



# AMERICAN ASTRONOMICAL SOCIETY

6 May 2020

Dr. Lisa Nichols  
Office of Science and Technology Policy  
1650 Pennsylvania Ave. NW  
Washington, DC 20504  
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Re: AAS Response to OSTP Request for Information: *Public Access to Peer-Reviewed Scholarly Publications, Data and Code Resulting from Federally Funded Research*, FR Doc. 2020–03189, 12 February 2020

Dear Dr. Nichols:

We appreciate the opportunity to have met with you on 28 February and to learn of the OSTP's recognition of the critical role of nonprofit society publishers in advancing open access to federally funded research. We look forward to continued dialogue and engagement in this area.

The American Astronomical Society (AAS), established in 1899 and based in Washington, DC, is the major organization of professional astronomers in North America. Its membership of over 8,000 individuals also includes physicists, mathematicians, geologists, engineers, and others whose research and educational interests lie within the broad spectrum of subjects comprising contemporary astronomy, planetary science, and heliophysics. The mission of the AAS is to enhance and share humanity's scientific understanding of the universe.

As a 501(c)(3) the AAS owns, operates, and publishes the most widely read and cited journals in the field: *The Astronomical Journal (AJ)*, *The Astrophysical Journal (ApJ)*, *The Astrophysical Journal Letters*, *The Astrophysical Journal Supplement Series*, and *The Planetary Science Journal*. The *AJ* was established in 1849 and came into AAS ownership 100 years later; the *ApJ* was established in 1895, 100 years before becoming one of the very first scholarly journals online. One of the conditions for taking ownership of the *ApJ* from the University of Chicago in the 1970s included a provision whereby *journal proceeds were not to be used to directly fund the ongoing operations of the society*. This provision persists to this day.

Astronomy and astrophysics research has been very broadly accessible for the past 25 years as a result of the collaboration and peaceful coexistence of the SAO/NASA Astrophysics Data System, the arXiv preprint service, and the leading nonprofit publishers in the field, of which the AAS is the primary one (in terms of volume of published content).<sup>1</sup>

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<sup>1</sup> <https://adsabs.github.io/blog/nasa-open-access>

The AAS has been successful in providing open access to our journals and keeping that access open without additional licenses and paywalls since creating online editions of our journals starting in 1995. In compliance with the February 2013 OSTP guidelines, all AAS journals' content is made freely available to anyone 12 months after publication, and content from volume 1, number 1 for each title was long ago made freely available via ADS. Only the most recent 12 months of content is held back to retain the value of current subscriptions, while the arXiv provides a form of interim access.

Since 2017 we have offered a Gold Open Access publishing option for authors who want their articles freely available immediately, for which there has been a modest uptake among US-based authors (roughly 7% of all published content). Individual member subscriptions are available at very low cost (\$25 per year), public libraries may subscribe for *free* to the journals, and the subscription price for institutions reflects one of the lowest costs per page available. This long-standing commitment to the broadest possible access has been achieved through a publishing business model adopted by the AAS in the early 20<sup>th</sup> century and featuring a dual revenue stream. With a combination of subscription licensing fees (currently 35% of total revenue) and author charges (currently 65% of total revenue), the AAS has worked hard to keep the rates on both sides at cost and significantly below the standard for STEM journals. When we achieve cost savings, we pass those reductions along to our community of authors and readers, as stipulated by our leadership, which is composed of researchers in the field.

In keeping with our mission, the AAS journals are both rigorous and comprehensive, enjoying both very high impact factors and relatively high acceptance rates to ensure that our editors and referees work closely with authors to arrive at publishable results.<sup>2</sup> The AAS also has a long-standing commitment to shared research data, as described in our 16 March 2020 public comment on the OSTP's *DRAFT Desirable Characteristics of Repositories for Managing and Sharing Data Resulting from Federally Funded Research* (Document 2020–00689): "Since creating electronic editions starting in 1995, the AAS has encouraged researchers to submit data critical to their research result *along with their manuscript*. Machine-readable tables (MRT) and data-behind-figures (DbF) are examples of the research data integrated into and hence preserved for posterity in many thousands of research articles published in AAS journals. The AAS has employed trained astrophysicists as data editors and adopted publishing workflows that have helped researchers share their data for the past 20 years. These practices have led to the inclusion of a significant amount research data in the literature. Additionally, the AAS has spearheaded efforts to link to important, related data sets in federally funded data repositories and will continue to develop and deepen these connections."<sup>3</sup>

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<sup>2</sup> AAS Publications Committee, "Key Challenges for AAS Journals in the Next Decade," Astro 2020 Decadal Survey White Paper, (2019 BAAS 51(7) 026; <https://ui.adsabs.harvard.edu/abs/2019BAAS...51g..26L/abstract>)

<sup>3</sup> [https://aas.org/sites/default/files/2020-03/AAS-Response-OSTP-data%20repositories\\_RFC.pdf](https://aas.org/sites/default/files/2020-03/AAS-Response-OSTP-data%20repositories_RFC.pdf)

Our journals publish much of the very best research in astronomy and astrophysics, including 11.2% of all Nobel Prize-awarded articles in physics.<sup>4</sup> At the same time, research articles published in our journals have the longest citation half-life.<sup>5</sup> These statistics provide proof of our long commitment to the broadest possible access to our content.

Our authors have suffered a decline in the success rate in US federal grants in recent years, as well as a decrease in available funding for publication charges within federal awards. This relentless decrease in available research funds would only be exacerbated by a move to zero embargo, fully Gold OA publication. The higher page charges would increase the cost to authors by requiring them to offset the lost subscription revenue. These higher costs would impede access to our US published journals to US authors, while not significantly impacting access to competitive foreign countries who subsidize their publishers (e.g., *Monthly Notices of the Royal Astronomical Society* and *Astronomy & Astrophysics*) or pay publication fees from institutional or governmental resources.

Different scientific disciplines have different, long-standing cultures of scholarship and sharing, and we trust that OSTP will not apply blanket, one-size-fits-all policies that may address perceived problems in one area of science (e.g., biomedical) to the detriment of other areas of science (e.g., physics). We ask the OSTP to consider successful, well-established, dual-revenue-stream business models like the one in place at the AAS as a blueprint for the equitable sharing of publication costs and the advancement of public access.

We look forward to continuing the dialogue about maintaining best practices in the advancement of public access to federally funded research and data — a goal that we can all support.

Sincerely,

A handwritten signature in black ink, appearing to read "K. B. Marvel", written in a cursive style.

Kevin B. Marvel, PhD  
Executive Officer

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<sup>4</sup> *Nature*, "These four journals publish the most Nobel Prize-winning papers in physics," (<https://www.natureindex.com/news-blog/journals-publish-most-nobel-prize-winning-research-papers-physics>)

<sup>5</sup> Frank Timmes, "Evolution of the Most Cited Astronomy & Astrophysics Articles and Journals," ([http://cococubed.asu.edu/journal\\_pages/top50.shtml](http://cococubed.asu.edu/journal_pages/top50.shtml))