



Alliance for Taxpayer Access

[www.taxpayeraccess.org](http://www.taxpayeraccess.org)

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A MYTH EXAMINED:

## Why “Public Access” Is Not a Threat to Peer-reviewed Journals

Some opponents of free public access to taxpayer-funded scientific research have claimed that federal public access policies will lead to the demise of journals – undermining peer review’s role in certifying research quality or resulting in worthy research going unpublished.

There is no credible evidence to substantiate this assertion. Indeed, the preponderance of evidence suggests that public access will leverage the federal investment in research without undermining longstanding peer-review processes.

The Alliance for Taxpayer Access has no less a stake than publishers in sustaining the screening of scientific research to insure its quality. The same is true of the National Institutes of Health (NIH), where a public access policy was implemented in 2005. We believe resistance to public access by some publishers is motivated less by concern about peer-review than by their desire to remain the *exclusive* sources of publicly funded research, with all the market power that entails.

The reality is that mandatory and timely public access to taxpayer-funded research does not fundamentally threaten the ability of journals to sustain themselves and the research certification process they orchestrate.

Consider the facts:

- **Online archive use is a supplement to journal readership, not a replacement for it.** Most scientists use article repositories such as NIH’s PubMed Central (<http://www.pubmedcentral.nih.gov/>) as a supplement to their journal reading, not as a replacement for it. Just as newspaper articles today are read in print, on their publishers’ Web sites, and in aggregations such as LexisNexis, potential readers of taxpayer-funded journal articles are well-served by having them accessible in many forms and contexts. Articles in PubMed Central offer their own uniquely valuable context. By being part of NIH’s interlinked search and retrieval system, articles are integrated with comprehensive links to the world’s biomedical journal literature, DNA and protein sequence databases, 3D protein structure and protein domain data, population study datasets, expression data, assemblies of complete genomes, and taxonomic information. This unique environment enhances users’ ability to easily follow a research thread and is part of what makes

PubMed Central a uniquely useful and important research tool. It compliments – but does not replace – the convenience of browsing a journal.

- **A variety of factors differentiate journals from open archives – not just access embargoes.** There has been much discussion of using embargoes as a means of protecting journals from potential subscription cancellations that might result from public availability of federal research in open archives. A key problem with embargoes is that, if they are long, the usefulness of the articles that taxpayers wish to share is vastly reduced – particularly in fast-cycling fields such as biomedicine. The goal of public access is not to make articles available *after* their usefulness is virtually exhausted, but rather *as soon as feasible* so that taxpayers benefit from their expanded use and application. Embargoes are just one of a number of ways in which journals are differentiated from open archives. Here are some examples:
  - The vast majority of articles in most journals do *not* report on US Government-funded research.<sup>1</sup> This gives libraries a reason to maintain their subscriptions to journals – to have access to the articles that will not be available in federal open archives.
  - Most journals publish a great deal more content than just peer-reviewed research articles. They also offer letters, editorials, opinion pieces, review articles, book reviews, news, and conference information. Public access policies do *not* ask authors to deposit any of this in federal open archives. These value-added features will be found only in journals, not in online archives unless the publisher so chooses. Research libraries, scientists, and others are not apt to cancel subscriptions to journals that successfully deliver these kinds of value-added services.
  - Federal open archives distribute the article version approved by a journal's peer-review process but not necessarily the version polished and revised by the journal's copy editors. This makes the journal the exclusive distributor of the final, official edition – forever, if that is its choice. Federal archives will only distribute the copy-edited, published version with the publisher's consent.
- **Long public-access embargoes are overly protective.** The dozens of publishers that have for several years been depositing the complete text of their journals in PubMed Central – many for immediate availability<sup>2</sup> – have reported no significant drop-off in subscriptions as a consequence of free availability of the text in PubMed Central. Data from the American Society for Cell Biology shows that when its flagship journal, *Molecular Biology of the Cell*, began offering free online access within two months after

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<sup>1</sup> An unpublished analysis of 2003 data by the DC Principles Group looked at biomedical journals with 100 or more NIH-funded articles. It showed that NIH-funded research comprised more than half of only 22 percent of the journals examined. Among those in the over 50-percent category, the range was 50-63 percent. That means that, for the most egregious example, a subscriber would give up access to 37 out of every 100 articles published if it cancelled its subscription and relied solely on the public-access archive.

<sup>2</sup> See list of journals that voluntarily deposit their content in PubMed Central at [http://www.pubmedcentral.nih.gov/front-page/fp.fcgi?cmd=full\\_view](http://www.pubmedcentral.nih.gov/front-page/fp.fcgi?cmd=full_view).

an issue has been published, author *submissions increased* by 14 percent and overall *subscriptions increased* by 16 percent. The increases seem to be a result of the heightened visibility, citation impact, and usage of the journal's articles.

- **Well-established online archives have not displaced journals.** In physics, nearly 100% of new articles are freely available from their creation in an open-access archive called arXiv (<http://www.arxiv.org/>), created more than a dozen years ago with US Department of Energy funding. Yet subscription-based physics journals have continued to thrive, demonstrating that open archiving is not a threat to journals. The American Physical Society and Institute of Physics Publishing are unable to identify any subscriptions lost as a result of arXiv in entire its existence.<sup>3</sup>
- **Publisher policies often acknowledge the need for open archiving.** Many commercial and nonprofit publishers today allow authors to immediately deposit their accepted articles in open archives under terms and conditions substantially similar to those proposed by public-access advocates. Elsevier, an Anglo-Dutch firm that is the world's largest publisher of scholarly journals (more than 1,800), already permits its authors to deposit their articles (the final version of the text, after both peer review and copy editing) in free online archives with no access delay at all. Many other journals are adopting similar policies, especially since Elsevier announced its policy in June 2004. For example, SAGE Publications adopted the same policy in October 2004. If open archiving harmed journal subscriber bases, then the number of subscription-based journals permitting it would not be increasing as it is today.
- **There is little risk of worthy research going un-reviewed and unpublished.** Questions have been raised about how highly specialized journals will fare if public access policies proliferate. The fact is, the current problems of small journal publishers can't be blamed on public access policies. Some niche journals admit they are already operating at a loss. Their predictable demise stems from bigger issues than public access. It's possible some of these journals solely or mainly publish research based on US Government funding and don't add any value to this besides peer review. If so, the need to adapt to changing conditions certainly should be obvious to any such journal long before a collapse.

But even *if* a journal were to close its doors, regardless of cause, there is no reason to believe this would result in worthy research going unpublished. Small, specialized niche journals have historically been created through a process called “twigging” – a publishing term for break-away journals that focus on a specialized subset of their parent journal's coverage. Twigging is a notorious process because it can produce journals so specialized that their entire subscription base is simply the small number of libraries at institutions where the relative handful of researchers in the field do their work. It is reasonable to believe that if a niche journal becomes unsustainable, its content will be re-absorbed by the larger, more sustainable journal – a sort of “reverse-twigging” process.

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<sup>3</sup> Key Perspectives. *Open access self-archiving: An author study* (May 2005), p. 3. Available at [http://www.keyperspectives.co.uk/openaccessarchive/reports/Open%20Access%20II%20\(author%20survey%20on%20self%20archiving\)%202005.pdf](http://www.keyperspectives.co.uk/openaccessarchive/reports/Open%20Access%20II%20(author%20survey%20on%20self%20archiving)%202005.pdf).