ACADEMY OF THE SOCIAL SCIENCES IN AUSTRALIA

POLICY ROUNDTABLE

AN AUSTRALIAN ROADMAP FOR OPEN RESEARCH

THURSDAY 13 JUNE 2024

CANBERRA

Event supported by ARC: DP200110578, K Bowrey, T Cochrane, M Hadley, J McKeough, K Pappalardo, I Watson, K Weatherall, 'Producing, Managing and Owning Knowledge in the 21st Century University'

AN AUSTRALIAN ROADMAP FOR OPEN RESEARCH

The Academy of Social Sciences in Australia convened a policy roundtable to highlight the global momentum towards Open Research and the unique considerations and enabling conditions required for Australia to transition to a fair and equitable Open Research system.

The full-day event, held in Canberra, brought international experts together with Australian Government officials, peak bodies, public funders, university leadership, and academics to consider ways to improve research impact and achieve better public outcomes. A facilitated discussion then tested participants' interest in advancing next steps in Australia, including practical reforms that could start immediately.

This summary provides an overview of the conversation and outcomes, which took place under the Chatham House Rule.

The discussion was underpinned by empirical findings and insights gleaned from the Australian Research Council Discovery Project Grant (DP200110578) *Producing, Owning and Managing Knowledge in the 21st Century University*.

Open Research is critical to maximise the impact of research in the real world—but securing the benefits is not certain without action taken together.

The roundtable opened by adopting a shared understanding of Open Research based on *UNESCO's Recommendation on Open Science* (the *UNESCO Recommendation*). An umbrella term which extends beyond Open Access, 'Open Research' refers to a set of principles and practices to make all research outputs supported by public funds, from all disciplines, accessible to everyone. It encompasses data, hardware, educational resources, software, and much more.

These should be made available according to FAIR—findable, accessible, interoperable, and reusable—, and CARE—collective benefit, authority to control, responsibility, and ethics —practices. This approach facilitates collaboration, reproducibility, and efficient advancement of research, with consideration of people and purpose.

Participants discussed two important caveats to the definition:

1. **Access to research should be open, but not uncontrolled,** and respect Aboriginal and Torres Strait Islander knowledge systems. Research should be made available to be as open as possible, as closed as necessary.
2. **Open does not imply 'cost-free,'** and investment should support the people, processes, and values that form the systems of Open Research.

> **It's not simply open for openness' sake, but it's about what Open Science enables us to do**
> Participant

Participants emphasised that Open Research is not an end in itself, but an enabler. Its importance lies in its ability to maximise the benefits of public funding of research and strengthen the entire research system. Open, transparent, and reproducible research methods allow results to be tested, and stimulate knowledge growth and collaboration with industry and civil society.

Australia has long experienced challenges in bridging the gap between university and public research and the rest of society—Open Research makes connections more likely and helps fulfill the human right to share in scientific advancement and its benefits.[1]

[1] Article 27 of the Universal Declaration of Human Rights.

Session 1: The Open Research Vision

The first session included presentations from Professor Erin McKiernan, University of Mexico; Dr Kamran Naim, European Organization for Nuclear Research; and Ashley Farley, Bill and Melinda Gates Foundation.

The session explored why the global move to Open Research is an exciting time for researchers, and addressed some of the motivators and enablers of change.

The number of countries adopting Open Research policies and strategies is growing, but Australia lags behind.

Rapidly evolving global transformation of research and development systems has accelerated momentum towards more open, inclusive, and accessible research practices. Open Research underpins the research strategy of the European Council and UK Research and Innovation. The *World Health Organization Policy on Open Access* and the *UNESCO Recommendation*, to which Australia is signatory, are key catalysts driving international action.

National government Open Research guidelines have been developed by Ukraine, Spain, Ireland, the Netherlands, East Africa, France, and Sweden to coordinate implementation and help map progress. While approaches and scope vary,

*there is a growing shift from regulations specific to publications (Open Access) or data (Open Data) to a more **holistic transformation of research systems**, including addressing research assessment and research integrity issues.*

Countries increasingly recognise Open Research practices are crucial to meet national economic ambitions and *Sustainable Development Goals*.

Participants discussed lessons learnt from early global leadership efforts such as the *Budapest Declaration for Open Access* published in 2002. Without the appropriate levers to drive change, previous declarations have failed to deliver on their aspirations, and much of research remains commodified, with publishers selling journals and continuing to charge fees to make an article immediately available and openly accessible.

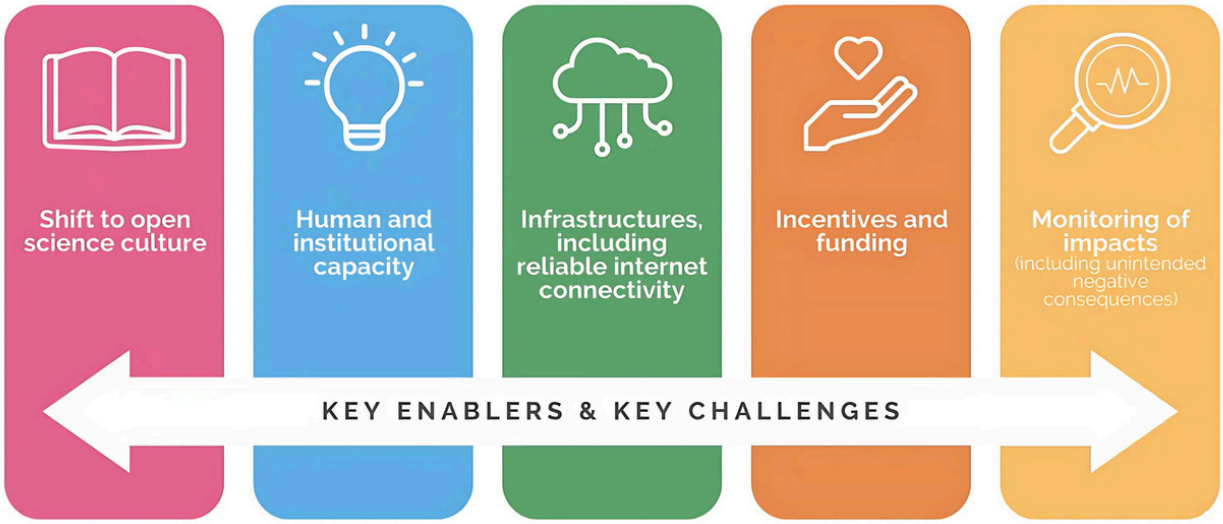
International experts stressed that in places like the United Kingdom and Europe, changes in funder and research assessment policies have energised a move away from paying article processing charges (APCs) and expensive Read and Publish agreements. Also, publisher embargoes are not permitted.

Open Access has been steadily growing in Australia, and there is a strong national legacy of advocacy, driven by groups such as the Council of Australian University Librarians and Open Access Australasia. However,

due to a lack of a clear national vision and coordinated leadership for Open Research, participants noted progress is slow and Australia lags behind international peers.

The transition to Open Research requires a shift in research culture, which can only be achieved through collective, collaborative, and coordinated action, and investment.

As it challenges some traditional norms and practices of research, the transition to Open Research requires a true paradigm and cultural shift. Participants discussed key challenges and enablers in changing research culture, within the context of the *UNESCO Recommendation*. It was agreed that achieving cultural change requires accessible infrastructures, strengthened capacities, aligned funding and incentives, as well as supportive research assessment policies. These elements could be coordinated through development of an Australian roadmap.



UNESCO Open Science, key challenges for implementation – key priorities for action

The discussion centred on several key barriers in Australia:

- **Siloing of efforts.** Universities, research funders, infrastructure providers, and governments all have a role to play in operationalising an Open Research agenda, but efforts are being duplicated and initiatives are currently uncoordinated. Participants emphasised the need to improve how we build on existing tools and expertise available across the community.
- **Lack of coherence within and among the higher education providers.** The policies and rules that guide research production, ownership, and dissemination of research within higher education are drafted by different people, with different objectives, and implemented within universities across different departments at different levels. Inevitably, policies diverge or conflict.
- **Government leadership.** There is a lack of coordinated national leadership on Open Research. Sector-wide change needs to be backed by an infrastructure and funding requirements to more strongly support Open Research, backed up by rigorous compliance mechanisms. Participants emphasised the need for senior leadership to overcome barriers to collective action and drive implementation of an Open Research vision.

There was broad agreement among participants that current research assessment exercises and incentive systems hinder progress towards Open Research.

Drivers of behaviours are not aligned with best practice principles. Assessment practices that heavily prioritise commercial publisher metrics such as publication numbers, citations, and journal prestige perpetuate a problematic relationship between universities, publishers, funders, and global ranking agencies.

International experts recommend greater use of Open Data in research assessment, as is supported by the *Barcelona Declaration on Open Research Information*. This can produce a better understanding of citation metrics and citation diversity—areas which are currently not tracked well. Participants highlighted the report *Research Assessment in Australia: Evidence for Modernisation* which outlines challenges with the current research assessment exercises, and identifies six pillars to improve the practices in Australia consistent with an Open Research agenda.

Participants considered several international examples of strategies and innovations, noting they can be both 'top down'—like national guidelines, developed by government directive—or 'bottom up'—like consortium and partnership initiatives within the research community. Ideally, a combination of both approaches is preferable.

'Bottom up' case study: Sponsoring Consortium for Open Access Publishing in Particle Physics

Participants highlighted the Sponsoring Consortium for Open Access Publishing in Particle Physics (SCOAP3) as one example of discipline-specific collaboration and collective action to deliver Open Research. SCOAP3 is a one-of-its-kind partnership of over three thousand libraries, key funding agencies, research centres and intergovernmental organisations to convert key journals in the field of high-energy physics to Open Access. The model is supported by central administration at CERN, the European Organisation for Nuclear Research, which arranges payment of article processing charges at a competitive level, through funds made available by the participating institutions. SCOAP3 journals are open for any scientist to publish in without any financial barriers. Copyright is retained by the authors, and a permissive CC-BY licence allows text and data mining. CERN would welcome more Australian engagement as it builds international approaches to Open Research, including repositories. Australia can learn from earlier mistakes made at CERN and benefit from developing Open Research initiatives across the sciences more broadly.

> **Our advice to the Australian research community is to encourage collective action at the national level, while engaging with international actors to ensure global alignment**
>
> Participant

'Top down' case study: Sweden's National Guidelines for Open Science

On behalf of the Swedish Government, the National Library of Sweden has developed national guidelines for Open Science.

The guidelines serve as a link between international efforts and recommendations, such as those from UNESCO and the European Union, and the work of research-performing and research-funding organisations. The guidelines are organised around six areas within Open Science, with corresponding priorities to encourage comprehensive and coordinated development. They clarify that it is primarily higher education institutions and research funders that need to develop policies, infrastructure, and guidance to support researchers in practicing Open Science.

> **Bold and transparent change in the research ecosystem is critical to foster an environment where research can truly serve the global community**
>
> Participant

Research funders are increasingly using their voice and influence to decouple research dissemination practices and assessment from business models.

Global research funders, including philanthropic organisations like the Bill and Melinda Gates Foundation, are increasingly mandating Open Research practices, including prompt and unrestricted access to research outputs and the underlying assets. This has helped to drive the adoption of preprints and open publishing and data repositories, recognising that traditional models of publishing do not currently encourage the timely research translation needed to solve pressing global challenges.

Participants discussed the role of research funders in Australia. They noted a 'joined-up' approach by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Australian Research Council (ARC), the National Health and Medical Research Council (NHMRC), and the Medical Research Future Fund (MRFF) would strongly signal expectations to the sector. It would also drive cultural change to a model that champions equity and access, and returns greater public value for the expenditure of public funds.

Session 2: Governance and Mechanisms

This session included presentations from Dr Tiffany Straza, UNESCO; Professor Christopher Pressler, University of Manchester; and Chris Banks, Imperial College of London. Presenters shared international experience in developing institutional and collaborative approaches to Open Research, which provided practical models and potential future directions for Australia.

The systems to use, create, and disseminate research in Australia are complex and fragmented.

The academic publishing landscape in Australia is complex. Researchers navigate a web of intellectual property laws; different sector-wide grant conditions; licensing agreements with libraries; and university policies on intellectual property ownership, authorship, Open Access, and engagement. Researchers working across institutions and/or disciplines face additional complications. International law and practice create another layer of regulation.[2]

Many actors and a range of actions are required to operationalise a fair and equitable system of Open Research—at the individual, institutional, national, and international levels. Participants discussed the success factors and challenges of various international governance models that have brought together different groups of actors.

The *UNESCO Recommendation* on Open Science sets out actions to operationalise Open Research across all levels of the system.

Adopted in 2021, the *UNESCO Recommendation* is the first international legal framework for Open Research policy and practice.

It implements an agreed definition of Open Science, supported by core values, guiding principles, and actions to operationalise Open Research at the individual, institutional, national, regional, and international levels. UNESCO provides support for its Member States in implementing the Recommendation and has established working groups to inform toolkits on the implementation of actions and innovations.

Signatories to the *UNESCO Recommendation*, including the Australian Government, are requested to report on their implementation of the Recommendation every four years, beginning in 2025. Participants discussed the problem that no one, including UNESCO, seems to know which department in the Australian Government has responsibility for the reporting. Coordination with the university sector will be critical.

Rights retention provides a clear opportunity to improve the current publishing model.

A foundational mechanism for enabling Open Research is rights retention, which was repeatedly raised throughout the day. Rights retention enshrines the principle that publicly funded research should be accessible to the public and able to be reused in education and by researchers, industry, and civil society without the need for further fees or publisher permission

The routine transfer of intellectual property rights to commercial publishers by researchers has slowed progress in public access to research for decades.

Adopting a rights retention clause allows authors to share their peer-reviewed research freely, without publisher embargoes. A shift to asserting rights retention focuses on using existing public resources more efficiently, as opposed to developing new resources.

[2] Producing, Owning and Managing Knowledge in the 21st Century University Fieldwork Report.

> **In the UK there has been a blizzard of Open Access policy**
>
> Participant

Participants noted the efficiencies for researchers that can be achieved through implementation of a rights retention policy. In the UK, the implementation of rights retention ensures that researchers meet funder obligations and Research Excellence Framework eligibility in a single step. It is based upon the roll-out of a legally sound policy, aligned with the institutional intellectual property policy.

Globally, over 120 institutions have adopted rights retention policies, and the list is growing.[3] International experience demonstrates that design of a coherent standard policy needs engagement from all universities, research institutions, funders, and research assessment. Within universities, rights retention is usually led by the library working with senior research management, supported by legal offices and senior executives.

While many universities in Australia already attempt to retain some intellectual property rights, there is no sector consistency in how they go about managing ownership of publications, making it difficult for publishers to develop, and staff unable to negotiate appropriate contracts that are compliant with Australian university Open Access, ethics, and Indigenous knowledge policies, and NHMRC and ARC Open Access mandates.[4]

One difference between Australia and overseas jurisdictions is our legal capacity to assert rights retention at a systemic level: that is, universities are legally entitled to retain the rights needed. Implementation would not require individual academics to take action to assert rights retention.

The Producing, Owning and Managing Knowledge in the 21st Century University project team have developed minimum requirements and model policy clauses to facilitate best practice Open Access in the Australian legal context and reduce university compliance and administrative costs.

Participants agreed that standardising rights retention clauses offers a clear opportunity and a key mechanism for transitioning to Open Research.

Adopting a rights retention clause allows authors to share their peer-reviewed research freely, without publisher embargoes. A shift to asserting rights retention focuses on using existing public resources more efficiently, as opposed to developing new resources.

Case study: N8 Rights Retention Statement

The N8 Research Partnership is a collaboration of eight research-intensive universities in the north of England. Under this consortium, members have developed an agreed Rights Retention Statement, where each university is updating their publication policy to support authors to retain more intellectual property rights in their research articles. Each institution has a team to support academics in every stage of the process, including assisting in cases where researchers face push-back from publishers. Participants highlighted this agreement as an example of the type of collective 'bottom-up' action required to align Open Research aspirations to institutional policies and processes.

Participants also noted the valuable work done by the League of European Universities Roadmap for Open Science to assist universities to meet expectations of the European Commission in implementing Open Science. The roadmap is being used by senior management to coordinate policy implementation across university divisions and portfolios to maximise the benefits of rights retention. Participants agreed that this existing work would be very helpful to Australian universities in implementing Open Research objectives.

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[3] The list of UK institutions with rights retention policies can be found at: https://sje30.github.io/rrs/rrs.html

[4] Bowrey, K., Cochrane, T., Hadley, M., McKeough, J., Pappalardo, K., and Weatherall, K., 'Managing ownership of copyright in research publications to increase the public benefits from research'. Federal Law Review https://doi.org/10.1177/0067205X231213676 (DP200110578).

Session 3: Process for Delivering an Australian Roadmap

Panellists for the final session were Professor Kathy Bowrey, University of NSW; Adjunct Professor Ginny Barbour, Queensland University of Technology; and Professor Duncan Ivison, University of Sydney.
The final session tested participants' appetite for implementing a uniquely Australian approach to an Open Research roadmap and was based around three proposals: (1) One Open Research policy for Australia, (2) Research assessment including Open Access and open data reporting, and (3) A harmonised approach to University Rights Retention.

> **We need to overcome the classic collective action problem**
>
> Participant

The day's discussion confirmed a business-as-usual approach to Open Research is holding researchers, students, universities, funding bodies, and Australia back. By default, research is treated as a commodity rather than a common good.

The global move towards Open Research is accelerating, and participants agreed that now is the time to develop a uniquely Australian approach. This would incorporate and respect the knowledges of Aboriginal and Torres Strait Islander peoples and be built on the foundation of international principles set by UNESCO, implemented by collective action, and drawing upon international experience and offers to share expertise.

Participants noted Australia suffers from a classic collective action quandary—a situation in which conflicting interests and disincentives discourage joint action by individuals in the pursuit of a common goal. This needs to be overcome by creating positive incentive structures to encourage an Open Research culture.

Participants discussed a range of mechanisms to achieve this, including models to progress standardised rights retention clauses, modernising research assessment exercises based on open data sources, and embedding Open Research principles in promotions and the overall culture of academic advancement.

Participants observed the critical need to build the political case in order to unlock 'top-down' government initiatives. An open approach to research is central to the success of the government's current platform and priorities. Open Research will secure a future made in Australia by enabling the conditions for innovation and improving research translation. Research systems also generate significant volumes of data, which is the foundation of artificial intelligence. Transparent data access and improving data integrity will be critical for governments and communities.

In a system of publicly funded research, citizens from across Australia should have equitable access to research outputs. The upcoming strategic examination of Australia's research and development system provides a key opportunity for roundtable participants to collectively present this case, as will reforms to research assessment practices being formulated by the ARC.

Recognising that roles and responsibilities traverse all levels of the research system, participants agreed to establish a national coalition of Open Research leaders and advocates as a first step towards collective action on Open Research.

This will allow roundtable participants and critical groups that were not in attendance to progress ideas tabled at the roundtable in a coordinated and collaborative way.

ROUNDTABLE PARTICIPANTS

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Ms Fiona Bradley	Executive Committee Member| **Open Access Australasia**
Emeritus Prof Tom Cochrane AM	Faculty of Business and Law| **Queensland University of Technology**
Mr Peter Derbyshire	Director, Policy and Government Relations | **Australian Academy of Technological Sciences and Engineering**
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