

## **Response to NASA RFI 2023**

This is [OASPA's](#) response to the [Request for Information on the Public Access plan released by NASA on 18 May 2023](#). We are grateful for the opportunity to provide some thoughts, and we welcome any questions or comments.

### **Background and introduction**

OASPA (the [Open Access Scholarly Publishing Association](#)) represents a diverse community of organizations engaged in open scholarship, and encourages and enables open access as the predominant model for scholarly outputs. Open access (whether through a repository-deposited manuscript or the published version of record) is one of the main ways in which NASA's public access goals will be achieved, and OASPA and NASA are aligned in not promoting particular models as there is more than one way to successfully achieve openness and public access.

Open access and APCs (Article Processing/Publishing Charges) are often conflated, but are not synonymous. Over its 15 years, OASPA has continuously supported all routes to, all forms of, and all publishing models delivering open access. Most recently, however, OASPA is working with a particular focus to ensure that open access, regardless of route or model, is equitable and inclusive.

Increasing equity is a shared challenge and no single stakeholder, group, country, or region can deliver this alone. With our [focus on equity through 2023](#), OASPA is especially encouraged to see equity as the focal point of the questions in this Request for Information from NASA. Equity as we see it is not just about having access to research outputs or the ability to reuse them, but also the ability to be able to participate fully and contribute to the global endeavor of research and scholarship.

We strongly endorse NASA's approach on data and software. Publications and the data and code that underlie them are linked, so it is important that these areas are developed in parallel. Data and software are key to the validity, integrity and replicability of published works. Items with strong resonance for OASPA on the data side include:

- *Software should be included as part of open access subject to NASA release requirements*
- *Other data products beyond peer reviewed publication and software should be considered as part of open access*
- *Requiring "releasable versions of all federally funded data after removing proprietary and/or confidential information"*
- *Emphasis on DMPs and data sharing as part of the research planning process including having metadata requirements and DOIs for all datasets.*

We applaud NASA's leadership on these points.

OASPA's core interest sits on the publications side, and OASPA has always called for immediate open access to scholarly outputs so we welcome the move to remove embargos from publications – this makes a huge impact on access to scholarly research outputs. OASPA also feels that scholars should not be faced either with barriers to participation or unfair costs. The widespread adoption of depositing the accepted manuscript into repositories will provide a catalyst to fully take advantage of the range of approaches that are not based on APCs or transformative agreements.

**OASPA's responses to four of the five questions from NASA follow below.** In the detail below we emphasize the importance of enabling reuse, and we call for conversation and support from NASA around routes to open access that are more inclusive and equitable.

**Q1. How to best ensure equity in publication opportunities for NASA-supported investigators?**  
**Q2. Steps for improving equity in access and accessibility of publications.**

**Responding to Q1 & Q2 together:** Remaining business model agnostic is a thoughtful stance taken not just by NASA but also in the overarching OSTP memo of August 2022. However, perspectives gathered over the course of a detailed series of workshops focused on equity (see final section with further reading) suggest that this well intentioned position, coupled with the dominance of the APC model in publishing, could potentially have harmful impacts on equity in publishing opportunities.

The NASA position on equity in access to publishing opportunity, as drafted, seems to suggest that repository-enabled access (including deposit of the authors' accepted manuscript) goes far enough in alleviating concerns that have been voiced about certain publishing models putting early-career scientists and those at less well-resourced institutions at a disadvantage. However, with the emphasis on repository-enabled OA of any version (often likely to involve the authors' accepted manuscript) taken together with the draft policy's overtly stated willingness to allow for research grants to be used (against reasonable costs) for OA of the Version of Record (VoR), this could heighten prevailing inequities in publication opportunities.

OASPA suggests that when we focus more (or solely) on access than reuse then we all stand to lose out on the full benefits of both public access and open access. Using the paywalled/ subscription route with zero-embargo deposits to STRIVES, CHORUS and similar platforms removes a cost barrier and broadens participation, but it's important to make sure that discoverability and re-use are maximized. Accessibility and equity should also be about making content as useful to the public as possible, and to achieve its full potential that content needs to be reusable. Moreover, NASA has taken the trouble to emphasize how both human and machine-readable forms are needed to support automated text processing; while this is laudable, these goals may not be fully realized where licensing to enable reuse falls short.

It is also most likely that those investigators who have resources to choose open access for their VoR (most likely via APC payment or through transformative agreements) are the ones most advantaged by the current system and the drafted NASA policy. This is because work published as open access for the VoR is more likely to be seen/found, re-used and cited.

In effect, the draft policy, as scripted, runs the danger of continuing to advantage established investigators ([mostly white, male, based at well-resourced institutions with job security](#)<sup>1</sup>) by continuing to facilitate long-established but exclusive pathways to achieving public access through open access of the version of record. Published work from others without APC funding will likely remain behind paywalls, be less visible and less re-usable despite repository-enabled access. Existing inequities persist when there is no opportunity to have versions of record available as OA because APCs remain the dominant route for enabling such publication.

The NASA policy says that "*Reasonable costs of data sharing and public access can be met from proposal / project plan budget*". OASPA's 4th workshop on Equity in OA (held in June 2023) has revealed how financial support is currently broken down by individual-article output from individual grantees (and their co-author groups). Rather than enabling all, everywhere, this 'atomized' approach selectively opens the door to open reporting only for those who can carve out funds for specific papers. This has a negative

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<sup>1</sup> "The results show, in general, that the likelihood for a scholar to author an APC OA article increases with male gender, employment at a prestigious institution (AAU member universities), association with a STEM discipline, greater federal research funding, and more advanced career stage (i.e., higher professorial rank). Participation in APC OA publishing appears to be skewed toward scholars with greater access to resources and job security."

impact on the equity of publishing opportunities particularly when open access of the Version of Record is desired by scientists for the visibility, reuse and citation benefits this route is known to bring. More on our thinking regarding pathways to more equitable open access is available here: [Money flows & trust signals in OA for all](#).

Finally, despite the model-agnostic stance of the policy, OASPA notes that awareness of funding availability (and supporting processes) for publishing OA via payment of APCs is well established. However, there are scant (no?) routes that OASPA is aware of for equivalent support for models involving collective action, S2O or diamond routes all of which deliver OA (and therefore public access) in a more equitable manner, with no researcher-facing fees for reading or publishing.

### **Summary and points of reflection:**

- To be truly equitable and inclusive, and to support the broadest possible human engagement (to sit alongside machine-readability and mining), the sharing, discoverability and re-usability of outputs needs to be more specifically supported. The NASA policy could go further to specify that re-use licensing on deposited accepted manuscripts and published articles should specifically articulate and facilitate appropriate reuse. By including and supporting strong requirements for PIDs and metadata in these venues, visibility of outputs in repositories can also be widened.
- Against growing market concentration of the APC model, OASPA notes that inequities are persisting and policy changes can alleviate this. Increasing and normalizing funding for non-APC routes to OA of the VoR is vital for equity in publishing opportunities and diversity in participation.
- A predominance of APC and 'transformative' routes to OA are having negative impacts for equity as demonstrated by the reading list and key points summarized at the very end of [this post arising from OASPA's 3rd Equity in OA workshop](#). However, it should be recognised that for many publishers these routes are the only reliable means to support open (and public) access goals while maximizing re-use and discoverability. Funding for more equitable models that could be adopted is not well established. This needs attention and structural support to enable the move to more equitable routes of immediate open access that also allow for the widest possible reuse.
- Supporting funding for a wider diversity of the [routes](#) to OA will help NASA's aims around equitable public access and increase publication opportunities for NASA-supported investigators. Reform is needed to move from thinking in terms of supporting individual articles (and individual grantees) towards supporting open reporting as a process for all. Failure to provide support through policy and funding for more equitable open access models that support all will only serve to entrench the currently dominant modes of OA publication of the VoR (via APCs and transformative agreements) that are inherently inequitable.
- NASA's policy could include funding support - routed via institutional libraries or otherwise - for more equitable approaches that boost career prospects for all investigators, without discrimination. Such routes include the likes of collective action, Subscribe2Open, 'Diamond OA' and other models (that achieve OA of the VoR without researcher-facing fees). We propose as further reading, this report stemming from OASPA's 4th Equity workshop: [Money flows & trust signals in OA for all](#). While the NASA (and the OSTP) policy is clear that it is model-agnostic, failure to provide support (through policy and funding) for more equitable OA models will only serve to entrench current inequities as argued above.
- NASA-funded research being available for private industry and commercialization has been specifically mentioned in the revised policy. OASPA reflects that it is helpful and progressive to engage the private sector as they are co-creators in and consumers of scientific information.

**Q3. Methods for monitoring evolving costs and impacts on affected communities.** As above, OASPA recommends greater normalization of investment for additional routes to support a more equitable form of OA enabling greater participation. We believe that this will drastically alleviate the impacts on affected communities because: (1) with additional funding support available, more US institutions and librarians may find it easier to repurpose existing spends from paywalled to OA titles that rely on collective action and other routes that do not involve researcher-facing fees; (2) fewer NASA-supported researchers will see or need to deal with invoices at the individual article level. This should drive efficiency and reduce cost.

Costs are not the only factor affecting communities, nor are they the only barrier preventing researchers from contributing. Additional factors should also be addressed, such as format, language, incentives, assessment, and the notions of quality and prestige.

**Q4. Input on considerations to increase findability and transparency of research.** OASPA's suggestion is to ask that open reporting in the community of scholars is specifically and actively rewarded. NASA has the opportunity to help build credit and benefits for those researchers who deposit data and follow open-publishing practices. OASPA would welcome participation from NASA in work with institutions to build rewards and incentives for open practices into career evaluations.

This also links to better uptake of PIDs and usage of metadata, both of which contribute to the findability and transparency of research. OASPA is actively involved in initiatives which are focussed on implementing more widespread adoption of PIDs and supports the uptake of new identifiers such as ROR. The [OA Switchboard](#), a community-led initiative founded by OASPA, is also helping to increase PIDs and participation provides a practical mechanism for improving publisher metadata. There is a timely opportunity for all of us to collaborate.

Findability and transparency of research is also directly linked to research integrity and is a key area of OASPA's work. It enables the ability to combat all bad actors, not just researchers. Other aspects can also support this, such as having more information available regarding peer review – we encourage NASA to think beyond current practices and to explore open access to other outputs, for example preprints and peer review reports. Encouraging this through research assessment reform will also help with proliferation of such behaviors throughout the researcher community.

#### **In closing:**

OASPA is enthusiastic about NASA's public access goals and welcomes the future trajectory as outlined in this revised policy. OASPA is delighted by the focus on data and software, and encouraged by alignment between the public access goals of NASA (and OSTP) and our own focus on both: immediate (open) access, and also increasing equity in the way in which open science works.

Outputs from OASPA's work, so far, on increasing equity are listed below as suggested further reading. With this, we caution that more is needed to build, support and stabilize equitable publishing so that there is opportunity for and inclusion of all NASA-investigators (and all researchers, based everywhere).

Open access (by whichever route - repository or publisher led) is one of the main ways in which public access mandates will be achieved, and is also a dominant route to open reporting for investigators in the US and across the whole world. This is the time to lay down strong foundations for the coming years. We would welcome working with NASA and other federal agencies to help sculpt routes to more equitable ways of achieving both open and public access.

**References / Further reading:**

OASPA is committed to increasing equity in open access. So far in 2023 we have convened four workshops (bringing together librarians, publishers and others from a range of countries including the US) on this topic. Here are reflections and reports arising from each multi-stakeholder session:

- [The APC debate, rainbows and reflections](#) (based on workshop #1)
- [Why do professors pick paywalls?](#) (based on workshop #2)
- [Making waves in APC & waiver practice](#) (based on workshop #3)
- [Money flows and trust signals in OA for all](#) (Part 1 based on workshop #4)