

**Michael A. Keller**

*Ida M. Green University Librarian  
and Director of Academic  
Information Resources*

*Cecil H. Green Library  
Stanford, California  
94305-6004*

*[Michael.Keller@stanford.edu](mailto:Michael.Keller@stanford.edu)  
telephone 650-723-5553  
fax 650-725-4902*

## *The Stanford University Libraries*

15 November 2004

Dr. Elias A. Zerhouni  
Director  
National Institutes of Health  
9000 Rockville Pike  
Bethesda, Maryland 20892

Re: NIH Notice on Enhanced Public Access to NIH Research Information  
NOT-OD-04-64 (September 3, 2004)  
Notice for Comment, 69 Fed. Reg. 56074 (September 17, 2004)

Dear Dr. Zerhouni:

This commentary on the referenced NIH proposal comes to you from my perspective as a university librarian, publisher of a university press, publisher of HighWire Press, and an informed private citizen. I have been continuously and closely engaged in aspects of scholarly publishing and particularly publishing in science, technology, and medicine (stm) for the past 20 years. During all of that time, I have been employed as a librarian in various university libraries (UC/Berkeley, Yale, and Stanford) with responsibilities for building and maintaining collections including materials for research and teaching in the sciences, engineering, and medicine.

Superficially, the NIH proposal to enhance public access to NIH research information might seem a laudable goal. However, the proposal, if implemented as currently composed, might have adverse effects on the progress of science, on clinical care, and on the very programs the NIH supports. Briefly, I will dwell on each of these potentially adverse effects. I will comment as well on the new roles the NIH appears to be undertaking by implication of the proposed policy.

The NIH Proposal would have adverse effects on the progress of science

By taking over by regulatory process a portion of the role of publishers, many of them not for profit scholarly societies, in stm fields, the NIH threatens the very continuation of those enterprises. Should the NIH siphon away readers and subscribers from the publications of not for profit American scholarly and professional societies, there would be damage to the complex web of activities that brings enormous amounts of information in the form of articles reporting on the results of scientific and clinical research, some of which is sponsored in part by the NIH. Should any of those American not for profit societies fail or weaken enough to jettison their publishing roles, the likely beneficiaries of such failure are the European for profit stm publishers and elements of the NIH's own bureaucracy. Such an outcome would have the dangerous and expensive prospect of one or perhaps both worst case scenarios:

1. the European for profit publishing industries would control more of the literature of stm and thus expand their monopolistic practices as well as charging more for access to the very stm literature the NIH proposal intends to affect;
2. the U.S. government would be taking over more responsibility for publishing *de novo* stm articles, thus further asserting control over research topics and methods; I note that presently there is a balance among the various reviewers and referees in the cascade of decisions affecting support for research in American not for profit laboratories.

Additionally, the NIH proposal flies in the face of considerable innovation and enormously improved public access already undertaken by numerous publishers receiving services from HighWire Press, a not for profit, enterprise of the Stanford University Libraries. Since 1997, many not for profit publishers associated with HighWire Press have engaged in two programs of enhancing access to stm literature. One of those programs, free back issues (FBI), now presents over 770,000 articles in the life sciences and medicine free along with numerous additional Internet features to any and all readers around the world. Another of those programs, toll free linking, allows readers of any article (whether free or controlled) in the suite of HighWire titles to read free the full text article of any cited article that happens as well to be available on-line through HighWire's services; toll free linking probably accounts for another 200,000 free articles thereby. Let me compare the HighWire Press (HW) enhanced public access program to the progress made by PubMed Central (PMC) in the past few years.

PMC has 160 publications, from 23 different publishers.

HW has 686 publications, from 130 different publishers (about 350 of them are life science publications, from 129 publishers)

70% of the publications in PMC are from one publisher: the for-profit, British-owned BioMed Central. That publisher accounts for only 3% of the articles in PMC however. Furthermore, BioMed Central has been indexed and included in Medline/PubMed before its articles achieved any particular impact factor and before any citation studies had been made, purely on the basis of a political decision

concerning the business model, that of Open Access/Author Pays. The very same criticism might be leveled at the inclusion of the publications of the Public Library of Science as well; they have been included in Medline and PubMed before they have earned inclusion, as all other publications have had to earn in the past, by demonstrated interest of other scientific and clinical researchers in their articles.

PMC has >325,000 free articles.

HW has >770,000 free articles.

PMC has 160 journals that provide free content.

HW has 214 journals that provide free content

PMC has 330,000 total articles.

HW has 2 million total articles, 1,343,000 full text articles.

92% of the articles in PMC are also in HW. So, other than the 3% of PMC articles coming from BioMed Central, only an additional 5% of PMC articles have been made more accessible than otherwise, and all of those are from publishers not associated with HighWire Press and its free back issues program.

50% of the publishers in PMC are also in HW

About 45% of the 200 most frequently cited STM journals are with HW;

About 7% of the 200 most frequently cited STM journals are in PMC.

5 of the top 6 general medical journals are with HW;

1 of the top 6 general medical journals is in PMC.

An easy conclusion, then, is that the not for profit publishers associated with HighWire Press acting independently from any government regulation have already done more for enhanced public access than the government's own efforts. Rather than mandating by regulatory process enhancement of a government program that appears to be at best a pale imitation of the efforts of responsible publishers and their private not for profit Internet service provider, HighWire Press, I suggest that the NIH and those responsible publishers work together on ways to expand by example public access while still making it possible for private American publishing enterprises, namely the American scholarly societies, to continue their good works. Publishers should be encouraged, but not required, to make their articles free after a period of time consistent with their need to receive income from subscriptions or other sources. Publishers should decide what the period of time of controlled access should be. More encouragement and support for programs that emulate the HighWire Press free back issues programs should be provided. Further, the proposals presented to you by Martin Frank of the American Physiological Society for the signatory organizations to the DC Principles on 28 October 2004 and reiterated in a comment to you on the NIH proposal of 16 November 2004 that

propose enhancements to the information indexed and presented by Medline and PubMed are preferable in substance and effect to the current NIH proposal.

To conclude this section of my comments, let me point out that the current NIH proposal by proposing to publish the final version of authors' manuscripts actually contributes needlessly to the perplexing of science by increasing the number and location of versions of the authors' articles. Rather than perplexing science and the readers of science, whether the American public or the scientific and clinical communities, the proposal presented to you by the signatory institutions to the DC Principles enhancing indexing and calling for linking from Medline/PubMed to the final, fully redacted and fact checked, *published* articles is preferable.

#### The NIH proposal might have adverse effects on clinical care

Beyond the perplexing of science referred to in the paragraph concluding the previous section, the current NIH proposal could result in incorrect dosages and other potentially damaging information to be purveyed to an unsuspecting public. Until articles are fully redacted, charts and figures perfected, and facts checked, the authors' manuscripts, the final version of the authors' manuscripts need to be regarded with some degree of caution. A simple warning to readers that the facts might not be exactly as represented or intended by the authors would almost certainly have to be inserted in the interests of public safety and in the interests of the NIH in avoiding liabilities. There are a few studies that show that self-diagnosis and self-medication by those perusing supposedly authoritative websites has had deleterious effects on citizen readers.

And what of the effects on the clinical community of having to chase down the fully redacted, fact checked published version of an article whose author's final manuscript version appears through the auspices of the NIH?

I do absolutely agree that presenting more information to the American public about clinical matters is a very good thing. And the best way to do that is through better indexing and presentation of information in Medline and PubMed with links to the published articles on the publishers' websites. And if those linked articles become freely accessible to the public after a reasonable period of time (reasonable from the perspective of the publishers whose services and enterprises we want to maintain and preserve in the interests of science and society), then all the better. Through your good offices and implementation of the proposal presented by the signatories of the DC Principles, more access can be achieved without the damage the current NIH proposal might cause.

#### The NIH Proposal might adversely affect its own programs

The NIH programs, whether in-house research or support of extra-mural research, has benefited from a completely unbiased and open system of access to information, review, and engagement. For the NIH to propose a publishing program in direct

competition to those private American enterprises is one thing. That the NIH program would by its own definitions of inclusion result in a limited and perhaps even fragmentary view of the literature of scientific and medical research is potentially damaging to the NIH itself. Far better is the prospect of enhancing the NIH's deserved reputation as one of the great, if not the greatest engine of research in the world by improving the depth and extent of indexing of the complete literature of scientific and medical research relevant to the interests and mission of the NIH: improving human health and health care. The proposal by the DC Principles people would accomplish the latter goal. The current NIH proposal would not.

Let me conclude with a few comments about the means by which the stm serials crisis has become even worse since the World Wide Web became available a little more than a decade ago. University and research libraries, responsible by their subscriptions for the majority of income for stm publishers, were lured into scribing to "big deals", bundles of journal titles that from the beginning were shown not to be heavily utilized by their end readers, students, faculty and researchers. Moreover, by failing to use their economic power, their money, to affect the practices of the large for profit European stm publishers by not signing the "big deal" multi-year contracts, they exacerbated the problem. Now, there is some light dawning on that front, but there is also an attempt, in the Open Access movement, to create another business model for scholarly publishing altogether. Maybe that movement will be successful and Open Access publishing will be viable, despite the dismal failure of similar attempts over the past decades. Maybe librarians, acting as surrogates and purchasing agents for communities of scholars, will change their economic decisions as free members of an open marketplace and thus change the marketplace behaviors of publishers. Whether or not the Open Access movement is successful should not be important to the U.S. government, including the NIH. And the NIH should not undertake publishing operations in competition to the existing marketplace. Further, it should not, perhaps without intending to do so, damage the marketplace conditions and possibilities for success of American not for profit scholarly societies acting as publishers and consequently improve the chances of business success of European for profit publishers. Rather, the NIH should be agnostic as to business models and more interested in the fundamental functioning of the scholarly communications "system," of which not for profit American scholarly societies are an important part. Interfering with that system for political or even commercial reasons does not seem to me to be an appropriate role for a U.S. government agency.

The NIH has every right to expect continued enhancement of public access to the reports of scientific and clinical medical research. And it has every right to get public credit for the good work it performs and supports in those arenas too. Indexing the stm literature for articles arising from research supported by the NIH and providing a logo on the first page of the articles seems appropriate and possible to accomplish prospectively and, perhaps with a little funding assistance, retrospectively too. Improving the depth and range of indexing of articles included in Medline and PubMed along with linking to the final published articles on the

publishers websites as per the DC Principles proposal to you are the right approaches.

Thank you for this opportunity to comment on the current NIH proposal and thank you for considering these comments.

Yours truly,

Michael A. Keller  
University Librarian  
Director of Academic Information Resources  
Publisher and Founder, HighWire Press  
Publisher, Stanford University Press  
Stanford University