



Australian Government

Office of the Chief Scientist

Open Access Consultation Note

June 2022

This consultation note is intended to provide background information to inform discussions with stakeholders. It is not intended to be a definitive guide on Australia's Chief Scientist's vision for open access in Australia.

If you would like to provide feedback on the ideas expressed in this paper, please email openaccess@chiefscientist.gov.au.

Purpose

Australia's Chief Scientist is exploring a range of models for facilitating open access in Australia, including alternative funding options. A national open access strategy would support Australia to maintain and advance its global position in science, research and innovation, as well as making research literature available to support social cohesion.

Open access is based on a set of principles and a range of practices through which research outputs are distributed online, free of cost or other access barriers.

The purpose of this consultation is to further understand opportunities and factors required to increase the dissemination of research outputs with open access.

Background

Science and innovation have advanced knowledge, created new products and services, increased productivity, and addressed societal and environmental challenges. The wide dissemination of research findings has been crucial in:

- allowing researchers to discuss, understand and build on the work of others,
- helping facilitate research collaboration and
- enabling the development and maintenance of up to date educational resources.

Open access will extend the reach and impact of new knowledge arising from research by allowing all researchers, businesses, policy-makers, health practitioners, educators, and the general public to freely access academic journal articles online. Open access to reliable evidence-based information can help counter misinformation in the community, facilitate informed and robust government policy decisions and facilitate innovation across industry sectors.

The skillsets needed to support Australia's increasingly digitised and knowledge-based economy have a high science and research component. New knowledge and technologies generated from research can drive innovation and help ensure the global competitiveness of Australia's industries.

Open access

Australia

The open access movement is not new to Australia. The first e-print repository¹ in an Australian university was established in late 2001 at the Australian National University. The Australian Scheme for Higher Education Repositories helped fund the creation of repositories at all Australian universities.

The two major Australian research funders, the ARC and the NHMRC, have open access policies, as do around half of Australia's universities.

In 2018, the House of Representatives Standing Committee on Employment, Education and Training recommended that "the Australian Government develop a more strategic approach to Australia's open scholarship environment".

Since then progress has been made towards open access. The Council of Australian University Librarians currently has transformative (i.e. open access) agreements with 13 publishers.

However, the majority of Australia's publicly funded research is still behind paywalls.

Australia now has the opportunity to create an overarching national strategy for open access and coordinate current efforts by different stakeholders.

International

There have been global efforts towards open access over the last 20 years. More recently, and particularly as a result of COVID-19, the open access movement has been gaining momentum.

A number of nations internationally have adopted open science strategies and we have been collating information on these different approaches to inform consideration of development of a proposed model.

International approaches include consortium-based negotiations with publishers, and investment in repositories. For example, the UK and Germany have implemented consortium-based approaches, and Latin America has a network of repositories, La Referencia.

The various models have different impacts on the business models of publishers, which need to be considered in the development of an open access approach for Australia.

¹ A repository is an archive that holds digital copies of the intellectual output of a research institution.

The traditional research publication model

The outputs of most publicly funded research in Australia are published via the traditional peer-reviewed publication process – the foundation stone of the scientific process and integrity. This process includes the researchers writing and submitting their paper to the relevant academic journal, whose publisher coordinates the peer review process in which other researchers from a global pool review the submitted paper, unpaid.

When the paper is accepted and published, the journal publisher retains copyright, creates the related metadata, archives a version of record, assists in discoverability and charges subscription fees for individuals, or institutions, to read.

Researchers can also pay an extra fee to enable open access, removing the paywall for all readers for that specific journal paper. Some journals have moved to a pay-to-publish business model so that all papers in that journal are open access without additional costs to readers. Under this model, authors or their institutions pay (often substantial) publishing fees.

Although academic journals were initially distributed in hard copy, today the vast majority are available online.

The largest publishing houses are all based outside Australia, however, Australia does have some small academic publishers.

Guiding principles

The following principles have been created to guide the development of a model for open access:

- Use, and increase the benefits from, Australia's existing expenditure on academic subscriptions and publishing
- Allow people residing in Australia to freely access all peer reviewed journal articles from the date of publication
- Ensure Australian peer reviewed journal articles in all discipline areas are openly accessible internationally from the date of publication
- Support research integrity by facilitating the provision of quality metadata, keeping versions of record and assisting in discoverability
- Preserve bibliodiversity and author autonomy regarding where to publish
- Recognise the role of publishers in the system and ensure the sustainability of their businesses
- Use infrastructure that is user-friendly, internationally interoperable and designed for future developments in publishing and open research
- Be equitable for all stakeholders

A proposed model

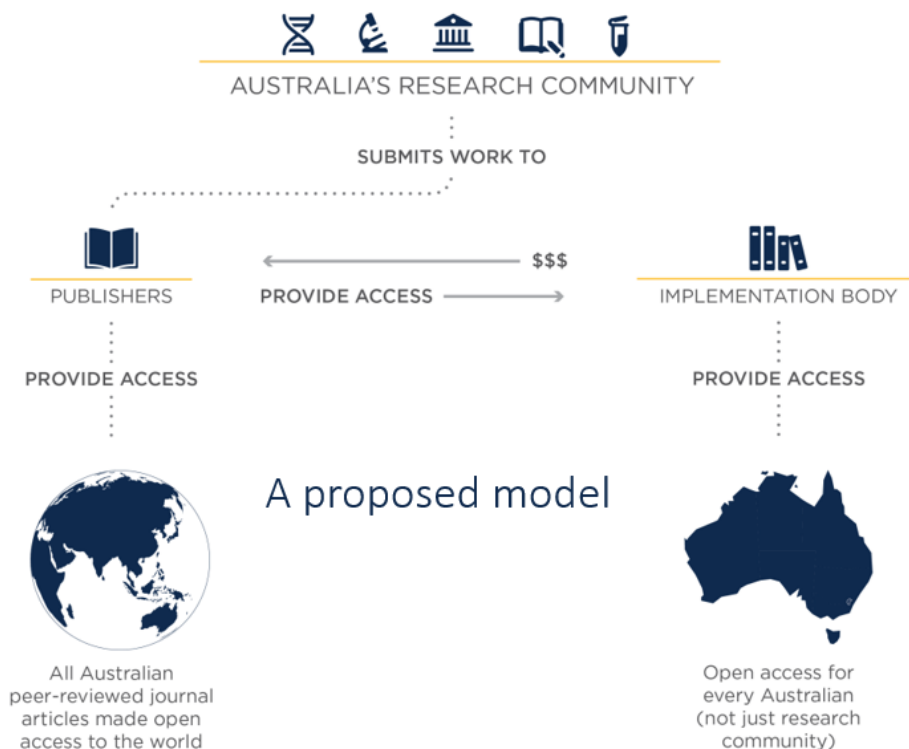
The proposed model, as set out below, has been developed as an example of a national approach to open access. This will assist in understanding the opportunities and challenges for the establishment and operation of a national approach to open access.

Mechanism

Under a possible model, all subscription and all open access publishing fees could be administered by one central implementing body.

- A central pool of funds would be used for subscriptions and open access fees
- A comprehensive national transformative agreement with each publisher would be negotiated and managed through a central implementing body.
- Each agreement would cover:
 - national subscription costs to enable access to academic journals around the world for everyone residing in Australia, and
 - costs of open access publishing so all Australian peer reviewed journal articles are available internationally as open access.
- IT infrastructure would be hosted by a central implementing body.

Diagram of the proposed model



Potential opportunities and challenges

The following table outlines some of the anticipated opportunities and challenges associated with the proposed model.

Stakeholder	Opportunity	Challenge
Government	Increased competitive advantage as now the all scientific findings can be accessed by all stakeholders.	Challenges in negotiating and setting up a robust, fairly funded and sustainable system. Potential misalignment with strategies being pursued internationally.
Government and industry, particularly SMEs	Boosts innovation through access to the latest research for all sectors of the economy at no direct cost to users.	Minimal, as industry and government currently do often not have access to academic literature.
Researchers	A wider audience for their research without the need to provide an extra payment to publish as open access.	During the negotiation and transition, possible restrictions on accessing and publishing.
Universities and research institutes	Streamlining and simplification of publishing and access costs. Increased access, as currently no institution can afford to access the full library of research literature.	A change in the role of librarians and a sense of lost autonomy regarding journal subscriptions. Concerns about implications for access to the full range of titles currently subscribed to.
Australian public	Increased access to reliable information.	Minimal, as model is cost-neutral and the public currently does not have broad access to academic literature.
Publishers	Savings due to increased efficiency of managing one national agreement instead of one per institution.	Challenges in negotiating a fairly funded and sustainable system, including for small publishers.