



ASSOCIATION OF AMERICAN UNIVERSITIES

Executive Vice President

January 21, 2010

Dr. Diane DiEullis
Assistant Director, Life Sciences
Office of Science and Technology Policy
Attn: Open Government
725 17th Street, NW
Washington, DC 2050

Re: Public Access Policies for Science and Technology Funding Agencies Across the Federal Government

Dear Dr. DiEullis:

I am pleased to submit comments on increasing public access to the results of federally funded research on behalf of the Association of American Universities (AAU). AAU is an association of 60 U.S. and 2 Canadian universities distinguished by strong programs of research and graduate education. AAU's U.S. universities conduct 57 percent of federally funded research and award 53 percent of the nation's PhDs. AAU universities are thus major contributors to the international scholarly publishing system as well as primary consumers of the products of that system. As noted in the RFI, increasing public access to federally funded research can increase the return on that investment in a number of ways including expanding access to the results of research for the taxpayers who funded that research and providing a richer, more interconnected foundation of research results to support future scholarship.

The comments below on specific questions draw heavily on the report of the Scholarly Publishing Roundtable. The Roundtable was created last June by the House Science and Technology Committee in cooperation with the Office of Science and Technology Policy (OSTP) to develop consensus recommendations for expanding public access to the journal articles arising from research funded by agencies of the U.S. government. AAU strongly supports the recommendations of the Roundtable report, which are the product of extensive deliberations by individuals from the diverse stakeholders in the scholarly publishing system. A copy of the report may be found at

http://www.aau.edu/policy/scholarly_publishing_roundtable.aspx?id=6894.

1. *How do authors, primary and secondary publishers, libraries, universities, and the federal government contribute to the development and dissemination of peer reviewed papers arising from federal funds now, and how might this change under a public access policy?*

In the current interdependent system of scholarly publishing, the federal government plays a critical role in the funding of research. Researchers and scholars conduct research and then as authors report the results of that research to other scholars. Publishers play an essential role in managing the peer review of those research reports and producing the final journal articles. Universities provide the infrastructure for much of the basic

research conducted in the nation and provide significant funding for that research as well, and university libraries play an essential role in the acquisition, dissemination, archiving and preservation of scholarly literature. All of these roles will need to continue in the future, but the allocation of responsibility across the sectors of the scholarly publishing system may change. For example, university libraries may play a greater role in the dissemination of research results in the future through the creation of publically accessible university repositories, and the federal government may play an increased role in the dissemination of research results through the creation of public access databases such as NIH's PubMed Central. Publishers will continue to play an essential role in the management of much of the peer review processes, copy editing and other aspects of operation of the scholarly publishing system, though their business models will no doubt continue to evolve over time.

2. *What characteristics of a public access policy would best accommodate the needs and interests of authors, primary and secondary publishers, libraries, universities, the federal government, users of scientific literature, and the public?*

The critical interests of researchers/authors are timely access to high-quality research results. Much of that access will continue to be provided through subscriptions to journals, while government public access policies will provide broader free public access to journal articles after some necessary delay following the publication of those articles in a subscription-based journal. Over time, if the scholarly publishing system is able to evolve from the subscription-based system that currently dominates scholarly publishing to an open access system where the costs of publishing are paid up front, a public access policy could meet the interests of scholars and the broader public in the same system by providing virtually free, immediate access to the results of federally funded research once they have been peer reviewed and put into final form by publishers. Although a number of successful open access journals now exist, it is not clear how widely these methods of scholarly publishing will be adopted. A broadening of the federal role in supporting the research enterprise from funding the conduct of research to supporting also its dissemination through funding the publishing fees for open access publishing would greatly assist a transition from subscription-based to open-access publishing, simultaneously advancing the interests of scholars and the public.

3. *Who are the users of peer-reviewed publications arising from federal research? How do they access and use these papers now, and how might they if these papers were more accessible? Would others use these papers if they were more accessible, and for what purpose?*

The primary users of peer-reviewed publications are research scholars, and those scholars access those publications primarily through journal subscriptions. As the volume and cost of the scholarly literature increases, a broad government public access policy has great potential to expand access to scholarly publications for those sectors that would use but cannot afford access to the full corpus of the scholarly literature. In particular, a government public access policy that provides free public access to journal articles would allow non-research-intensive colleges and universities which cannot afford the growing costs of journal subscriptions to gain access to the results of federally funded research. A government public access policy could expand opportunities for students to draw on scholarly publishing for educational purposes as well.

4. *How best could Federal agencies enhance public access to the peer-reviewed papers that arise from their research funds? What measures could agencies use to gauge whether there is increased return on federal investment gained by expanded access?*

A broad, multi-agency public access program providing free public access to the results of federally funded research after some period of delay following the publication of those results in peer-reviewed journals could provide an effective means of greatly expanding access to journal articles while sustaining the existing scholarly publishing system as it evolves in the future. NIH's PubMed Central provides one model for such a public access policy. Other agencies may choose to develop variations on that model, for example, by collaborating with research libraries or publishers to create public access databases of the results of research funded by those agencies. Such a multi-agency public access program should have a set of basic common properties across agencies that support ease of submission by universities and their faculties and

interoperability across agency databases, while at the same time permitting sufficient flexibility for each agency to match its public access policy to its mission and clientele. The success of such public access policies in promoting broad public access could be measured by number of visits to the databases over time; the success of access policies in providing improved support of scholarship would be more difficult to measure but could be gauged by surveys of researchers concerning their access practices.

5. *What features does a public access policy need to have to ensure compliance?*

In the long run, compliance will be promoted most effectively by procedures ensuring ease of submission and by interoperability and reuse capabilities that support the needs of scholars and the interests of the public. More immediately, a multi-agency public access program will no doubt require legislation or regulation that specifies coherent common submission practices. OSTP could play an important role in coordinating the development of such a multi-agency program and its interface with external stakeholders.

6. *What version of the paper should be made public under a public access policy (e.g., the author's peer reviewed manuscript or the final published version)? What are the relative advantages and disadvantages to different versions of a scientific paper?*

It is highly desirable to have the Version of Record (the final published article and any subsequent updates or modifications of that article) as the version of a journal article circulating in public databases. However, copyright law limits the extent to which the Version of Record can be required to serve as the public access version of the paper. Thus, government agencies may only be able to require submission of the final accepted manuscript. Because there will be cases of disparities between these two versions of a journal article, public access policies will benefit greatly from cooperation between government agencies and nongovernmental publishers that result in mutually acceptable procedures for making the Version of Record the public access version of the article.

7. *At what point in time should peer-reviewed papers be made public via a public access policy relative to the date a publisher releases the final version? Are there empirical data to support an optimal length of time? Should the delay period be the same or vary for levels of access (e.g. final peer reviewed manuscript or final published article, access under fair use versus alternative license), for federal agencies and scientific disciplines?*

Peer-reviewed papers should be made public through a public access policy as soon as possible after those papers have been published in peer-reviewed journals. For subscription-based publications the "embargo" period must be long enough that the public access policy does not threaten the viability of the publisher through loss of subscription revenue. For open access publishers, because the revenue to meet publication costs is provided up front, the embargo period can be zero. The embargo period will also vary by discipline. For example, the period can be shorter in fast-moving disciplines like many of the life sciences; however, the embargo period would need to be longer in the humanities and social sciences, where the useful life of articles extends much further out in time. For practical considerations, seeking a commonality across disciplines and across agencies in the embargo period will be important for the administration of a broad, multi-agency public access policy. For most of the sciences, an embargo period of no more than 12 months currently seems to be a workable period, preserving the revenue stream of publishers while providing as rapid public access as possible. Thus, a 12-month embargo period with the option for publishers where feasible to specify a shorter period and the ability where necessary for a publisher to appeal for a longer period seems to be a workable standard.

8. *How should peer-reviewed papers arising from federal investment be made publicly available? In what format should the data be submitted in order to make it easy to search, find, and retrieve and to make it easy for others to link to it? Are there existing digital standards for archiving and interoperability to maximize public benefit? How are these anticipated to change?*

NIH's PubMed Central is the major federal public access program to date. Many of PubMed Central's policies and procedures are proving highly effective in supporting access, searchability and use. PubMed Central's document type definition (DTD) is becoming a widely accepted standard architecture for online journal articles in the life sciences. However, some aspects of the submission process to PubMed Central require duplication of effort by publishers or authors. In addition, NIH's DTD standard still has some limitations in inter-database interoperability. It would be very much in the interest of scholarship and public access for the federal government to substantially increase its investment in cyber-infrastructure programs in pursuit of a long-range goal of an interconnected international network of public access databases with the capacity for interoperability and reuse across databases comparable to that which currently exists within databases such as NIH's PubMed Central.

9. *Access demands not only availability, but also meaningful usability. How can the Federal government make its collections of peer-reviewed papers more useful to the American public? By what metrics (e.g. number of articles or visitors) should the Federal government measure success of its public access collections? What are the best examples of usability in the private sector (both domestic and international)? And, what makes them exceptional? Should those who access papers be given the opportunity to comment or provide feedback?*

The utility of a multi-agency public access program will be most effectively advanced by having clear, consistent procedures for submission of articles, an easily understood common method of accessibility, and an interconnection across databases that allows a user to move easily within and across their contents. A great deal of work is underway, both in this country and in other countries, within government agencies as well as nongovernmental entities including both commercial and noncommercial publishers, universities and others. The federal government, perhaps under the leadership of OSTP, should seek to connect to these various initiatives with the goal of developing common procedures that bring the results of international scholarship under a common functional umbrella of a network of interconnected public access databases.

Much of the development of a multi-agency public access program can and should be developed under structurally simple, clear legislation or regulation that provides common properties across agencies while still supporting flexibility among agencies. However, to achieve the full potential of a network of international public access databases, federal agencies will have to reach beyond their statutory and regulatory boundaries to collaborate voluntarily with nongovernmental stakeholders in this country and others. This combination of developing a core government public access program through legislation or regulation and expanding that program through voluntary collaboration with other stakeholders will advance the support of scholarship and public access to that scholarship along a continued upward trajectory.

Sincerely,



John C. Vaughn