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Comments

Of the

American Society of Civil Engineering

To the

National Science Foundation

Request for Information (RFI) on NSF Public Access Plan 2.0: Ensuring Open, Immediate, and Equitable Access to National Science Foundation Funded Research; Correction

Docket No.: 88 FR 85664

January 19, 2024

Founded in 1852, the American Society of Civil Engineers (ASCE) is the country's oldest civil engineering organization. Representing more than 150,000 civil engineers from private practice, government, industry, and academia, it is ASCE's objective to advance the science and profession of engineering to enhance the welfare of humanity. As such, among its many endeavors, ASCE is the world's largest publisher of civil engineering information—producing more than 55,000 pages of technical content each year. The ASCE Publications Division produces 35 peer-reviewed research journals (available both in print and online editions), conference proceedings, standards, manuals of practice, technical reports, and monographs under the ASCE Press imprint. ASCE's many other resources for practicing civil engineers include the 170,000-entry Civil Engineering Database, a complete publications catalog, a conference video collection, and the ASCE Library, providing online access to over 700,000 pages of journal articles and proceedings papers.

ASCE is pleased to offer the following comments on the Request for Information (RFI) on the NSF Public Access Plan 2.0: Ensuring Open, Immediate, and Equitable Access to National Science Foundation Funded Research; Correction. The proposed plan was drafted in response to the White House Office of Science and Technology Policy (OSTP) guidance. The request for information was published in the Federal Register for comment on December 8, 2023, with the comment period closing on January 19, 2024.

ASCE Concerns

As stated in our letter of January 12, 2023 to Dr. Sethuraman Panchanathan, ASCE supports the principles of public access and endorses providing public access and enhancing dissemination of federally funded research to advance public health and safety and strengthen global quality of life. We acknowledge that the scientific and engineering communities must adapt to changing scholarly norms and must develop new dissemination models that address open access, however this must be done in a way that preserves the scholarly value of the peer-reviewed version of record, which is fixed at its time of presentation without any possibility of historical rewriting - that the original work cannot be altered by the author or anyone else. ASCE also believes that learned societies, acting in accordance with their educational mission, should be able to recover their costs of investing in managing the peer review process, editing, publishing, disseminating, and maintaining an ever-growing archive in perpetuity.

As written, the Office of Science and Technology Policy (OSTP) memorandum on which the RFI is based, implies that agencies may opt to require deposit of the accepted manuscript of their research paper (version that arises from peer review, but which has not yet been put through publishing process such as copyediting, XML markup, and so forth) or the version of record (final version published through publisher distribution channels) or may allow flexibility to the authors on this point. For society publishers that are heavily reliant on subscription revenues, a requirement to deposit the final version of record would more rapidly erode subscription value and force a swift shift to a fully Open Access (OA) business model reliant on article processing charge (APC) revenue from all authors. Such a hurried shift presents a couple of challenges:

- First, publishers will either need to provide APC waivers to authors without funding to
 cover the cost of publication in a fully OA business model (further inflating the APC rate
 for those who do have ability to pay, which will either require larger grant funding from
 the federal government or will result in less money available for research itself), or
 unfunded authors will be precluded from scholarly publication due to the barrier to pay,
 which presents equity challenges.
- Second, non-profit societies are largely not in a position to offset significant lost revenue
 with new business models as quickly as subscription revenue will likely decline, which
 will result in fewer programs and services to advance the various scientific and
 engineering professions they represent.

Each of these scenarios' present negative consequences on scientific and engineering professions and the research enterprise and could unintentionally penalize unfunded authors. ASCE strongly recommends that implementation of this OSTP memorandum focuses on author accepted manuscript and not version of record, therefore allowing flexibility to the author to protect researcher choice.

The memorandum leaves it to the agencies to determine whether publications will need to be deposited with broad re-use rights under licenses such as CC-BY or similar. Requiring liberal re-use rights under which third parties can re-use, redistribute, and create derivative works from

scholarly publications for any purpose (including commercial) presents significant damage to publishers, particularly society and non-profit publishers. In such a scenario, large commercial technology-focused entities and competitive commercial publishers may legitimately use the deposited scholarly publications to create their own comprehensive research databases supported by advertising revenues, to the detriment and extreme danger of society publisher business models. Further, such actions—particularly creation of derivative works—could present imminent danger to public health and safety, whether due to inadvertent misinterpretation or nefarious intent. In its policy statement on Publication of Publicly Funded Researchⁱ, ASCE "deems it essential to preserve the scholarly value of the peer-reviewed version of record, which is fixed at its time of presentation without any possibility of historical rewriting—that the original work cannot be altered by the author or anyone else."

ASCE believes that any public access mandates must "protect against the potential abuse or misuse of scientific and technical information." ASCE strongly recommends that implementation of this OSTP memorandum does not include any attachment of re-use rights and allows for use restrictions to prevent endangerment of public health and safety.

Additional areas of concern for ASCE include:

- Expectations on publishers to aid their authors in depositing their underlying data.
- Potential requirements for enhancements in deposited publications to allow for equitable access (e.g., machine readability, broad accessibility for assistive devices, etc.), which would further drive up the cost of publication and therefore APCs.
- The leeway for agencies to apply public access requirements for content beyond scholarly publications in journals, to expand to outputs such as peer-reviewed conference proceedings and book chapters resulting from federal funding.

ASCE Response to NSF Questions

- 1. Overall, do you view public access requirements as having more positive or more negative effects on equity and inclusion in science? Somewhat negative—As described above, we are concerned about equity and inclusion for authors around the globe without access to funding who may be unintentionally impacted.
- 2. Do you currently have access to data repositories that will enable you to comply with public access requirements? No, I do not have access—As a professional society, ASCE does not tend to work directly with data repositories. We leave it to our authors to choose where and whether to deposit their data.

Conclusion

ASCE supports NSF's goals in expanding public access to federally funded research, but advises that careful consideration be given to key decisions that may have serious ramifications for the financial viability of society publishers and professional societies, the proportion of funding available for research vs. remuneration of APCs, the representation of non-funded authors both within the US and abroad in the research literature, the preservation of peer review, and the protection of public health and safety. Thank you for your consideration of our view, if we can be of further service, please do not hesitate to contact Martin Hight, ASCE Senior Manager for Government Relations at mhight@asce.org or 202-789-7843.

ASCE Policy statement 538—Publication of publicly funded research (https://www.asce.org/advocacy/policy-statements/ps538---publication-of-publicly-funded-research#:~:text=The%20American%20Society%20of%20Civil,the%20global%20quality%20of%20life)