary sources and data to ensure that credit for research is attributed fairly and to facilitate the easy location of the origin of a work, a finding, an idea, or research data.

Researchers may seek to publish the same research in more than one publication, such as in an original journal article, followed by publication in book form and/or in anthologies, collections and translations. An author who submits substantially similar work to more than one publisher, or who submits work similar to work already published, must disclose this at the time of submission. Disclosure must also be included in the work itself to prevent any such re-use having the effect of portraying previously presented ideas or data as new.

4.5 Obtain permission for republishing

Researchers must take all reasonable steps to obtain permission from the original publisher or copyright owner before republishing their own or others' research findings, taking into account any relevant legal agreements.

4.6 Foster transparency in research and publications

Researchers and institutions are responsible for fostering transparency in research. Researchers should, where appropriate, consider registering their research plans or protocols prior to the commencement of research.⁶

For any research project that prospectively assigns participants to one or more health-related interventions to evaluate the effects on health outcomes, researchers must register the project as a clinical trial on a publicly accessible register complying with international standards before the recruitment of the first participant.⁷ Other human and animal research also can be registered on international databases.⁸

Under the Code, a principle of responsible research conduct is 'Transparency', which requires researchers and institutions to:

P3 Share and communicate research methodology, data and findings openly, responsibly and accurately.

At the conclusion of a project, and where possible and appropriate, researchers should publish or allow interested parties to access and refer to research data, survey instruments, coding manuals and the tools and resources that supported analysis of research data. See also *Management of data and information in research: a guide supporting the Australian Code for the Responsible Conduct of Research*.

Researchers should make themselves familiar with and engage with the open access infrastructure provided by their institutions.

Under the Code, researchers have the responsibility to:

R22 Retain clear, accurate, secure and complete records of all research including research data and primary materials. Where possible and appropriate, allow access and reference to these by interested parties.

6 The registration of research plans or protocols is increasingly common for non-clinical research and is not to be confused or conflated with the specific requirements for registration of clinical trials addressed in the paragraph below.

7 *National Statement on Ethical Conduct in Human Research* [3.1.7]. Examples of registries for clinical trials and observational studies include ANZCTR and <http://clinicaltrials.gov>. See also information on the International Clinical Trials Registry Platform (ICTRP) on the World Health Organisation website: <http://www.who.int/ictrp/en/>.

8 For example, [Open Science Framework \(OSF\)](#), [PROSPERO](#), <http://preclinicaltrials.eu> and [The Animal Study Registry](#).

4.7 Protect confidential and sensitive information

Publication and dissemination activities must take account of any ethical or legal restrictions relating to intellectual property and the appropriate handling of confidential or other sensitive information (for further guidance, see section 3.2 of *Management of data and information in research: a guide supporting the Australian Code for the Responsible Conduct of Research*).

Researchers are accountable for their research and must consider the consequences and outcomes of research prior to its communication. Where research or its outputs could cause harm to human, animal or plant health or the environment, could harm national security, or are otherwise confidential or sensitive, researchers should seek advice from their institution before the dissemination of research or technical data. This may include dissemination via pre-publication activities, such as submitting an article to a journal for peer review.

Under the Code, a principle of responsible research conduct is ‘Accountability’, which requires researchers and institutions to:

P7 Consider the consequences and outcomes of research prior to its communication.

4.8 Communicate research broadly

Researchers should communicate their findings to the widest appropriate audience in forms that are accessible to that audience. This may include research end-users, such as governments, industry, not-for-profit organisations, consumers and the general public.

Researchers should engage with relevant communities, using appropriate communication channels to inform genuine public debate. They should also seek appropriate communication support from their institutions (see section 3.2 of this guide for the corresponding responsibilities of institutions).

Under the Code, a principle of responsible research conduct is ‘Transparency’, which requires researchers and institutions to:

P3 Share and communicate research methodology, data and findings openly, responsibly and accurately.

Where the research affects, or is of particular significance to Aboriginal and Torres Strait Islander peoples and communities, the outcomes of the research must be presented in a format that is culturally appropriate and acceptable.

A number of publications exist to assist researchers on how to engage with Aboriginal and Torres Strait Islander peoples and communities.⁹

Under the Code, researchers have the responsibility to:

R19 Engage with Aboriginal and Torres Strait Islander peoples and respect their legal rights and local laws, customs and protocols.

⁹ Further guidance on engaging with Aboriginal and Torres Strait Islander peoples and communities is outlined in *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders* (NHMRC, 2018), *Keeping Research on Track II* (NHMRC, 2018) and *Guidelines for Ethical Research in Australian Indigenous Studies* (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2012).

The following points should be considered when communicating research findings publicly in any forum:

- as a general rule, research findings should not be discussed in the public arena until they have been tested through peer review. Presentation of research in progress or before publication on a public server as a preprint, at professional conferences and when it is in the national interest or in the context of a public health crisis are exceptions to this general rule. In discussing the findings of a research project, special care should be taken to explain the status of the project – for example, whether it is still in progress or has been finalised and whether the findings have been published.
- to maximise understanding of research findings, researchers should undertake to promptly inform those directly affected by the research, including interested parties. This may include providing research participants with an appropriate summary of the research results.
- the findings of research with a strong commercial element, certain contractual obligations and patent requirements may have to be presented to a stock exchange, a financial body, a sponsor or investors before any public release.
- any restrictions on communications that have been agreed with the research sponsor should be respected, noting that publication restrictions should be discouraged, where possible.

4.9 Engage in relevant training

Researchers should engage in relevant training about their institution's policies for the responsible publication and dissemination of research, and should seek out other relevant training opportunities when they perceive a knowledge gap.

Under the Code, researchers have the responsibility to:

R16 Undertake and promote education and training in responsible research conduct.

Researchers working with sensitive information, technology or biological agents, should attend training on Australia's export controls and sanctions regimes and must actively seek advice from their institution as soon as they suspect that their research or a publication arising from their research may be subject to control under those regimes.

5. Breaches of the Code

Institutions should manage and investigate concerns or complaints about potential breaches of the Code in accordance with the *Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research* (the Investigation Guide).

Examples of breaches of the Code that are related to the dissemination of research (see also Section 2.1 of the Investigation Guide and *Authorship: a guide supporting the Australian Code for the Responsible Conduct of Research*) include, but are not limited to:

- fabrication, falsification or misrepresentation of research data or source material in a research output or any communication, including social media and grant applications
- plagiarism of someone else's work, including theories, concepts, research data and source material
- duplicate publication (also known as redundant or multiple publication, or self-plagiarism) without acknowledgement of the source or original publication
- failure to maintain records required by an export control body as a condition of publication and dissemination
- failure to take active, reasonable and timely steps to correct the public record upon becoming aware of errors or misleading information in their published research outputs

- public dissemination of research (e.g. via social media) that is yet to be tested in peer review without providing an appropriate caution or caveat
- failure to honour a restriction on publication or dissemination imposed by a sponsor, ethics or biosafety review body or other approval body (including an export control authority).

Additional resources

- ARC Open Access Policy: <https://www.arc.gov.au/policies-strategies/policy/arc-open-access-policy>
- Australian Open Access Strategy Group: <https://aoasg.org.au/>
- Committee on Publication Ethics (COPE): <https://publicationethics.org>, including COPE Text Recycling Guidelines: <https://publicationethics.org/text-recycling-guidelines> and COPE guidelines about predatory journals: <https://publicationethics.org/predatory-publishing-discussion-document>
- Creative Commons Australia: <https://creativecommons.org.au/>
- Equator Network: <http://equator-network.org>
- National Principles of Intellectual Property Management for Publicly Funded Research: <https://www.arc.gov.au/policies-strategies/policy/national-principles-intellectual-property-management-publicly-funded-research>
- NHMRC Open Access Policy: <https://www.nhmrc.gov.au/about-us/resources/open-access-policy>
- PLOS: <https://www.plos.org/why-preprint>
- Preprints: https://www.preprints.org/how_it_works
- Think.Check.Submit: <https://thinkchecksubmit.org/>

Export control and sanctions

- Defence Export Controls: <http://www.defence.gov.au/ExportControls/> including Defence Export – Sector Specific Information: <http://www.defence.gov.au/ExportControls/Sector.asp>
- Australia and sanctions [Department of Foreign Affairs and Trade]: <https://dfat.gov.au/international-relations/security/sanctions/Pages/sanctions.aspx>

Biosafety

- Security Sensitive Biological Agents [Department of Health]: <http://www.health.gov.au/internet/main/publishing.nsf/Content/ssba.htm>
- Institutional Biosafety Committees [Office of the Gene Technology Regulator]: <http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/ibc-1>

Research involving Aboriginal and Torres Strait Islander people and communities

- Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders: <https://nhmrc.gov.au/about-us/publications/ethical-conduct-research-aboriginal-and-torres-strait-islander-peoples-and-communities>
- Keeping research on track II: <https://nhmrc.gov.au/about-us/publications/keeping-research-track-ii>
- Guidelines for Ethical Research in Australian Indigenous Studies: <https://aiatsis.gov.au/research/ethical-research/guidelines-ethical-research-australian-indigenous-studies>

