

TO: Office of Science and Technology Policy publicaccess@ostp.gov
FROM: Daniel Lee, Tucson, Arizona
RE: Request for Information: Public Access to Peer-Reviewed Scholarly
Publications Resulting From Federally Funded Research
DATE: Friday, December 23, 2011

The following comments are in response to the request for information issued November 3, 2011, by the Office of Science and Technology Policy (OSTP) regarding recommendations on approaches for ensuring long-term stewardship and broad public access to the peer-reviewed publications arising from federally funded research. I would like to thank OSTP for the opportunity to respond and contribute to the conversation. My comments follow.

(1) Are there steps that agencies could take to grow existing and new markets related to the access and analysis of peer-reviewed publications that result from federally funded scientific research? How can policies for archiving publications and making them publically accessible be used to grow the economy and improve the productivity of the scientific enterprise? What are the relative costs and benefits of such policies? What type of access to these publications is required to maximize U.S. economic growth and improve the productivity of the American scientific enterprise?

- The most important step agencies could take to leverage the results of research funding to help maximize economic growth is to require publications that follow from such funding be made openly available to all. A truly open solution would allow anyone to read, revise, redistribute, and reuse both the content and the publication.
- On the one hand, this would get the research findings out to small businesses and other entrepreneurs, who currently have little or no access to the literature, in order for them to build on them and create new products, services, markets, and jobs.
- On the other hand, this would allow for the creation of new markets in products and services making use of the publications themselves to expand the usefulness of the literature. These new value increasing ventures would further increase exposure of research findings leading to greater impact of the federal investment.

(2) What specific steps can be taken to protect the intellectual property interests of publishers, scientists, Federal agencies, and other stakeholders involved with the publication and dissemination of peer-reviewed scholarly publications resulting from federally funded scientific research? Conversely, are there policies that should not be adopted with respect to public access to peer-reviewed scholarly publications so as not to undermine any intellectual property rights of publishers, scientists, Federal agencies, and other stakeholders?

- First, it is important to recognize that copyright resides with the author/creator unless and until s/he transfers that right to another party such as a publisher. A research funder could reasonably require authors to adjust these rights in some way or other. Research funders that are the author's employer might indeed be the rights holder themselves and thus impose even greater control over how rights are managed. Given that scientist/authors and such funders are usually more interested in getting read and having impact than in controlling rights, protecting the intellectual property of publishers doesn't seem like a helpful place to start.
- This isn't to say that publishers don't add value and that their investment in that value doesn't need protection of some sort. They do and it does. Some of that protection will come from being the first one to release a publication, and some protection will come from being responsible for the version of record. More specific answers to this question will come out in the answers to other questions posed here regarding possible embargo periods and the possibility of distributed archives.

- In this same vein, though, it should also be noted that fee based can certainly compete with free (and that the entertainment industries contrary cries of lost revenue from file sharing are grossly overstated). Most often this can be done by adding value, but in many cases a fee based publisher's copy could likely compete merely by being the source for the imprimatur of quality and being the known source. A good example is UMI/ProQuest's ability to generate sufficient revenue from the services they provide around dissertations while many of the universities that supply them with these dissertations make copies openly available through various repositories. The point here is that Federal agencies may not need to provide much protection of publisher investments.

(3) What are the pros and cons of centralized and decentralized approaches to managing public access to peer-reviewed scholarly publications that result from federally funded research in terms of interoperability, search, development of analytic tools, and other scientific and commercial opportunities? Are there reasons why a Federal agency (or agencies) should maintain custody of all published content, and are there ways that the government can ensure long-term stewardship if content is distributed across multiple private sources?

- It may be possible to achieve broad public access to peer-reviewed scholarly publications that result from federally funded research through a metadata repository that points to openly available copies on publishers' websites. However, some mechanism or incentive would have to be in place for the funding agencies to ensure compliance with the agencies' interest in broad public access and the "long-term stewardship" of those publications.
- As funding agencies relationship is with the scientist/authors and not publishers, it's difficult to conceive of what that would be. Assuming the broad possibilities for the multitude of audiences, including machine audiences, intended by the full interpretation of "open" in the first comment, publisher compliance would likely entail adjustments to publisher web platforms. Full compliance should also include making copies available in a standard mark-up language such as XML to support wide range of discovery and re-use tools.
- The strongest incentive would seem to be that driving audiences to publisher web platforms in this manner would be one strategy to protect and exploit their investment in the original publication. However, the difficulty in ensuring full compatibility of multiple platforms strongly suggests funding agencies may indeed require custody of copies of publications to achieve both goals of broad public access and long-term stewardship.

(4) Are there models or new ideas for public-private partnerships that take advantage of existing publisher archives and encourage innovation in accessibility and interoperability, while ensuring long-term stewardship of the results of federally funded research?

- See comment 3.

(5) What steps can be taken by Federal agencies, publishers, and/or scholarly and professional societies to encourage interoperable search, discovery, and analysis capacity across disciplines and archives? What are the minimum core metadata for scholarly publications that must be made available to the public to allow such capabilities? How should Federal agencies make certain that such minimum core metadata associated with peer-reviewed publications resulting from federally funded scientific research are publicly available to ensure that these publications can be easily found and linked to Federal science funding?

- The metadata repository that points to openly available copies on publisher websites envisioned in comment 3 – or any cross agency repository - would require the interoperability suggested here. By being responsible for the metadata that leads to persistent connections to peer reviewed publications agencies would be able to make certain the necessary metadata was present. Standard fields such as author, author affiliation, paper title, journal title, date, volume, issue (where applicable), pagination, funding agency, grant number/program, and persistent link

seems like a good start. For discovery, all the metadata as well as the full text of publications should be available for indexing by any viable enterprise from general search engines to indexing and abstracting services targeting specific research areas.

(6) How can Federal agencies that fund science maximize the benefit of public access policies to U.S. taxpayers, and their investment in the peer-reviewed literature, while minimizing burden and costs for stakeholders, including awardee institutions, scientists, publishers, Federal agencies, and libraries?

- This is a very important goal. Simplifying processes that funded scientists and their institutions go through to meet agency requirements for accountability would lower overhead costs and allow for more research to occur. Common, consistent requirements and processes across funding agencies would also contribute to greater return on investment. Researchers want to do research and share the results, not satisfy bureaucracies.
- One way to simplify compliance by funded scientists/authors would be to include submission of copies of manuscripts or published papers, or links to already openly available publications, in the standard reporting mechanisms. Simple procedures that fit into an existing workflow have the best chance of achieving desired ends with minimal additional burdens.
- This also raises the need for agencies to include funding for publication costs in grants. Quite often papers are published about the results of the funded research after the funding period (and sometimes funds) has run out. This suggests that allowances need to be built in to grants to allow for spending on publication costs after the normal grant period.

(7) Besides scholarly journal articles, should other types of peer-reviewed publications resulting from federally funded research, such as book chapters and conference proceedings, be covered by these public access policies?

- Any peer reviewed publication that directly documents the analyzed findings of research that is funded by Federal agencies should be considered for inclusion.

(8) What is the appropriate embargo period after publication before the public is granted free access to the full content of peer-reviewed scholarly publications resulting from federally funded research? Please describe the empirical basis for the recommended embargo period. Analyses that weigh public and private benefits and account for external market factors, such as competition, price changes, library budgets, and other factors, will be particularly useful. Are there evidence-based arguments that can be made that the delay period should be different for specific disciplines or types of publications?

- Immediate open access to peer-reviewed publications that result from federally funded scientific research is the policy ideal. However, different business models to pay the costs of publication exist and likely should be accommodated to ensure a wide range of distribution channels. Many journal publishers already track their revenue streams and are well aware of the point of reasonably diminishing returns. Some of these found that point to be one or two months. Any embargo that is allowed has the possibility of protecting the investment made in publication. However, no embargo should be allowed that exceeds the point where exclusivity demonstrably protects that investment. Given the six month maximum embargo already in place by policy in Canada, the United Kingdom, and the European Union, this would appear to be a useful cap to achieve consistency across research funders.