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The Office of Science and Technology Policy (OSTP)

The Graduate Representative Organization (GRO) of Johns Hopkins University, representing over 2000 graduate students in Arts & Sciences and Engineering, hereby present our response to the Request for Information regarding Public Access to Peer-Reviewed Scholarly Publications Resulting from Federally Funded Research.

- (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?

**Federal Funding agencies that fund research in Universities and other Research institutions in the U.S. should make the results of this funding, i.e. the peer-reviewed publications, freely and immediately accessible to the public. The taxpaying public should be able to access the results arising from spending their money - furthermore they should be able to use the data to create derivative interpretations or computations.**

**For Graduate students especially, access to prior research in the form of articles constitutes the building blocks of education and continuing research. Denial of access of articles to the student population literally extinguishes any potential breakthroughs that could have been made. In the current state, graduate students at the more wealthy institutions have a wider access to research articles, and this creates an unfair disadvantage to students in other institutions. In addition, once students leave an academic institution, their access to research diminishes, and this impedes their ability to stay current, and utilize their knowledge in entrepreneurial or other private ventures. The productivity of the U.S. scientific enterprise can only be improved by opening up the potential of these untapped avenues, enabling unforeseen participants and new research pathways to be created from existing research and data.**

**The NIH reports \$3.5-4.6 million as the annual cost of providing access to all of their funded research. This is an investment of less than 1/100<sup>th</sup> of 1 percent of their annual budget. The benefits are estimated at 8 times the cost (Houghton & Sheehan, 2006,**

<http://www.cfses.com/documents/wp23.pdf>). **Leveraging existing infrastructure, as well as utilizing the investments already put into place by NIH can reduce costs of extending the current NIH policy to other funding institutions. Implementing an open access policy to federally funded research supports informed and transparent federal science budget by increasing accountability.**

**We are in support of full and immediate open access, including rights to re-use fully in a digital form. Immediate access ensures quick and effective turnaround of research, and restrictions on re-use limits the returns to taxpayers. In addition, this would provide the most benefits with minimal additional costs.**

- (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?

**Public access, as well as the IP interests of stakeholders, can be achieved simultaneously by leveraging the existing copyright framework. There are several licenses, such as the Creative Commons CC-BY license, which can be applied to scholarly articles, which allows for immediate access, as well as appropriate re-use, while discouraging infringement. A suitable compromise can be an embargo period, as in the case of the current NIH statutes, where fair-use rights apply. After this period, articles should be re-licensed to be more open, so that the public make complete use of them.**

- (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?

**Since the federal government is providing the funding, it is the appropriate entity to provide stewardship of the articles. The public access policies must ensure that the federal government must have**

**adequate rights to archive and distribute publicly funded articles. The storage can be over multiple repositories for each of the funding agencies, with a central repository containing the entire database. Suitable private entities could also be invited to store a portion or the entire repository of articles, provided they meet guidelines for ensuring access to the public. This could encourage public / private partnership, and reduce the cost to the federal agencies, even though the NIH example shows that the additional cost to maintain a public access repository is minimal as compared to the agency budget.**

- (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?
- (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?
- (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?

**Public access policies should take advantage of existing infrastructure and protocols to ensure automatic deposit of manuscripts to the appropriate repositories. In addition, the submission of articles should be integrated with grant management and feedback – this would also contribute to increased accountability. The policy must also be implemented uniformly across all federal funding agencies, to reduce complexity for scientists and research institutions. Any embargoes and related policies regarding relicensing should also be uniformly implemented, to minimize overhead for publishers and libraries.**

- (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?

**Educational materials that result from publicly funded research should be made accessible to the public – this may include book chapters, conference proceedings and other research reports. The policies that govern the access of these may need to differ from those for journal articles. Peer-reviewed conference proceedings are a significant proportion of published research output, and may contain information that is unavailable or unpublished in journals. Conference proceedings may also be a first step towards a journal publication. There are also certain fields, e.g. information technology and computer science, where the research turnaround is so rapid that most, even high impact research is published as conference proceedings. Thus they should be included in the same category as journal articles with respect to policies regarding public access.**

- (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?

**As a representative organization of graduate students, we are in support of immediate access, with no embargo period. Typical courses last 3-4 months, and students should be able to stay up-to-date on the research that is happening during their courses. This is especially true of graduate level courses, many of which are based on current research, and have projects, which seek to improve the existing knowledge in their field.**

**However, we understand that publishers rely on subscription income, and to achieve an acceptable compromise, an embargo may be needed. An author-determined embargo period of 0-12 months is the norm in many countries, and this has proven effective in the NIH case as well. Any higher periods than that run the risk of seriously slowing down the pace of research. Embargos of 12 months or less have also been adopted by several journals already. Thus we recommend an embargo of less than 12 months, with the emphasis being on keeping it as low as possible to avoid detriment or slowing down of the U.S. scientific enterprise.**

Yours truly,

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