



Alliance for Taxpayer Access
www.taxpayeraccess.org

**PUBLIC ACCESS TO TAXPAYER-FUNDED RESEARCH:
9 COMMON MYTHS**

MYTH #1: Taxpayers are not “entitled” to free access to federally funded research. After all, tax dollars subsidize wheat farmers too, but that doesn’t mean free bread for every American.

REALITY: The economics of disseminating *information* and *ideas* are far different than the economics of *consumable goods*. As George Bernard Shaw explained, “If you have an apple and I have an apple, and we exchange these apples then you and I will still each have one apple. But if you have an idea and I have an idea, and we exchange these ideas, then each of us will have two ideas.”

This is especially true on the Internet because there is virtually no marginal cost for serving additional readers. Taxpayers have a right to expect an optimal return on their investment in research, which is achieved only when dissemination is maximized. Broader dissemination spawns further and faster new discoveries.

The real issue is, “Why would taxpayers *not* be entitled to access?”

MYTH #2: The government funds research, not peer review. Public access would give taxpayers free access to value that publishers have added.

REALITY: Peer review is conducted by the volunteer efforts of scientists and scholars, not by paid publishing staff. Publishers often coordinate this process, but the lion’s share of the cost is borne by scientists’ employers (e.g., universities) and the grants that sustain their work.

Still, publishers *do* add value to the publicly funded articles that they obtain for free. The Federal Research Public Access Act explicitly acknowledges the publishers’ contribution by providing for a public access embargo of up to six months. This provision balances important interests: it allows adequate time for publishers to recoup their costs while ensuring that research is widely available while it still is useful. The legislation appropriately recognizes that it is not necessary for publishers to have *exclusive* rights to the federal research they publish.

MYTH #3: Quarterly journals and non-profit publishers deserve special “protection” from the impact of public access.

REALITY: There is no evidence that the viability of any journal is put at risk by public access. A recent survey¹ of libraries by the Association of Learned and Professional Society Publishers (ALPSP) indicates that the vast majority of librarians are not considering canceling journal subscriptions in response to public access availability of research.

It has been claimed that a six-month embargo will not adequately protect quarterly journals. However, this kind of thinking ignores the opportunity for such journals to increase the timeliness of their electronic editions, thus enhancing the protection provided by an embargo and better serving readers.

If a publisher is prepared to capitalize on new opportunities presented by new technology, and adapt to the changing environment, electronic editions of journals can be updated with new research on a daily basis. That kind of change is good for science. To provide special protection for less timely journals only reinforces an unnecessary and counterproductive artifact of print publishing. Pushed to an extreme, a potential unintended consequence of offering special protection to quarterly journals is to encourage publishers to split monthly or bi-monthly journals into two quarterly journals – thus avoiding public access.

It also has been suggested that programs of non-profit publisher that are subsidized with profits from journal publishing will be put at risk. However, these programs are already at risk as a result of declining library subscriptions. If publishers are truly concerned about such risks, they should already be examining alternative means of supporting discretionary programs that their members deem worth continuing.

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MYTH #4: The U.S. Government should not be making it easier for the rest of the world to access the results of U.S.-funded research.

REALITY: U.S. taxpayers benefit from discoveries made by scientists both at home and abroad. Indeed, scientists from numerous nations often work together on research teams. Substantial leverage on the U.S. research investment is obtained when a discovery reported by an NIH investigator leads to a further advance by a researcher in India, Poland, or elsewhere. This leverage is worth encouraging and expanding. Imagine, for example, the potential harm if information about avian flu were not shared internationally.

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¹ Survey results not yet published, but result described in a recent ALPSP e-mail available in the ATA files.

MYTH #5: The current state of access to research findings is perfectly adequate. The need for expanded public access is unproven.

REALITY: Access to the full texts of research findings is far from ubiquitous. Despite the connectivity of the Internet, users from the scientific world – and beyond – face numerous obstacles to accessing all the research they need when they need it. This works against the public interest since federally funded research is not being fully used and applied.

Even the wealthiest private research institution in the U.S. can afford access to less than 70% of the peer reviewed research, and for thousands of public and private colleges, universities, and research centers in the U.S. the situation is even worse. Since a growing body of evidence demonstrates that when scientific research is accessed more frequently it has greater impact on subsequent research², it is clear that public access, by eliminating use barriers, will expand the application of research to further advances.

In its report on the FY 2004 budget for the Department of Health and Human Services, the U.S. House of Representatives Appropriations Committee expressed its concern about accessibility of federally funded research: “The Committee is concerned by reports that there has been a significant change in the availability of research data internationally and a dramatic rise in medical research data subscription costs”.³ A report back to the committee from the National Library of Medicine confirmed the committee’s concern: “These trends have adversely affected the ability of academic and health sciences libraries to continue to support the needs of the research and health care provider communities for access to biomedical literature.”⁴

Congressional concern was reinforced in the Appropriations report on the FY 2006 DHHS budget: “The Committee is pleased that NIH is moving forward to implement its public access policy and is hopeful that the policy will be a first step toward providing free and timely access to the published results of all NIH-funded biomedical research. The Committee endorses NIH’s expressed goals for the policy, namely to create an archive of NIH-funded research, to provide an opportunity to better manage the NIH research portfolio, and to provide enhanced public access to NIH research results. The Committee is concerned, however, that the final policy may not achieve these goals.”⁵

Public access accommodates not just scientists’ increasing needs to communicate and collaborate – it also addresses the public’s rising interest in self-education on health matters and need to see the results of their investment. Unfortunately, the access barriers faced by non-scientists such as teachers, patients, health practitioners, or small businesses are far greater than those encountered by scientists. Sharon Terry, President of the Genetic Alliance and mother of two children with a rare genetic disease called PXE, has described the problem in personal terms:

² See <http://opcit.eprints.org/oacitation-biblio.html>.

³ House Report No. 108-188, p. 89.

⁴ National Library of Medicine, *Access to Biomedical Research Information* (May 2004), p. 1

⁵ House Report No. 109-143, p. 104

When we went to try to find [information on PXE], we discovered that it was very hard to get. We lived in the Boston area at the time and were lucky to be able to go to one of the best medical libraries in the world. We went to the Harvard University library and found that we had to pay \$25 to get in the door, which we understood because it's a private university. So we paid the \$25, but after about ten trips to the library we decided we couldn't afford to continue that way.⁶

The goal of taxpayer access to federally funded research is not satisfied by access to a print copy of a single article at a local library after a waiting period required to fulfill an interlibrary loan request.

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MYTH #6: Publishers already are working to provide better access. They don't need a government mandate to force them to do it.

REALITY: Such publisher efforts, which coincide with a growing public call for free access to government-funded research, are far from universal or systematic and mainly focus on allowing free access to older material that is of reduced importance. Furthermore, there is no assurance that publishers will continue providing access indefinitely. The publisher schemes also fail to accommodate new data mining and linking techniques available in a public digital archive.

Today, most of the world's estimated 20,000 journals do *not* offer free access to federally funded research. A patient, practitioner, teacher, or scientist in need of timely and targeted information is still likely to be thwarted by subscription barriers or fees for access to a single article. In addition to being limited in scope, publishers' steps do not address the need for permanent digital archiving.

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MYTH #7: Researchers don't truly understand public access. More time is needed for education.

REALITY: The active discussion of public access has been going on in the scientific and publishing communities since at least 1999, when then-NIH Director Harold Varmus first advanced the proposal that ultimately led to establishment of NIH's PubMed Central digital archive.

In July 2004, NIH Director Elias Zerhouni, Dr. Varmus's successor, furthered the discussion of access to NIH-funded research by conducting multiple public meetings with publishers, scientists, and patient groups in July and August 2004. Based on these meetings, Dr. Zerhouni developed a proposal for free public access to NIH-funded research and it was published in the *NIH Guide* on September 3, 2004 and in the *Federal Register* on September 17, 2004. Between

⁶ Interview with Sharon Terry available at <http://www.biomedcentral.com/openaccess/archive/?page=features&issue=21>.

September 3 and November 17, NIH received 6,249 comments, the vast majority of which were supportive.

The discussion has now been advanced over a seven-year period by two NIH directors and has been extensively covered by the scientific press (e.g., *Science*, *Nature*, *New England Journal of Medicine*, *The Lancet*) and mainstream press (e.g., *NBC Nightly News*⁷, *USA Today*, *Wall Street Journal*, *Washington Post*).

A recent study by a group of journal publishers shows that approximately 85% of NIH-funded authors are aware of the NIH public access policy announced last spring.⁸ The National Library of Medicine's Board of Regents, which includes leading scientists, looked at the causes of a low rate of voluntary deposit by NIH researchers and concluded that lack of awareness is not the reason for non-compliance. They recommended that deposit should be mandatory.

The *Federal Research Public Access Act of 2006* will itself further the discussion of public access. Moreover, it gives federal agencies a full year after passage to develop public access policies – a period in which agency researchers will surely become further informed.

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MYTH #8: Public access will destroy the foundation of science.

REALITY: Public access will actually *strengthen* the foundation of science. It is one aspect of much larger adaptations by science to epochal changes wrought by the Internet. These changes will result in a more dynamic and faster moving scientific process that is better suited to address complex challenges.

In recent years, open sharing of scientific data has revolutionized life science research and helped establish new fields such as genomics and proteomics. For example, GenBank, the public database of DNA sequences operated by NIH, is accessible freely and without restrictions to all scientists in industry and academia. Commercial companies freely download and use it locally to develop new products in a secure environment. GenBank is credited with playing a critical role in the genomics revolution. Indeed, many of the leading advocates of open access are scientists who have seen first-hand the positive effect of GenBank on their work to better understand and treat diseases.

The rising global role and importance of the Internet has caused many industries to shift business practices to accommodate a changing world. Currently, a variety of business models exist within the publishing industry. Various experiments are ongoing to determine solutions that will enable

⁷ *NBC Nightly News* called the lack of public access to NIH-funded research a “Fleecing of America.” See <http://www.msnbc.msn.com/id/6660340>.

⁸ *NIH Author Postings: A study to assess understanding of, and compliance with, NIH Public Access Policy* (Report on behalf of the Publishing Research Consortium, 21 February 2006) at [http://www.publishingresearch.org.uk/prcweb/PRCWeb.nsf/0/9b725c3fbf92e2fe80257124005b656b/\\$FILE/PRC%20NIH%20Author%20Postings%20Survey%20Final%20\(February%202006\).pdf](http://www.publishingresearch.org.uk/prcweb/PRCWeb.nsf/0/9b725c3fbf92e2fe80257124005b656b/$FILE/PRC%20NIH%20Author%20Postings%20Survey%20Final%20(February%202006).pdf).

rapid access to publications while sustaining publisher revenue.

As long as journals add value to research and serve the needs of science, they will not be put out of business by public access. So long as scientists rely on the process of peer review – which is conducted by volunteer scientists themselves, not by publishers – peer review will endure.

(For a more detailed examination of this issue, see the ATA fact sheet, “Why ‘Public Access’ Is *Not* a Threat to Peer-reviewed Journals.”)

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MYTH #9: It’s enough if federal agencies just link to publisher Web sites to provide public access to research they’ve funded.

REALITY: While the Alliance for Taxpayer Access (ATA) commends scientific publishers that choose to offer free access to articles on their Web sites, linking is not a viable alternative to a public access policy. A linking proposal floated by a small group of publishers appears to be designed to ensure publishers remain the exclusive sources of publicly funded NIH research rather than to address the public interest. Recently, the National Institutes of Health studied the publisher-developed linking proposal, held discussions with the publishers, and ultimately, dismissed it as failing to address adequately the needs of either the government or taxpayers. The fact is, publishers cannot guarantee that they will continue to provide open access to the linked articles over the long term since they may someday change their business models, go out of business, or sell their journals. As an alternative to public access proposals, linking undermines the federal goal of maintaining permanent, searchable, interoperable digital archives of taxpayer-funded research. Moreover, given the compelling need for permanent digital archiving, linking will not save the government money. Linking does not obviate the relatively modest cost of transforming manuscripts into appropriate digital archiving formats and maintaining Web access.

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