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RE: NASA Public Access Plan for Increasing Access to the Results of NASA-Supported Research

(Docket Number: 2023-10643)

Submitted to hq-publicaccess@mail.nasa.gov

Thank you for the opportunity to provide input on NASA's updated Public Access Plan. We are writing on behalf of [SPARC](http://www.sparcopen.org), a non-profit advocacy organization that supports systems for research and education that are open by default and equitable by design. Our [membership](#) includes over 200 academic and research libraries across the U.S., with institutions ranging from large research intensive universities to community colleges. We believe that sharing knowledge is a human right, and that everyone should be able to access, contribute to, and benefit from the knowledge that shapes our world. Our members are committed to supporting equitable systems of research and education, and we appreciate the opportunity to provide feedback on NASA's plan to implement the landmark 2022 OSTP Memorandum on [Ensuring Free, Immediate, and Equitable Access to Federally Funded Research](#).

NASA's updated plan puts the agency on strong footing to implement the provisions of the 2022 OSTP Memorandum in pursuit of its mission to "explore the unknown in air and space, innovate for the benefit of humanity, and inspire the world through discovery." We applaud the agency's approach and offer specific suggestions in response to the Federal Register notice.

How to best ensure equity in publication opportunities for NASA-supported investigators?

SPARC strongly supports the OSTP Memorandum's emphasis on ensuring equity in contributing to, accessing, and benefitting from the results of federally funded research, and we applaud NASA's specific attention on how to ensure equity in publication opportunities for its funded authors. We appreciate NASA's exploration of a variety of compliance paths for researchers and recommend that the plan be updated to further clarify these paths and how they interact.

Specifically, we recommend that NASA's plan and associated policies specify that immediate deposit of the author's accepted manuscript into PubSpace (or another agency-designated repository) is required to achieve compliance. As separate guidance, NASA can also provide grantees with options for meeting this requirement (e.g., filling out the PubSpace submission form, depositing in another agency-designated repository, working with CHORUS, etc.). Such an approach would follow well-established models for achieving compliance, including the NIH's compliance methods.

We appreciate the benefits that collaborations with external partners, such as CHORUS, may provide. Because third-party vendors operate under terms that are subject to change, they should serve as a supplement to support compliance, rather than a proxy to indicate compliance. This approach ensures that NASA remains in a strong position to leverage external partners where it benefits the agency and its grantees while retaining flexibility to adapt its approach should the terms change under which services such as CHORUS are offered—without the burden of revising policy.

We further recommend that NASA explicitly emphasize the availability of compliance options that do not present financial barriers. NASA's plan and associated policies and guidance should clearly describe how authors can fully comply with its public access policy at no cost by depositing the author's accepted manuscript into NASA's PubSpace or any other agency-approved repository.

Because authors may be encouraged to pay added Open Access fees in circumstances when they are unnecessary for compliance, NASA should clarify that any charges from publishers are publication charges—not compliance charges. It is critical that authors do not conflate compliance with article processing charges (APCs), which create significant barriers for less-well-resourced authors and institutions to make their research available. It is important for researchers to understand that the option to post their final peer-reviewed manuscript into an agency-designated repository is an affordable and equitable full compliance mechanism that is available to them.

Institutional repositories run by libraries and other research institutions generally do not charge authors to deposit articles or manuscripts. These can play an important role in easing compliance burdens on authors, improving discoverability of research outputs, and providing long-term preservation support. Therefore, we strongly recommend that NASA allow for the deposit of publications into other repositories beyond PubSpace, and suggest that NASA utilize the guidance set out in the U.S. Repository Network's [Desirable Characteristics of Digital Publications Repositories](#).

Steps for improving equity in access and accessibility of publications

The plan states that NASA will ensure NASA-funded documents are presented in machine-readable formats and that the agency will allow for bulk downloads of the content within its technical reports server. SPARC supports these commitments as they improve the utility of NASA's research for other researchers and the public more broadly.

The plan outlines two options regarding retention of appropriate rights for reuse of the publication. Grant recipients may (1) agree to grant the Government a broad license that enables the NASA repository to transfer limited rights to the public or (2) retain the rights necessary in a publishing agreement to allow the as-accepted manuscript to be posted to NASA's repository. Additionally, it identifies a need to incorporate necessary copyright licenses into awards for non-civil servants to fully implement the plan.

As currently written, NASA's plan only requires publications to carry a portion of rights, such as those that would allow them to be posted to NASA's repository and accessed by the public. Without full reuse rights, the utility of NASA-funded publications will be restricted and their impact in the scientific community diminished. To ensure full reuse of NASA's research, SPARC recommends that all agency publications carry full reuse rights, such as those provided by a [CC BY 4.0 International License](#) or its functional equivalent.

We recommend a straightforward approach to accomplish the agency's stated goal of making publications available without charge to the public and enabling the public to read, download, and analyze them in digital form (in other words, to fully reuse the publication). To build on the plan's suggestion that grantees agree to grant the government a broad license for public reuse, we suggest that NASA specifically require grantees, as a term and condition of funding agreements, to ensure that the agency receives a license to agency publications sufficient for NASA to grant the public re-use rights. This approach minimizes complexity and burden in compliance by grantee institutions and authors.

To do this, the agency could rely on its existing federal purpose license under [2 C.F.R. § 200.315\(b\)](#). For additional clarity, we suggest that NASA also require that grantees provide an additional license to NASA that specifically provides the right to grant the public re-use rights to agency publications covered by the Public Access Policy.

Requiring that this additional license be granted as a term and condition of funding ensures that the agency receives its additional license at the moment the scholarly publication is created, which is how the longstanding federal purpose license operates. In this way, even if an author from the grantee's institution signs a publication agreement that conflicts with the agency's license, the agency's license remains intact, as is the case with the agency's federal purpose license.

We also recommend the agency develop template language that can be attached to or included with the publication, either by the author or NASA staff, to indicate the publication is available under an open license. A more thorough explanation of these recommendations is available on our [website](#).

Methods for monitoring evolving costs and impacts on affected communities

We are deeply concerned about the financial barriers that author-side fees, particularly article processing charges (APCs), present to authors and the significant negative effects these have on the research ecosystem. APCs [continue to increase](#) year over year, driving up the cost of research communication which may result in tradeoffs that divert funds away from the research process itself.

The barriers to publication created by APCs negatively impact authors, especially in instances where publishing in particular APC-based journals is viewed as important for career advancement. This results in fewer opportunities for individual researchers to share their results with the scientific community and the public. This is extremely troubling from an equity perspective, as [studies](#) have documented that APC

costs disproportionately affect younger researchers, female researchers, and those at less well-funded institutions.

Given the diversity of author experiences, NASA should establish a baseline understanding of the environment by collecting data on the number and makeup of its current funding recipients who are charging publication fees (APCs) as direct costs to their research grants and analyzing that data across different demographics (e.g., minority-serving institutions (MSIs), [EPSCoR-eligible](#) institutions, [IDeA-eligible](#) institutions, researchers in less-well-resourced disciplines, etc.)

NASA should include its public access policy as part of its agency-wide barrier analysis of its grants and cooperative agreements outlined in its [2022 Equity Action Plan](#). This will support the agency's second focus area: "Enhance Grants and Cooperative Agreements to Advance Opportunities, Access, and Representation for Underserved Communities"

Input on considerations to increase findability and transparency of research

We support NASA's plan to use existing, public metadata standards as well as the inclusion of metadata standards in data management plans (DMPs). The current plan requires PIDs (specifically a DOI) for data and software but does not specifically require them for publications or at least does not go into detail. We recommend NASA add language clarifying that PIDs are also required for publications. When considering the use of PIDs, NASA should identify and adopt non-proprietary community standards where they exist such as the [Research Organization Registry](#) (ROR) IDs and ORCIDs.

Suggestions on sharing and archiving of software

We applaud the plan for requiring software and analysis code to be shared at the time an article is published and, specifically, in a public archive. We recommend NASA require the software and code to carry an open license such as those approved by the [Open Source Initiative](#). Additionally, we applaud the agency's commitment to providing reviewers with guidance to assess and monitor software management plans (SMPs), signaling SMPs will be evaluated as part of the award review process.

SPARC appreciates the opportunity to provide comments on NASA's Public Access Plan as well as NASA's broader leadership in this area through initiatives like the *Year of Open Science*. We look forward to working with the agency to fully accomplish the goals outlined in the OSTP Memorandum and to leverage the full value and utility of NASA-funded research.

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