

Response to the Office of Science and Technology Policy public consultation on Public Access to Federally Funded Research

Submitted by the international Confederation of Open Access Repositories (COAR)
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Introductory Comments

We would like to thank the White House Office of Science and Technology Policy for initiating this very important consultation on public access to research outputs. The Confederation of Open Access Repositories (COAR) is a not-for-profit association of repository initiatives that was launched in the Open Access Week at the DRIVER Summit in October 2009. We have members from over 25 nations around the world and are working towards the development of a global network of open access repositories to enhance the wide visibility and applicability of research outputs. COAR promotes infrastructure interoperability and a joint global data store of open access repositories to enable and support the re-use of data by service and portal providers. In particular, this will support the implementation of mandates of research funders and institutions. More information about COAR can be found on the temporary website: <http://coar-repositories.org/>.

Governments have a strong interest in developing efficient scientific information systems that maximize the impact of public investments in research. Improving the linkages between research and society is a key strategic aim. Yet, the current system for disseminating scholarly research is neither effective nor sustainable. Rapid price escalations in scholarly journal subscription rates, often referred to as the 'serials pricing crisis', have seen the costs of academic journals sharply climb for the past three decades.ⁱ Even the most well endowed research library cannot afford to provide access to all of the content requested by its faculty and students. The situation is even more critical for smaller colleges and universities, and institutions in the developing world, which already have limited budgets. In 2003, the Director-General of UNESCO, Mr. Koïchiro Matsuura stated that "Most developing countries have so far been unable to take full advantage of the advances offered by new information and communication technologies in terms of access to scientific and technological information and learning opportunities."ⁱⁱ The most effective way to address existing barriers to research dissemination is for research funders and universities around the world to implement public access policies. We have prepared responses that address all three phases of the consultation below.

Implementation

Whether explicit or implicit, the transfer of research knowledge into society is part of research funding agencies' mandates. The Internet has created unprecedented opportunities for widespread knowledge sharing and public access to research results has become a viable option. The SHERPA-JULIET service in the UK, which monitors funding agency policies, now lists over 50 funding agencies with open access mandates from over 15 different countries.ⁱⁱⁱ

Public access is best ensured by the wide spread adoption of public access policies by funding agencies and research institutions. Ideally, policies should require that affiliated authors make their research articles freely available through an institution or subject-based open access repository within 6 months of publication. Based on the previous experiences of other agencies around the world, we believe that public access policies are best designed as follows:

- **Policies must be mandatory.** The very low deposit rates of NIH funded researchers in response to the NIH voluntary policy demonstrated the need for a mandatory policy^{iv}. This was also exposed in a 2005 survey of UK researchers, which found that about 15% of authors were willing to self-archiving in a repository on a voluntary basis, but 95% indicated that they would self-archive if their institutions and/or funders mandated it.^v
- **Versioning:** Public access policies should require that researchers deposit the author's final version after peer-review has been completed and provide detailed information where the manuscript will be published (including persistent identifiers such as URN, DOI). This is the version that users need in order to learn accurately about the results of the research, and this is the version that belongs in the permanent archive. Currently, according to the SHERPA-ROMEO service in the UK, 63.2% of journals already allow the author's final version to be made open access.^{vi} These include major commercial publishers such as Elsevier, and many of the large society publishers. Research funding agencies have a central role in determining publishers' policies and these numbers are likely to increase if more funding agencies require that final authors versions of papers to be archived. Currently, published versions and author manuscripts are usually in PDF formats (which is non-proprietary format since 2008 as already noted by other contributors in this forum). Proprietary formats reduce the usability of the papers and create a barrier to developing value added services. The ideal long-term storage format is open standard, meaning the specification is freely available and implementable.^{vii}
- **Timing:** Policies should require that articles be deposited immediately upon publication, and made accessible within a 6-months of publication. The optimal scenario is that papers are made available immediately upon publication. However, in general a 6-month delay is acceptable in order to allow publishers maintain a revenue stream for their journals. A delay of access beyond 6 month would decrease the value and impact of the public access policy.^{viii}
- **Ease of compliance:** Complying with a public access policy should not be onerous for authors. Repositories can assist with deposit and much of the deposit procedures can be automated. For example, the SWORD protocol has developed a standard deposit mechanism that could be used for to simultaneous deposit into repository and publisher.^{ix} In addition, most repositories have the ability to embargo access for a given length of time.

Features and Technology

The continually expanding global network of open access repositories now numbers over 1500 worldwide^x. These repositories are the instruments by which research articles should be publicly archived and made available. Repositories are usually managed by research and higher education institutions and offer a permanent and trusted location for the corpus of scholarly literature in a digital environment.

Repositories currently adhere to an internationally agreed upon set of technical standards (OAI-PMH) by which they expose the metadata of their content making them 'interoperable'. We envision a corpus of open access content upon which value added services can be built (commercial or non-commercial). Examples of these services are: text mining, citation and usage services, or curated special collections. For this to occur, the content within must be free of licensing conditions attached and available in non-proprietary formats.

Management

Based on the previous experiences of other agencies around the world, we maintain that the following components are necessary to ensure compliance:

- **Policies must be mandatory.** The very low deposit rates of NIH funded researchers in response to the NIH voluntary policy demonstrated the need for a mandatory policy^{xi}. This was also exposed in a 2005 survey of UK researchers found that study which found that about 15% of authors are self-archiving voluntarily, but 95% indicated that they would self-archive if their institutions and/or funders mandated it.^{xii}
- **Policies must be monitored for compliance.** Compliance with a public access policy should be attached to any future funding decisions. There are ways of monitoring this, through the use of grant numbers inserted into the metadata of the deposited papers. Grant numbers would then be searchable and granting agencies would hypothetically be able to glean other valuable information related to funding decisions.
- **Policies should be consistent across agencies.** Researchers are often funded through multiple research agencies. In a global research context, it is increasingly problematic to have a wide variety of access policies with differing requirements of researchers. A consistent, nation-wide approach would cut down on confusion and greatly improve compliance levels. In addition, a uniform nation-wide approach to public access policies in the US would also be helpful for publishers in developing more consistent self-archiving policies.

In conclusion, we believe that current research dissemination practices do not adequately meet the needs of all stakeholders – especially the public who has funded much of this research through taxes. Millions of policy makers, clinicians and practitioners, small businesses, students and educators, patients and their families, and others are without ready or affordable access. With the Internet comes the opportunity and the imperative to share these results widely so all citizens can access, use and build upon research results in new and innovative ways.^{xiii} In addition, economic analyses have shown that an open access system as a whole would also cost less than the current subscription-based system in the UK. A study conducted by Houghton et al. concluded, for example, that, "(s)haring research information via a more open access publishing model would bring millions of pounds worth of savings to the higher education sector as well as benefiting UK."^{xiv} Presumably, the savings of open access in the US would be even greater.

We appreciate the opportunity to comment and would like to thank you again for initiating this very important consultation.

ⁱ According to the Association of Research Libraries (ARL), the average cost of a serial subscription for ARL member libraries increased by 315% from 1989 to 2003. This increase far exceeds the rise in the Consumer Price Index of 68% for those years. From 2003 on, average journal prices have increased more slowly, but still continue to rise by about 9% a year. Journal Economics: A Turning Point: <http://www.acrl.ala.org/scholcomm/node/9>

ⁱⁱ UNESCO's Approach to Open Access and Public Domain Information: http://portal.unesco.org/ci/en/ev.php-URL_ID=8439&URL_DO=DO_PRINTPAGE&URL_SECTION=201.html

ⁱⁱⁱ <http://www.sherpa.ac.uk/juliet/index.php?sortby=country>

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- ^{iv} National Institutes of Health. Public Access Working Group Report, 2009.
http://www.nlm.nih.gov/od/bor/workgroup_roster.html
- ^v Swan, A. and Brown, S. (2005) Open access self-archiving: An author study.
[<http://eprints.ecs.soton.ac.uk/10999/>]
- ^{vi} <http://romeo.eprints.org/stats.php>
- ^{vii} <http://www.rsp.ac.uk/pubs/briefingpapers-docs/technical-preservformats.pdf>
- ^{viii} In the case of Humanities and Social Sciences some funders allow a delay of up to 12 months. This may prove necessary for special types of publications (such as books) or for a transitional phase. Compare for example the Open Access Pilot of the European Commission and the European Research Council (ERC),
<http://www.openaire.eu/>
- ^{ix} <http://www.ukoln.ac.uk/repositories/digirep/index/SWORD>
- ^x <http://www.opendoar.org/find.php>
- ^{xi} National Institutes of Health. Public Access Working Group Report, 2009.
http://www.nlm.nih.gov/od/bor/workgroup_roster.html
- ^{xii} Swan, A. and Brown, S. Open access self-archiving: An author study. 2005,
<http://eprints.ecs.soton.ac.uk/10999/>
- ^{xiii} Text adapted from the Open Access Scholarly Information Sourcebook:
http://www.openoasis.org/index.php?option=com_content&view=article&id=547&Itemid=265
- ^{xiv} Houghton, John, Bruce Rasmussen, Peter Sheehan, Charles Oppenheim, Anne Morris, Claire Creaser, Helen Greenwood, Mark Summers and Adrian Gourlay. Economic Implications of Alternative Scholarly Publishing Models: Exploring the costs and benefits. JISC, January 27, 2009.
<http://www.jisc.ac.uk/publications/publications/economicpublishingmodelsfinalreport.aspx>