- Open Access Australasia, UNSW Sydney, NSW, Australia
- University of Melbourne, Parkville, Victoria 3010, Australia
- 3 Te Mātāpuna, Library and Learning Services, Auckland University of Technology, Auckland City, New Zealand

Correspondence to: V Barbour

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No turning back on global open access

US government sends a strong signal

Virginia Barbour, ¹ Dimity Flanagan, ² Kim Tairi³

On 25 August 2022, the Office of Science and Technology Policy of the US White House issued guidance requiring, from 2026, immediate public access to federally funded research publications and the data behind them. 1 This is the probably the most consequential in a trajectory of open access policies that have been building pressure for wholesale change. In 2013 President Barack Obama's office issued guidance requiring public access to research funded by the largest agencies, although he allowed a 12 month embargo—a reflection of concerted lobbying by publishers in the US.² In 2016, while vice president, Joe Biden acknowledged the limitations of that guidance when discussing access to research in his cancer moonshot initiative: "Tell me how [publisher paywalls are] moving the process along more rapidly."3

In 2018 the policy initiative passed to Europe, when a group of funders (Coalition S) announced Plan S, requiring immediate and full open access to their funded research, with a clear roadmap for implementation from 2021. The covid-19 pandemic provided further momentum for free access. The White House and many international science agencies explicitly called for immediate access to covid-19 research in 2020. Unesco's open science recommendation in 2021 provided further impetus.

The 2022 White House guidance is the culmination of these preceding policies, but with a US policy lens applied to it—that the US public can access research that its taxes fund. Some US publishers have complained about lack of consultation, but it's hard to take this seriously. Since open access was first defined in 2003, it has been clear to any attentive observer that what remained was when and how open access would become the norm.

Implications and impact

The implications of the US and European policies extend beyond the countries of the funders. Research is international, and publishers are multinational organisations. Decisions made on implementing these policies will affect how publishers respond globally and, crucially, determine if these policies lead to equitable outcomes for those who publish research.

Open access publishing has proved to be hugely profitable for the biggest publishers. The memorandum accompanying the US guidance states that although the expectation is that research is made open through open repositories, author fees applied to open access publications can be funded from research budgets. This could inadvertently advantage business models that are funded by individual article processing charges or largescale read-and-publish agreements between institutions

and publishers. What would be visionary is federal investment in repository infrastructure and community and experimental models of funding open publishing. Plan S has been important in analysing the role of repositories and the no fee (diamond) open access journal landscape. Without substantial investment in and recognition of more equitable models of openness, the US guidance could lead to a bonanza in open access fees for publishers and a reduction in the diversity of access models.

The effect the guidance will have on authors will depend on the ability of each federal agency to create clear policies supported by robust infrastructure and training. The guidance explicitly states that procedures must be developed to reduce the burden on researchers—a positive sign. In addition, the 2021 congressional report on public access policies highlighted efforts to streamline repository submission processes and interagency collaboration.¹⁰

Improving access to data

These agencies have also been working to increase access to data. Policies requiring full scientific data to be made freely available at time of publication will probably be the greatest challenge for researchers. Although the guidance states that agencies should allow researchers to include reasonable costs associated with submission, curation, and management of data, one of the biggest costs is often the time needed to make a dataset usable, not just publicly available.

A key purpose of making research publications and data available to the public is to maximise the impact of the research: to promote collaboration, improve the availability of evidence for policy makers, and accelerate discovery and translation. That the 2013 guidance has led to public availability of over eight million scholarly articles, read by over three million people a day, shows the demand for research. The 2022 guidance states that "Financial means and privileged access must never be the pre-requisites to realizing the benefits of federally funded research that the American public deserves." Given the scale of US federally funded research, this policy will deliver benefits not only to the American public but to all global citizens.

There is no doubt that the US guidance is a signal to governments everywhere that open access policies and national approaches are necessary. Experience shows that government and other research funders cannot rely on commercial publishers suddenly to become magnanimous and make research immediately free to read when profit margins are to be protected. Australia's National Health and Medical

Research Council has just announced an immediate open access policy. ¹¹ Other funders in Australasia and elsewhere should follow the US lead and keep this momentum going.

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