
Perceived Barriers to Open Access: A View from the Biological Sciences

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NIH - Why “Public Access”?

- A permanent archive of peer-reviewed, NIH-funded research publications will ensure the permanent preservation of vital findings and help NIH meet its mission to improve health through research.
- This archive, searchable with modern information technology tools, will enable NIH more efficiently to manage and better understand its research portfolio, monitor its scientific productivity, and ultimately, help set research priorities.
- This strategy will also enable NIH to advance its goal of creating end-to-end, paperless grants management process.
- Last, but not least, it will make the published results of NIH-funded research readily accessible to scientists, physicians, and the public.

- From Jane Griffith, NLM Assistant Director for Policy and Legislative Development, Presentation, 1/15/2005

“Public Access” Policy adopted by the National Institutes of Health

- The final policy requests that NIH-funded investigators submit electronically to the NIH the final, peer-reviewed author's copy of their scientific manuscripts as soon as possible, and within 12 months of final publication.
- Policy makes it clear that it is up to the author to decide to comply, and also to choose the time of deposit.
- Copy will then be made publicly available in the NIH National Library of Medicine's (NLM) PubMed Central (PMC)
<http://www.pubmedcentral.nih.gov/>.
- NIH Director Elias Zerhouni emphasizes that this policy is designed to give “Maximum flexibility to ensure maximum participation”

Responses to Policy from Public

- **Cumulative Number of Responses: 6,249**
 - Internet: 5,839 (93%)
 - Fax: 1 (<1%)
 - E-mail*: 384 (6%)
 - Postal: 25 (<1%)
- **Cumulative Feedback on Concept (Web form Only)**
 - Agree: 2,402 Responses (41%)
 - Disagree: 454 Responses (8%)
 - Box Not Checked: 2,983 Responses (51%)
- **Cumulative Feedback on Implementation (Web form Only)**
 - Agree: 3,874 Responses (66%)
 - Disagree: 1,275 Responses (22%)
 - Box Not Checked: 690 Responses (12%)
- From NIH website: www.nih.gov/about/publicaccess, 1/072005

Examples of Public Comments - Pros

- Taxpayers should have timely access to research results
- Access strengthens and expands impact of research.
- Should improve health outcomes.
- Allows improved access to information.
- Allows equal access (individuals, institutions, and countries)
- Online access less expensive and easier to obtain.
- Proposed policy (6 month embargo) provides a good compromise.
- Without such an access policy, government favoring publishers at taxpayers' expense.
- This policy will improve the visibility of my work as a researcher.

- From NIH website: www.nih.gov/about/publicaccess, 1/072005

Key Concerns / Perceived Barriers: Four Main Categories

- Cost and other concerns about \$\$\$\$\$
- Potential negative impact on quality
- Ownership/Intellectual Property concerns
- Wider access potentially harmful, not helpful

Cost and Other \$\$\$\$ Concerns

- Open access will harm financial stability of publishers.
- Policy redundant to existing information sources and systems.
- Overall implementation of this plan is too costly.
- This policy may lead to an increase in cost for publications or an increase in costs for researchers to submit work.
- Open Access policy will hurt societies and the efforts that they support financially.
- There is no proven business model to support Open Access.

Cost and Other \$\$\$\$ Concerns - Publishing Industry

- No data shows that libraries are likely to cancel subscriptions en masse because of the Open Access policy.
- Only a portion of articles published in journals result from research funded by the NIH. NIH funded research represents only ~10% of articles indexed by PubMed.
- Many journals already provide access to published articles immediately or within one year of the publication.
- Other components of journals bring value to the reader, and are not covered under OA policy.
- DOAJ lists over 1400 OA journals - variety of business models being deployed.

Cost and Other \$\$\$ Concerns

New System

- NIH would use existing information technology infrastructure housed at the NLM, to achieve cost-effective approach to expanding system.
- NIH has estimated system would cost \$2 million in FY2005, and between \$2-4 million per year in out years - a sum less than .001% of total NIH annual budget.
- Estimates are based on the number of NIH-funded manuscripts projected to be archived and vendor cost estimate to tag information.

Quality and Editorial Concerns

- Concern that an Open Access policy will adversely impact peer review of research prior to publication.
- Concern over the potential for multiple versions to be available to readers could cause will be confusion and potentially deliver incorrect information.
- Worry that that all journals (for profit and other wise) will be less likely to accept publicly-funded research if they are required to comply with an Open Access policy.

Quality and Editorial Concerns

- No one is talking about abandoning peer review!
- Peer Review is a hallmark of quality journals, and NIH explicitly acknowledged the role of publication in peer-reviewed journals in hiring, promotion, and tenure decisions.
- System is self-correcting - any publisher that chooses (now or under a Open Access model) to opt for quantity of papers over quality will see its reputation (and ultimately its coffers) suffer.
- The NIH Open Access policy calls for archiving only manuscripts that have been peer-reviewed and accepted for publication by a journal, and NIH will continue to support the peer review process by supporting investigators who voluntarily serve as reviewers and editors for peer-reviewed journals.

Intellectual Property Concerns

- The proposed Open Access policy does not adequately address copyright issues.
- The proposed Open Access policy potentially interferes with technology transfer issues.
- Additionally, in the U.S., such an access plan potentially in conflict with Freedom of Information Act, Administrative Procedures Act, Regulatory Flexibility Act, Paperwork Reduction Act, OMB Circular A-76, and even the US Constitution

Intellectual Property Concerns

- Copyright is not affected by this Open Access policy. Funding recipients may continue to copyright works arising from NIH-funded research.
- Authors may continue to assign these rights to journals, and copyright holders may continue to enforce these copyrights.
- A a copyrighted document from an NIH archive will be subject to the same rights and restrictions as copying an article from the library, and PubMed Central already includes a copyright notice alerting the public to the rights of copyright holders.
- The other objections (Bayh-Dole, Regulatory Flexibility Acts, etc.) are stopgap objections designed to slow process down.

Wider Access Potentially Harmful

- Regardless of enhanced access, general public does not understand research.
- Concerned that multiple versions will be confusing and deliver incorrect information.

Wider Access Potentially Harmful

- A great deal of biomedical material is already available on the web.
- Patient advocates encourage patients to get better educated about medical conditions affecting them.
- If material is truly difficult for general public to understand, but public interest is there, opportunity exists for publishers add value by providing interpretive layer.
- Issue of multiple versions can and will be addresses by library professionals.

Objects Organized but Fairly Predictable

- Objections raised by community of stakeholders in biomedical fields are commonly echoed in other disciplines.
- Concerns fall into several specific categories; true concern of most publishers is financial ramifications, but quality, copyright, and interpretability are very common objections as well.
- Legal front largely untested - suspect this is about to change. For summary of legal objections raised by two U.S. Society interests, see:
- www.the-aps.org/news/nihaccesscomments.htm
- Objections are often based on lack of data; one of the most effective strategies to counter them is to deploy lots of Open Access experiments.