

# **Background briefing**

# Developing a strategic approach to open scholarship in Australia

### 10 May 2019

#### Overview

- There is an urgent need for the development of a strategic approach to Australia's open scholarship environment to benefit researchers, research funders, and end users including industry and the community.
- Australian universities pay more than \$280 million each year for access to academic research publications, yet that access is limited to only those who work in universities.
- In the latest Excellence for Research Australia (ERA) exercise universities reported that only 32% of articles submitted for evaluation are openly available for everyone to read.
- Increased access to academic research, through a range of open scholarship initiatives including F.A.I.R. principles, open access to research papers, and the availability of the underlying data accelerates research, improves the evidence base for policy making and improves the quality of academic research.
- There are already a number of different approaches to open scholarship in Australia, including through open access journals and books, and university repositories.
- Since 2012 the two major Australian research funders, the ARC and the NHMRC, have had open access to research policies, as do around half of Australia's universities. However, these policies encompass only about a third of Australian Government funding for research and there is no overarching strategy to ensure a coherent approach to open scholarship. Nor is there funding to provide and maintain the infrastructure needed to support a truly open scholarship environment in Australia.
- The effect of a lack of a coordinated response to open scholarship is reflected in the data from the most recent ERA report, which indicates that compliance with the ARC and NHMRC policies is variable.
- Furthermore, there are new policies and practices emerging globally in the dissemination of research which will affect the ways in which Australian researchers and universities could disseminate their research, but there is no nationally coordinated approach to these global developments.

### Introduction

Increasing access to academic research increases opportunities for collaboration among researchers<sup>1</sup> and industry, especially internationally; increases the pace of discovery<sup>2</sup>; provides more opportunities for public engagement with research; and supports a stronger evidence base for the development of policy<sup>3</sup>.

Open scholarship, which includes sharing of methods, data and code as well as publications though open access, not only increases the reach and impact of research but also underpins research integrity by favouring scrutiny and improving the reproducibility of research<sup>4</sup>.

Open scholarship is also important in order to address one of the key challenges in the global research landscape: the rising cost of access to new knowledge. The cost of academic books, subscriptions to major journals, or for downloading copies of single articles, have risen steadily over more than 20 years. In Australia and in most countries the costs of research, publication and access are largely covered by public funding, but only those associated with universities have good access: the public, governments and industry have limited access to research outputs. There is a tension between the need for research institutions to disseminate their research outputs as widely as possible to increase impact and citations, and the publishers' commercial drivers to transfer copyright ownership from authors, lock the research up in closed access databases, and then sell access back to only those who can afford it.

Over the past 10-15 years there have been many innovations in publishing policies<sup>5</sup> and practices<sup>6</sup> which are driving a transition globally from subscription-based publishing and closed research practices to more open access to research publications and to open scholarship more generally. Most notable examples for journal publishing (sometimes known as "gold" open access) are moves from groups of European funders and others through the Plan S<sup>7</sup> and OA 2020<sup>8</sup> initiatives, and challenges to the dominance of large publishers through the cancellation of deals with these publishers<sup>9</sup>.

For repository-based open access (sometimes known as "green" open access) there are other strong global collaborations, led by the Confederation of Open Access Repositories, that are seeking to redefine the role of university and subject specific repositories<sup>10</sup>. Alongside these initiatives there are other

<sup>&</sup>lt;sup>1</sup><u>http://opensourcemalaria.org/</u>

<sup>&</sup>lt;sup>2</sup> <u>https://wellcome.ac.uk/funding/guidance/open-access-policy</u>

<sup>&</sup>lt;sup>3</sup> <u>https://apo.org.au/</u>

<sup>&</sup>lt;sup>4</sup>https://www.nature.com/articles/s41562-016-0021.pdf?WT.mc\_id=SFB\_NATHUMBEHAV\_1701\_Japan\_website

<sup>&</sup>lt;sup>5</sup> Budapest Open Access Initiative <u>http://www.budapestopenaccessinitiative.org/</u>

<sup>&</sup>lt;sup>6</sup>Innovations in Scholarly Communication <u>https://101innovations.wordpress.com/</u>

<sup>&</sup>lt;sup>7</sup> Plan S <u>https://www.coalition-s.org/</u>

<sup>&</sup>lt;sup>8</sup> OA 2020 <u>https://oa2020.org/</u>

<sup>&</sup>lt;sup>9</sup> SPARC Big Deal Cancellation Tracking <u>https://sparcopen.org/our-work/big-deal-cancellation-tracking/</u>

<sup>&</sup>lt;sup>10</sup> Next Generation Repositories <u>https://www.coar-repositories.org/activities/advocacy-leadership/working-group-next-generation-repositories/</u>

innovative developments, such as the increasing use across many disciplines of "preprints" (unpublished versions of research articles) to accelerate the sharing of research<sup>11</sup> – a practice that is well established in physics, for example.

#### International policy developments

There are many diverse approaches being undertaken internationally to open scholarship and the most successful are ones that are carefully planned, and nationally or regionally coordinated. To that end a number of countries are developing national implementation plans<sup>12</sup> in order to move forward strategically at a national level. A European analysis has suggested that there are substantial cost savings to be made if there were to be national-scale transitions to open publishing, though it would be necessary to confirm the applicability of this modelling in Australia<sup>13</sup>.

### The situation in Australia

In 2016 the Productivity Commission recommended the need for a National Open Access policy and in 2017<sup>14</sup> the Government accepted that recommendation. However, there is still no Federal policy on open scholarship.

In 2018 the AOASG proposed a national approach to open scholarship. This proposal was accepted by the House of Representatives Standing Committee on Employment, Education and Training in 2018 in its inquiry into the Australian Government Funding Arrangements for non-NHMRC Research. The Committee recommended that "the Australian Government develop a more strategic approach to Australia's open scholarship environment."

The effect of a lack of a coordinated response to open scholarship is reflected in data from the most recent Excellence in Research Australia report which found that only 32% of research articles submitted for that report were open access<sup>15</sup>.

Despite global initiatives and national policy recommendations, in Australia the predominant model of publishing the final output of research – usually in a journal – therefore remains subscription-based. This model is dominated by overseas for-profit publishers, is expensive<sup>16</sup> and does not serve the best interests of Australian universities, the economy, or the wider public. In 2017 Australian universities

<sup>&</sup>lt;sup>11</sup> Accelerating Science and Publication in biology <u>https://asapbio.org/</u>

<sup>&</sup>lt;sup>12</sup> French National Plan for Open Science <u>https://libereurope.eu/blog/2018/07/05/frenchopenscienceplan</u>; Swedish Plan for Open Access http://www.kb.se/dokument/open%20access/OpenAccess\_National\_Library\_Sweden\_2017\_2019.pdf

<sup>&</sup>lt;sup>13</sup> Schimmer, R.; Geschuhn, K.K.; Vogler, A. (2015): 'Disrupting the subscription journals' business model for the necessary large-scale transformation to open access' (<u>http://dx.doi.org/10.17617/1.3</u>)

<sup>&</sup>lt;sup>14</sup> Government Response to Productivity Commission's intellectual property report <u>https://www.communications.gov.au/departmental-news/government-response-productivity-commissions-intellectual-property-report</u>

<sup>&</sup>lt;sup>15</sup> https://dataportal.arc.gov.au/ERA/NationalReport/2018/pages/section1/open-access/

<sup>&</sup>lt;sup>16</sup> https://www.theguardian.com/science/2017/jun/27/profitable-business-scientific-publishing-bad-for-science

spent more than\$280 million<sup>17</sup> on journal subscriptions (the national cost, including subscriptions paid by health, government and industry sectors, is actually much higher, but there is no national data source for this).

These costs have been mitigated through the adoption of a consortium approach to subscriptions, led by CAUL and including all 39 public Australian universities, the eight New Zealand universities, and other research organisations in both countries. Consortium subscriptions offer significant costs savings for the organisations involved, and therefore a more effective use of public funding, but the costs of subscriptions are nonetheless rising at a much higher rate than research funding.

The two major Australian government research funders, the ARC and the NHMRC, have open access policies, as do around half of Australia's universities. Open access is specified in the CSIRO Statement of Expectations<sup>18</sup>.

The Australian Government has previously invested money in open access infrastructure in terms of providing funding for development of university repositories through the National Collaborative Research Infrastructure Strategy for the Australian Research Repositories Online to the World (ARROW) and Rural Universities Building Research Infrastructure Collaboratively (RUBRIC) projects, and the Australian Scheme for Higher Education Repositories (ASHER)<sup>19</sup> project. However, there is no ongoing central support for these repositories and no national coordination.

There are many other organisations in Australia, including federally funded initiatives such as the Australian Research Data Commons (ARDC), Creative Commons Australia, universities, advocacy groups, societies and peak bodies, who have initiatives in one or more areas of open scholarship. It is also a key principle for major projects like the Square Kilometre Array (SKA). The governments, research organisations and researchers behind SKA recognised from the outset that it would produce more data than any one research group or research organisation could handle, and have adopted open data access schemes for many SKA instruments.

The various Australian initiatives often overlap and include support for open data, open journal and book publishing, open educational resources and policy development such as the F.A.I.R. (Findable, Accessible, Interoperable, Reusable)<sup>20</sup> statement. Although there are discussions among these groups there is no one body that is responsible for coordination, nor is there any dedicated funding for a strategic approach.

<sup>&</sup>lt;sup>17</sup> Data from the Council of Australian University Librarians <u>https://www.caul.edu.au/programs-projects/statistics</u>

<sup>&</sup>lt;sup>18</sup> https://www.csiro.au/en/About/Leadership-governance/Minister-and-Board/Statement-of-Expectations

<sup>&</sup>lt;sup>19</sup> https://archive.industry.gov.au/science/ResearchInfrastructure/Pages/ASHERandIAP.aspx

<sup>&</sup>lt;sup>20</sup> F.A.I.R. Open Access Statement https://www.fair-access.net.au/

#### The opportunity and imperative for action now

Despite much discussion and individual initiatives over the past few years, Australia lacks a coordinated approach to open scholarship, and thus risks failing to capitalise on the opportunities afforded by this increasingly important global development.

CAUL and AOASG therefore reiterate the need articulated through recent national discussions for the development of a strategic approach to Australia's open scholarship environment, coordinated through a centrally funded body.

The work of this body would include:

- Mapping the Australian publishing landscape (including existing open initiatives)
- Engaging with relevant international initiatives
- Reviewing and assessing open scholarship globally with the aim of recommending best practices for adoption in Australia
- Commissioning a cost-benefit analysis of changing to a more open publishing environment
- Convening a group to develop a national action plan and oversee a consultation process

In order to:

• Produce specific recommendations on a national approach to open scholarship in Australia, including policy, actions and the funding required.

#### About:

The Australasian Open Access Strategy Group (AOASG) advocates for open access to academic research outputs and promotes innovation in all areas of scholarly communication. The AOASG is supported by nineteen universities in Australia and eight in New Zealand. Creative Commons Australia and Tohatoha Aotearoa Commons are affiliate members.

The Council of Australian University Librarians (CAUL) is the peak leadership organisation for university libraries in Australia. University libraries are essential knowledge and information infrastructures that enable student achievement and research excellence. CAUL makes a significant contribution to higher education strategy, policy and outcomes through a commitment to a shared purpose: *To transform how people experience knowledge – how it can be discovered, used and shared.* 

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