



Task Force on Public Access to Scholarly Publications  
National Science and Technology Council  
Executive Office of the President  
Washington, DC 20502

23 Dec. 2011

Response to Request for Information: Public Access to Peer-Reviewed Scholarly Publications Resulting From Federally Funded Research (76 Fed. Reg., 68518, 4 Nov. 2011)

Dear Members of the Task Force on Public Access to Scholarly Publications:

With nearly 400,000 members in more than 160 countries world-wide, IEEE is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. In addition to our conferences, standards and other activities, IEEE publishes more than 150 transactions, journals and magazines, which represent more than 30% of the world's annually published literature in electrotechnology, computing and related fields.

IEEE is a strong supporter of public access within a context that protects and advances other important societal interests inherent in scholarly publishing, including peer review, protecting the integrity of the research archive, and preserving the intellectual property rights of authors and publishers. IEEE's long-standing policies permit authors to "self-archive," i.e., to post their articles either on their personal web sites or their employers' web sites, consistent with open access practices. IEEE is also experimenting with several open access business models with the goal of supporting sustainable open-access publications. Our views were outlined in greater detail in a 2007 IEEE Position Statement on "Scholarly Publishing", which is available on-line at:

[http://www.ieee.org/documents/IEEE\\_Publishing\\_Principles.pdf](http://www.ieee.org/documents/IEEE_Publishing_Principles.pdf)

IEEE believes that learned societies serve an important role as the unbiased custodians of peer-reviewed scholarly literature, archived as a trusted version of record. Among the principles that should be respected in the dialogue on public access are the following:

- It is important that any approach be financially self-sustaining. All publishing and archiving activity carries costs that require offsetting revenue models. The development of any repositories – public or private – must account for funding to support costs. Sustainability is enhanced when US agencies avoid investing in information delivery systems that duplicate services already provided by publishers. This is especially important at a time when the US government is trying to control its operating costs and reduce the national debt.

- Any approach must be protected from censorship by any source, including government policy agendas.
- Any approach must protect the rights of authors to publish in the forum that they believe is most appropriate for their work.
- Interoperability is an excellent way to achieve these goals because the research results could continue to reside in a version of record at the publisher's site but be more easily reached from other indexing or search services. Indeed, the IEEE already supports these efforts through its participation in industry organizations like CrossRef and NISO.

Dealing with these complex issues will require more than just the exchange of written documents. IEEE strongly supports formal collaboration among stakeholders in public-private working groups, as recommended in the 2009 Scholarly Publishing Roundtable Report. We would be pleased to provide representatives to serve on collaborative groups convened to deal with these issues.

Please see detailed responses to OSTP questions following this letter.

Sincerely,

A handwritten signature in black ink, appearing to be 'Moshe Kam', written in a cursive style.

Moshe Kam, Ph.D, P.E.  
IEEE President and CEO

## **IEEE Response to OSTP Questions on Public Access to Scholarly Publications**

With respect to the specific questions posed in the Request for Information issued 3 Nov. 2011 by the Office of Science and Technology Policy on behalf of the National Science and Technology Council, IEEE is pleased to provide the following input:

***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?***

Agencies should set policies that assure long-term sustainability of the distribution mechanisms favored by public policy. Free access to research results benefits those who can exploit those results, either to advance the research further or to create commercially viable new products. However, without sound business models to support continuous publication and archiving of new results, over time dissemination will become less reliable. A proliferation of publications and archives that lack strategies to support ongoing costs poses a near-term threat to established journals supported by conventional subscription plans. In the long term, even soundly established open access publications may suffer in a field that is largely populated by underfunded and unsustainable journals and archives.

One of the priorities in any Federal public access policy should be to ensure affordable access to research results by small and medium-sized business, especially start-ups and other known job creators.

***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?***

Peer review must continue to be available, free of government influence and management. Each published paper should be available in a single final authoritative version. This version must be unable to be altered by the author or anyone else. Authors should have the freedom to choose where to publish and readers should have the freedom to choose where to read.

Policy should allow for public access to the author-prepared manuscript of an article, as accepted by the publishing journal and incorporating the author's changes that result from the publisher's peer review process. However, this publicly available version should always include a Digital Object Identifier (DOI) or a link to the publisher's version of record. In no

case should policy permit the harvesting or public posting of the final published version, in whole or in part, of an article.

Respect for US copyright law would also logically imply that when funding agencies make copyrighted work available to the public, they do so without encouraging or condoning the reuse of that work without permission of the copyright holder. In other words, no provisions of existing copyright law are to be abrogated by government action.

Peer review is only one part of the value added by publishers to scholarly research, which also includes editorial review, abstracting, indexing, and provision of accessible on-line portals for subject-matter searching. Increasingly, publishers are expected to share with the library community the responsibility for archiving published works in perpetuity. Public access policy should recognize and preserve the full range of value added by scholarly publishers.

***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?***

Through appropriate regulations and standards, interoperability can be fostered among publishers and funding agencies to ensure sharing and archiving of funded research results to the benefit of the public good.

On the other hand, there is no compelling argument for the US Federal Government to make substantial investments to duplicate the considerable and expensive infrastructure already developed over many years by scholarly publishers. There is also no assurance that a central government operation can provide the archiving capability already long established by publishers and libraries.

The government's stewardship interest is adequately served by a combination of distributed publication of articles supported by interoperable search and retrieval mechanisms, and by maintaining custody of research reports filed by principal investigators with their Federal funding agencies.

***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?***

The least costly approach to enhancing public access to government research captured in the form of scholarly publications is to collaborate with scholarly publishers. Collaborations can be explored in several areas, including literature and data hosting, interoperability standards, and common search tools and portals.

Government should work with current owners of content repositories (e.g., not-for-profit learned societies, commercial publishers, universities) to enable public access to research funded by Federal monies. Government investing in the development of its own content repositories makes little sense from an economic perspective. The cost and time required would be significant and not necessarily viewed as prudent, especially in the current economic times. Government could far more easily leverage the expertise of not-for-profit learned societies, commercial publishers and universities in operating large repositories of scientific papers by, for example, providing funds to enable the publishers to appropriately tag content under a public access policy and thus ensure transition from closed to open status within a single hosting platform.

***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?***

Rather than establishing new content repositories, the US Government should support and cooperate with the scholarly publishing industry in its efforts to set standards for interoperable search and improved discoverability of content. CrossRef, a not-for-profit association founded by scholarly publishers in 2002, has pioneered the development of the Digital Object Identifier (DOI) as a unique identifier to locate every published scholarly work. IEEE and other scholarly publishers would support an initiative to enhance article metadata with information clearly identifying the agency responsible for funding the described research. Agencies would save considerable effort and expense by supporting improvements to DOI metadata that would automatically capture this essential information.

Similar collaboration between public and private sectors will lead to success in efforts to provide identifiers for data sets that are created in connection with funded research. Examples include DataCite ([www.datacite.org](http://www.datacite.org)) and the NISO/NFAIS Working Group on Supplementary Journal Information ([www.niso.org](http://www.niso.org)).

Another example of a collaborative approach among publishing partners is the Open Researcher & Contributor ID (ORCID) project ([www.orcid.org](http://www.orcid.org)), a successful public-private partnership with 275 participating organizations. This project addresses name ambiguity among individual authors and the resulting difficulties in consistent author attribution.

***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?***

These goals can be advanced by fostering the development of standards for interoperability among content creators and agency repositories, the US Government and its agencies can avoid costly duplication of services while delivering to taxpayers the results of funded research.

It is important to remember that publication is an integral part of the research process. Nothing is free. Supporting the publication costs of researchers publishing in an open access environment as part of the research grant is essential.

***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?***

Both types of identified content – books and conference proceedings – have unique characteristics that differentiate them from scholarly journals.

Conference proceedings provide early reports of results by researchers, and therefore may be seen as highly desirable content to be made publicly accessible. In the technology fields in which IEEE participates, the conference record often plays a more important role than it might in basic science. As a result, the differences between a conference article and a journal article are narrowing. Therefore, if conference proceedings are to be considered for public access, the same principles of interoperability contemplated for journals should also apply to conference articles, as should the principle of directing users to the publisher's site to obtain the version of record. Finally, sustainability in public access to conference articles should be encouraged by use of grants to support publishing costs.

Books and book chapters are an entirely different class of publication, usually synthesizing the work of an author from a long period of time and generally more difficult to connect to specific research grants. In terms of financial investment, books present publishers with more concentrated risk than do journals, and therefore federally mandated public access to book content is likely to be far more problematic to publishers. From an author's standpoint, books generally involve enhanced levels of intellectual property, including detailed publisher contracts and ongoing royalty arrangements that would be impacted by a public access mandate.

***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?***

The answer to any question of appropriate embargo period is complex and may vary according to the field of science, engineering or technology researched and how the public

interest in free access is defined, including the mission and goals of the particular federal-funding department or agency.

The current NIH model, allowing 12 months' delay to public access, is motivated by the rapid advances characteristic of health-related research combined with the understandable desire of patients to get timely access to news of potential medical treatments and newly discovered health risks.

By contrast, most engineering, science and other types of technical information have a longer useful life. The IEEE's premier journal, the *Proceedings of the IEEE*, has a cited half-life of over 10 years (Thomson Reuters Journal Citation Reports, 2010 Science Edition). As a further example of the long useful life of content in the engineering field, an analysis of usage in 2010 of the IEEE Xplore Digital Library – the full offering of IEEE's archived content – shows that usage of articles published in 2009 and 2010 amounted to about 34% of total usage. In other words, nearly two-thirds of 2010 usage was of articles published before 2009; an embargo period of 12 or even 18 months is not adequate in this context.

***Please identify any other items the Task Force might consider for Federal policies related to public access to peer-reviewed scholarly publications resulting from federally supported research.***

IEEE has no additional items to propose at this time, but is eager to participate in public-private working groups to address public access issues.

In conclusion, IEEE appreciates the opportunity to provide input to the Task Force's deliberations and stands ready to answer questions and provide additional information as needed. If we can be of any further assistance, please contact Kenneth Moore, Director, IEEE Book & Information Services (e-mail: [k.moore@ieee.org](mailto:k.moore@ieee.org); tel: 732-562-3954).