Sharpless, Katherine E.

From: public-access-bounces@nist.gov on behalf of John Tagler <jtagler@publishers.org>
Sent: Thursday, August 20, 2015 5:08 PM
To: public-access
Subject: [Public-Access] AAP-PSP and STM response to NIST RFC on Public Access Plan
Attachments: AAP STM comment on NIST public access plan.pdf; ATT00001.txt

Dear Ms. Sharpless,

I am submitting the attached letter on behalf of the Professional and Scholarly Publishing Division of the Association of American Publishers (AAP/PSP) and the International Association of Scientific, Technical, and Medical Publishers (STM), in response to the Request for Comments by the National Institute of Standards and Technology Plan for Providing Public Access to the Results of Federally Funded Research.

Thank you for your consideration.

Sincerely yours,

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AAP PROFESSIONAL AND SCHOLARLY PUBLISHING

August 20, 2015

Katherine Sharpless
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Re: Request for Public Comment: National Institute of Standards and Technology Plan for Providing Public Access to the Results of Federally Funded Research (Federal Register Doc. 2015-16508)

The Professional and Scholarly Publishing Division of the Association of American Publishers (AAP/PSP) and the International Association of Scientific, Technical, and Medical Publishers (STM) appreciate the opportunity to comment on the National Institute of Standards and Technology (NIST) Plan for Providing Public Access to the Results of Federally Funded Research (the Plan). AAP/PSP and STM are the major US and international trade associations for professional and scholarly publishers; like NIST, our 150+ members are guided by a commitment to advancing science, standards, and technology. Our members focus on creating and preserving the best scholarly communication, validated through peer review and disseminated worldwide to inspire new avenues of thought and advance discovery and innovation.

AAP/PSP and STM members include non-profit professional societies, commercial publishers, and university presses that create books, journals, computer software, databases, and electronic products in virtually all areas of human inquiry and activity. Collectively, they represent tens of thousands of publishing employees, editors and authors, and other professionals throughout the country who regularly contribute to the advancement of American science, medicine, learning, culture and innovation. They comprise the bulk of a $10 billion publishing industry that contributes significantly to the U.S. economy and enhances the U.S. balance of trade.

Our members publish the vast majority of materials used in the U.S. by scholars and other professionals in the sciences and other areas of scholarship, and they are the worldwide disseminators, archivists and shapers of the scholarly record in both print and electronic form. They make significant intellectual contributions and investments that improve the quality, discoverability, and availability of peer-reviewed articles and other publications. A major goal of our members' publishing activities is to help produce and provide access to high-quality peer-reviewed articles in a useful and user-friendly digital environment that enables researchers and other readers to discover, analyze, and link to the latest breakthroughs and developments in scholarly research. In particular, publishers of scientific and medical journals have, for more than 100 years, played an integral role in building and documenting the U.S. scientific research enterprise. Our members therefore are integral partners with the scholarly research community in the U.S. and with NIST as it seeks to promote research and innovation.

AAP/PSP, STM, and our members have supported the principle that the public should have access to articles that report on federally funded research. AAP/PSP publicly supported the February 22, 2013 Executive Office of the President Office of Science and Technology Policy memo on "Increasing Access to the Results of Federally Funded Scientific Research" (the OSTP memo), and our members have been working for years on efforts to promote sustainable public access. These efforts include free or low-cost access to articles for target communities through Research4Life (in partnership with the United Nations), the Emergency Access Initiative (in partnership with the National Institutes of Health), patientINFORM (in partnership with health advocacy organizations), and patientACCESS, among others. They also include innovative business models like article rental and delayed access that allow for easy free or low-cost access in a sustainable system. Many of our members voluntarily provide free access to all articles that they publish after a delay that is appropriate for their journals' disciplines and practices. Our members, as well as AAP/PSP and STM on their behalf, have participated in and supported many public-private partnerships to deliver value to the public, and they are supporting the collaborative effort of CHORUS (the Clearinghouse for Open Research of the United States) to deliver public access in a way that minimizes costs for the public, agencies, researchers, and publishers alike.

In this spirit, we welcome the opportunity to comment on NIST's Public Access Plan. While we understand that the Plan has been carefully crafted and integrates comments from stakeholders throughout the process, there are many details that will still need to be worked out in the implementation stage and in future revisions to the plan. We appreciate NIST's commitment to having comments received "inform NIST as it revises its directives that implement the Plan."

The comments below focus first on the second question prompt, as our comments here inform those that follow. We then treat the other three prompts in the order provided. All comments and recommendations are meant to support NIST's successful implementation of the Plan in collaboration with all scholarly communication stakeholders, advancing public access while ensuring a sustainable publishing environment.

What are the biggest challenges to implementing a public access policy, and how can these challenges be addressed?

1. **Free access to articles has the potential to destabilize scholarly communication. NIST should maintain its commitment to proceed carefully, incrementally, and in close consultation with stakeholders to avoid unintended consequences**

We recognize that the implementation schedule takes an incremental approach and provides for regular reviews of the impact of the policy, which we believe is appropriate. We also appreciate the opportunity for all who are affected by the policy to comment, including through this Federal Register notice. In particular, we appreciate that the evaluation will consider "the relative values of long-term preservation and access and its associated costs and administrative burden."

Several sections of the Plan indicate that NIST will regularly consult with the scientific community, including publishers, and maintain ongoing discussions. Our associations and their members have engaged in consultations with a coalition of agencies at the National Academies (in May 2013) and the Forum on Open Science and look forward to continued engagement. We would welcome even more open communication as the Plan is implemented.

2. The burdens of implementation on researchers, research institutions, publishers, and NIST could be considerable and grow exponentially. Consider more extensive public-private partnerships to reduce burdens and support the sustainability of scholarly communication.

The Plan's commitment that NIST "will establish a public access archive system" may have prevented NIST from considering options that could achieve its goals at lower cost and regulatory burden. We hope that NIST will consider leveraging existing resources where possible, as some other agencies have done in the development of their plan.

Although the Plan refers to PubMed Central as a public-private partnership, publishers have often felt that the implementation of PMC and the NIH Public Access Plan do not fully take their concerns into account. Some of these concerns include the diversion of traffic from publisher platforms,[1] the difficulty in obtaining usage data on publisher content accessed through the National Library of Medicine (NLM), and the reformatting of published content for delivery through NLM. In addition, some of the tools available to PMC under the NIH Public Access Policy and mentioned in the NIST plan may not be available for articles reporting on research funded by NIST, which are not covered by current publisher agreements with NLM.

We would welcome the opportunity to work with NIST to address some of these issues, consistent with the Plan's commitment to exploring new approaches and partnerships and the "guiding principle" that NIST may make changes to accommodate new technologies and find solutions that scale with the volume of research and public access solutions. In particular, NIST should consider solutions offered by non-governmental organizations, particularly CHORUS (the Clearinghouse for Open Research of the United States), that could significantly reduce the regulatory burden of the Plan, lower costs for the government and grantees, and support the sustainability of scholarly communication.

The potential regulatory burden of the Plan should not be underestimated. According to the Association of American Universities, it takes "23 steps and several emails for authors to submit manuscripts to PubMed Central" to comply with the National Institutes of Health's Public Access Policy, and others have suggested that the requirement is even more burdensome. A major study of the experience in the United Kingdom in implementing public access mandates quantifies the burden on UK researchers. The study found that the cost to research organizations of implementing mandates put in place by Research Councils UK and the Higher Education Funding Councils in 2013/14 was at least £9.2m and an amount of time equivalent to 110 fulltime staff members. The study also found that the compliance burden "falls disproportionally on smaller institutions." NIST should take steps to minimize any unnecessary costs and burdens in its implementation.

Distributed systems like CHORUS may also help with issues of integrating articles with appropriate databases and interoperability. Our members have found that integrating links to articles hosted by other publishers is possible in a single management system, and that services like CrossRef (which underlie some CHORUS services) facilitate such linking. CHORUS directly supports current policies and practices of researchers and publishers in providing access to articles and leverages resources already

[1] See Davis PM. 2013. Public accessibility of biomedical articles from PubMed Central reduces journal readership—retrospective cohort analysis. FASEB Journal 27 (7): 2536-2541 http://dx.doi.org/10.1096/fj.13-229922 and Davis PM. 2012. The Effect of Public Deposit of Scientific Articles on Readership. The Physiologist 55: 161-5 http://www.the-aps.org/mm/Publications/Journals/Physiologist/2010-present/2012/October.pdf

invested in by publishers. We understand that NIST is working on a pilot project with CHORUS and hope that this will lead to a true public-private partnership.

The Plan's staged approach to implementation should allow NIST to fully consider CHORUS and other possible options for providing access to support the research community in fully enabling public access. In contrast to the burdens reported for compliance with PMC, such solutions could enable automated compliance, reduce unnecessary federal investments, and allow researchers and their institutions to focus on research rather than administrative tasks.

We would also appreciate clarification of the requirement that authors submit copies of manuscripts to the NIST public access archive. In particular, this appears to conflict with the description of the utility NIST envisions from PMC, and would prevent researchers and NIST from taking advantage of existing infrastructure to minimize burdens for researchers, funded institutions, and publishers. Where possible, we recommend that NIST utilize and build on existing, independent, third-party services, including distributed systems like CHORUS and archive solutions like Portico and CLOCKSS.

3. Differences in scholarly communication practices among disciplines means that NIST's public access policy will impact some fields more than others. NIST should provide additional opportunities to change the embargo for fields that have longer article lifecycles.

We appreciate that the Plan includes an opportunity to petition for changing the embargo, and that the first mention of a 12-month embargo is modified by the right for NIST to change the embargo. We hope such an adjustment will be considered quickly, as the initial 12-month embargo for all disciplines is inconsistent with evidence and the need to sustain the quality, integrity, and availability of high-quality peer-reviewed articles reporting on scientific research.

Rather than setting a 12-month embargo for all articles, an evidence-based policy would recognize the differences among practices in various fields and set embargoes appropriately. According to a study by Dr. Phil Davis evaluating usage patterns in more than 2800 journals across 10 disciplines,[2] half of the lifetime downloads for the articles published in a volume occur three years or more after publication for the majority of journals and this "half-life" varies considerably by discipline. This is important information, because usage is a key criterion for library subscription decisions.[3] Surveys[4] and direct communication with librarians further indicate that short embargoes could reduce the incentive to subscribe.

These results are consistent with the experiences of some of our members and with what is known about the use of articles by researchers. The American Psychological Association (APA) found that less than 16 percent of the usage of APA psychology journals occurs in the first year, and the American Mathematical Society (AMS) found that only 10 percent of the citations in the mathematics literature were to articles published in the previous three years combined. In addition, as reported by NSF-supported researchers at Indiana University, some papers in some fields can "remain dormant for years

[2] Phil Davis, "Journal Usage Half-Life." www.publishers.org/usagestudy.
[3] For a survey of the research on cancellations related to usage data, see J. Williamson, P. Fernandez, and L. Dixon, "Factors in Science Journal Cancellation Projects: The Roles of Faculty Consultations and Data," *Issues in Science and Technology Librarianship* 78, Fall 2014. http://www.istl.org/14-fall/refereed4.html.
[4] See, e.g., http://blog.alpsp.org/2009/10/alpsp-survey-of-librarians-report.html

and then suddenly explode with great impact upon the scientific community."[5] This indicates that usage varies significantly between and among journals.

The importance of such evidence to the sustainability of journals and maintenance of subscriptions is supported by experience. To cite a few examples:

- The Genetics Society of America piloted a 3-month embargo for *GENETICS* and had "a high rate of subscription cancellations";[6]
- The *American Journal of Pathology* tried a 6-month embargo, and "subscription renewals declined precipitously";[7] and
- The *Journal of Clinical Investigation* found a too-short embargo unsustainable. After a 10-year experiment that saw the journal lose 40 percent of its institutional subscriptions, it had to reinstitute the subscription model to survive.[8]

Although each of these examples involves an embargo shorter than 12 months, each of them also involves a journal that publishes in the health sciences, which is the fastest-moving field and has the highest level of federal support. We would expect that journals in other fields would have similar issues with uniformly imposed 12 month embargoes.

Throughout the world, funders have implemented policies that recognize inherent differences among the practices of different disciplines, and we urge NIST to do the same. As one example, in the United Kingdom, policymakers have instituted as a starting point a 24-month embargo for articles in social science and humanities journals and 12 months for other disciplines. We recommend that NIST use the Davis study and other evidence to set differentiated embargoes by discipline, as suggested in the OSTP memo.

We also recommend that NIST consider expanding its criteria and approach to petitions for changing the embargo. We call your attention to language in the National Science Foundation's Public Access Plan, which calls for "factually and statistically based evidence that a change … will more effectively promote the quality and sustainability of scholarly publications while meeting the objectives of public access." We also recommend that you allow any stakeholder, not just "NIST customers," to initiate such a petition.

The wrong policy carries the risk of undermining the quality and sustainability of scholarly communication and thereby reducing the availability to NIST-funded researchers of established, high-quality journals in which to publish.

4. The costs for public access could quickly escalate, even as resources for research are constrained. NIST must ensure adequate resources are available to support allowable costs for access to publications and data.

Existing Department of Commerce practice allows grant proposals to include funds for communicating the results of the research, and the Plan notes that "costs for data preservation and access may be

[5] NSF News from the Field, "Like Sleeping Beauty, Some Research Lies Dormant for Decades, IU Study Finds," May 25, 2015. http://www.nsf.gov/news/news_summ.jsp?cntn_id=135258&WT.mc_id=USNSF_195&WT.mc_ev=click.
[6] http://www.whitehouse.gov/sites/default/files/microsites/ostp/scholarly-pubs-(%23293)%20gsa.pdf.
[7] http://www.whitehouse.gov/sites/default/files/microsites/ostp/scholarly-pubs-(%23259)%20ASIP%20response.pdf.
[8] Reported in http://scholarlykitchen.sspnet.org/2009/02/26/end-of-free-access.

included in grant proposals or project plan budgets for contracts." Although the Plan does not mention costs for publication explicitly, we hope that such costs for publishing and broadening access to articles, if applicable, continue to be allowed.

In addition, grantees frequently need supplemental funds for publication or for data access that were unforeseen at the time of the proposal, or for expenses that have been incurred after the grant period has ended. We encourage NIST to make sure that sufficient funds are available to cover all such expenses and also that "no-cost extensions" of grants are available without prejudice to enable the full communication of research findings whenever articles may be ready to be published.

5. **Public access policies could undermine intellectual property and copyright, and affect American competitiveness by shifting costs to the US that are currently borne worldwide. Such potential negative impacts should be regularly assessed and addressed.**

We appreciate the Plan's commitment that "NIST will…recognize …. intellectual property rights, avoiding significant negative impact on intellectual property rights, innovation, and U.S. competitiveness." Such a commitment needs to be followed with regular assessment and adjustment to the policy where there could be impact.

The Plan acknowledges that even when free access to content is provided , such content is still protected by copyright law. As the Plan is implemented, it must continue to allow authors, publishers, and other copyright holders to set licenses that are appropriate to the material covered, and avoid any overreach in terms of usage rights requirements. Appropriate licenses, together with appropriate embargoes, can help support the sustainability of scholarly publishing and ensure the quality and integrity of the scholarly record.

Inasmuch as the Plan is designed to promote U.S. economic competitiveness, care must also be taken to combat piracy by clearly communicating license terms and taking steps to prevent bulk downloads where the license does not allow such use.

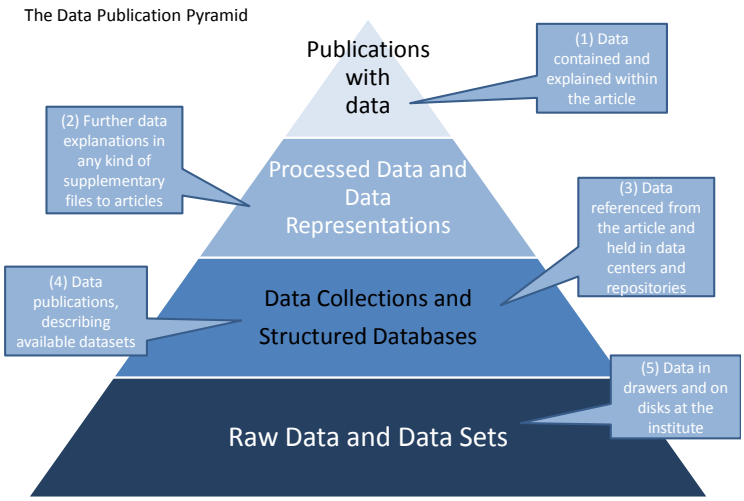
What are the best practices (from academia, industry, and other stakeholder communities) in managing public access of data?

In addressing issues related to public access to data, flexibility is key. As with scholarly communication practices with respect to articles, different fields have unique research practices. The Plan implicitly recognizes this by focusing on Data Management Plans (DMPs), rather than creating universal requirements for all researchers.

In addition to publisher efforts to create and disseminate publications that report on and analyze the latest research, publishers have considerable experience and have made significant investment in digital technology, metadata standards, and tools to help users understand and work with data. Publishers support the discoverability and reuse of scholarly data and are actively working with researchers and standards organizations to develop tools and processes to ensure the availability and utility of such data. NIST should capitalize on existing standards and practices in different fields, and avoid creating new and conflicting requirements.

As with sharing publications, there are considerable burdens to formatting data, tagging it with metadata, and otherwise preparing for the sharing of data. Publishers have found that collaborative private sector solutions can minimize costs and burdens for all involved, and we encourage NIST to leverage existing efforts. Publishers are working with repositories to better link to data, ensure quality citation, and develop metadata standards, and we look forward to continuing our partnerships with research communities in ensuring the quality and integrity of available data collections.

NIST could learn from initiatives already underway to standardize metadata and provide links between sources of research information. Issues related to expanding access, managing data, minimizing compliance costs, and other policy questions are already being worked through by various groups engaged with the issue. We encourage the continued evolution of programs that are working to improve data stewardship and public access to data. These include the Research Data Alliance (RDA), CrossRef, DataCite, Opportunities for Data Exchange (ODE), APARSEN, and the NISO/NFAIS Supplementary Journal Articles Material Project, among others. Such collaborative approaches provide the best way forward towards broad access to and preservation of digital data.



It is critical that NIST continue to distinguish between data and various types of presentation of data and preserve and respect intellectual property protection and copyright ownership as appropriate. The Data Publications Pyramid displayed here,[9] derived from open science pioneer Jim Gray's e-science pyramid, provides a model for understanding how research data can be presented in a variety of ways with increasing levels of curation and analysis. NIST has already acknowledged the different levels of the pyramid by referring to "peer-reviewed publications and associated data" separately from "NIST scientific data." As the Plan is implemented, NIST must continue to distinguish between information products at different levels of the pyramid and work with all stakeholders, including primary researchers, secondary researchers, publishers, libraries and data centers, to create clear rules and protocols for the sharing of data. A collaborative approach will ensure that the needs of each stakeholder group are addressed and that the progress of science is not impeded. In particular, the need to expand incentives for providing broad and timely access to new data must be balanced with the need to preserve incentives for researchers to interpret and analyze their results through curation and peer-reviewed publication.

Rather than imposing an inflexible mandate, NIST should focus on supporting and encouraging the development of cyber infrastructure, standards for the structure of data and metadata, navigation tools

[9] As appearing in the October 17, 2011 *Report on Integration of Data and Publications*, a report of Opportunities for Data Exchange which brings together stakeholders including researchers, publishers, libraries and data centers to support a more connected and integrated scholarly record. Full report available at http://www.alliancepermanentaccess.org/wp-content/uploads/downloads/2011/11/ODE-ReportOnIntegrationOfDataAndPublications-1_1.pdf

and applications to achieve discoverability and interoperability and ensuring appropriate and sustainable funding for innovation and long-term stewardship. These policies should be developed in collaboration with all key stakeholders involved in the presentation, analysis, deposit, storage, and preservation of data. NIST should promote a comprehensive framework for reliable digital data preservation, access, and interoperability through the promotion of standards and clear rules developed by the scholarly community. NIST could also support pilot projects, data curation programs, and interpretation initiatives for the relevant scholarly disciplines.

With regard to the top of the data pyramid and data associated with articles, NIST should encourage data to be deposited in accordance with the policies of the publication and standard citation practices, such as those being developed by the National Information Standards Organization (NISO) and others. In addition, NIST should recognize the need for different repositories for different communities. This is consistent with distributed approaches that have been successful throughout the research community and which could be successful for publications as well.

What criteria could the NIST laboratories use in prioritizing the public release of datasets?

As noted above, NIST should proceed carefully in imposing new burdens on researchers and in developing the capacity to accurately and consistently provide quality access to datasets. The best way to proceed would be to prioritize first those data that are already being made available and/or which already have proper formatting and tagging to ensure their integrity and utility. These data tend to be those towards the top of the pyramid. Publishers are already working with researchers to make such material more widely available and link them to articles that put the data in context and provide additional background on its collection.

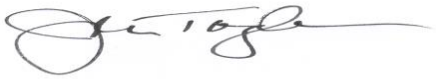
NIST could also prioritize those data that are most useful to the public. Statistics on the use publicly available data can be obtained from existing data repositories or the use of material already available to NIST. Where the usage data is available to NIST through its own means, it would be helpful for NIST to share such data with content providers or the broader public. Publishers have helped develop the COUNTER system for accurate usage data collection on the usage of publications, and the sharing of COUNTER-compliant data by NIST would help improve the release and usage of datasets.

How can NIST improve its plan to provide greater public access to NIST data?

In addition to the recommendations above, the best way to improve the plan is through continued clear communication and engagement with scholarly community. The Plan consistently and repeatedly indicates that NIST will be actively engaged in consultation with all parts of the scholarly community, and we are encouraged that the Plan explicitly notes that implementation will take place over time. We hope that this will enable NIST to carefully assess the impact of its policies and adjust the plan as needed, in consultation with all stakeholders. We all urge NIST to consider both positive and negative effects on scholarly communication and the availability of diverse, high-quality peer-reviewed articles and research data in any analysis of the Plan. The high-quality peer reviewed articles that our members produce represent significant investments by publishing organizations to improve, disseminate, interpret, and steward those reports, and the ability to continue making those investments and ensuring the quality and integrity of the scholarly record depends on the sustainability of the publishing enterprise.

Thank you for the opportunity to comment on the Plan. We look forward to future opportunities to provide input on and collaborate in ensuring access to high-quality peer-reviewed scholarly communication.

Sincerely,



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