

I attach below my response to this RFI.

Sincerely yours

Bernard Schutz

Response to RFI:

Public Access to Peer-Reviewed Scholarly Publications Resulting From Federally Funded Research

Responder:

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As a US Citizen who lives in Europe, as an active research scientist, and as the publisher of an online open access scientific journal (Living Reviews in Relativity), I am glad to have the opportunity to respond to the RFI on public access to scholarly publications. I work in Germany as a director of a research institute of the Max Planck Society, which has a pro-active policy to support Open Access; indeed I represented the Max Planck Society at the recent Berlin 9 Open Access conference in Bethesda, Maryland, November 8-10, 2011. So my perspective combines several points of view: a research performer, an organizer and evaluator of scientific research, and an open-access publisher. My response to the RFI is my personal point of view and does not necessarily represent the policy of the Max Planck Society.

I shall comment on the points as numbered in the request.

1. I believe that public access to peer-reviewed research offers clear economic benefits. These come from two sources: exposing information to more potential users, and creating opportunities for new information-related businesses. There are many potential users currently excluded from useful scholarly research: scholars working in one field who are unaware of related literature in another; small and medium enterprises who cannot afford a wide enough range of journal subscriptions to survey the literature relevant to their business areas; non-academic professionals (doctors, psychologists, lawyers, and others who typically work in small private practices) who could provide more accurate advice to clients if they could access the literature; educators at high schools and small colleges who could make good use of scholarly research and pass it on to their students. It is a fallacy to suppose that scholarly research will not be useful to such people. Much of the literature is not particularly technical, but instead reports surveys, describes experimental results, or provides reviews of research.

It should be noted that information useful for interdisciplinary activities, which are a major frontier for research today, is particularly difficult to access for the above groups because scholarly journals tend to be highly subject-specific; this means that one may have to access two or three times as many journals to learn about an interdisciplinary subject than if one works in a recognized discipline.

The second source of economic benefit is in new information-related businesses. These are business that will deal directly with the exposed information: providing searches, combining information intelligently from multiple sources, filtering out extraneous information. These services could be an additional source of business for existing publishers or they could stimulate the establishment of new enterprises.

To enable these benefits, agencies should insist that scholarly research be published, after suitable rigorous peer-review, with a license that permits the information to be re-used for any purpose, as long as its source is correctly attributed. Agencies should be prepared to pay publishers a fee to do this: an open access publication fee. But paying money should not be carte-blanche. Agencies should define carefully what they expect from publishers in return for the fee: that the license should permit full re-use (even commercial re-use); that high-quality peer-review is expected; that the fee covers the electronic version of the work but does not stop publishers from charging for a printed version; and especially that electronic access to the publication text and data are required. The last point is critical: the full economic benefits of search and discovery will not be realized unless the articles are held in archives that permit full-text electronic searches. Agencies should insist that publishers comply with certain metadata and interface standards in order to receive their fees.

A further policy issue is international cooperation. The scholarly literature, particularly in the sciences, is highly international. In many fields, perhaps in most, US federally funded research accounts for less than half of the published literature. Search tools and other information tools will be less likely to be developed and will be less effective if funding agencies of other nations do not adopt public access policies broadly similar to those of the US government. In fact, in many countries, particularly in Europe, research support agencies are at present more forward than those of the US in supporting public access, so there is certainly the basis for international cooperation. I urge, therefore, that as well as formulating public access policies for federally funded research, federal agencies be obliged to consult with counterparts in other countries to develop coordinated policies in different research fields.

2. Unrestricted public access to scholarly literature does not itself challenge intellectual property rights. If a scholar publishes in a copyright-protected journal today, he or she is still placing their work in the public domain, and the work will be seen by anyone who can buy a subscription. In fact, the scholars cede some of their intellectual property rights to the publisher, who usually asserts the copyright. Public access publishing at least reserves the copyright to the author.

Agencies should, however, not insist that the results of scholarly research (including data) should automatically be placed in the public domain immediately. A limited amount of time should be allowed for patenting (in the case of results that could lead to commercial activity) and further exploitation by the scholars before the results and data are exposed to the wider community. But, once it is published, it should be universally accessible.

3. I favor decentralized approaches to managing public access. I believe that agencies can, with suitable policies, ensure that access to published scholarship is universal. By insisting that journals make full text accessible via standardized search interfaces (see item 5 below), agencies will have ensured that a distributed and decentralized infrastructure can exist for preservation and distribution of information.

I believe that agencies do have a role to play in ensuring that there are archives of "last resort", which will hold information if, for example, a publisher goes out of business. These should be publicly funded. But they do not need to be the places where tools are developed and exploitation of the information happens.

The crucial deciding factor in how much intervention in archiving is required from the US government is the degree of international cooperation that exists in the setting of standards for public access to literature. I have referred to this in point (1) above. If international coordination is effective, then I believe that there will be enough commercial incentives for businesses to arise that provide search and discovery. If the US is alone in requiring public access to federally funded research, then US agencies might well have to be more pro-active in providing search tools, since federally funded research will only represent a fraction of the world literature in many important subjects.

4. No comment.

5. This is one of the most important areas in which government agencies should be active, in my view. Metadata standards are essential if information is to be machine-searchable, which as I have argued above is essential to getting the full economic benefit of public access. Current metadata sets, such as the Dublin Core, are too thin. I believe that the federal government should support an interdisciplinary and international standards committee that should make recommendations about what metadata are required to meet specific policy aims. This is an area where much has already been done, but what is now needed is for federal agencies to incorporate metadata standards into their requirements when they pay public-access publication fees, as I suggested in (1) above.

A further key standard is the electronic interface that an archive offers for a search machine. It is crucial that a minimum standard be defined, what in computer jargon is called an API: an application-programming interface. This is basically a standardized set of queries that a search machine can put and get answered: asking for author, abstract, full text, references, etc. Without such standardization, each publisher and archive could offer search and discovery in a different way, and that would greatly inhibit the development of tools. Just as telephone companies, internet providers, and website providers all conform to agreed communication standards, so should archives. The federal government should be pro-active here; as with metadata, so also with query APIs, the government should set up an international committee to agree an API, and then agencies should insist that publishers conform to it in order to be paid a publication fee.

6. If federal agencies adopt strong policies requiring that scholarly results be published in publicly accessible literature, if they are willing to support the payment of publication fees, and if these policies are sufficiently international, then the federal government will not need to invest in much archive infrastructure, search tool development, or other information exploitation initiatives, because private-sector businesses will do the job. Moreover, the payment of publication fees need not be much of an extra cost to federal agencies, since they should replace subscription fees, and much of the money used for subscriptions paid by universities comes from federally-provided overheads (the indirect cost element of research grants). In my view this is preferable to incurring costs in maintaining archives and providing and maintaining search activities.

I believe that federal agencies should encourage experiments now with public access in specific subject fields in order to assess the costs to the agencies of a large-scale switch from subscriptions to publication fees.

7. I see no reason to exclude book chapters and conference proceedings. These are often valuable parts of the literature that have exceptionally low circulation, so that making them available would be very useful. But they should meet standards of peer-review.

The principal problem, it seems to me, is that books and proceedings are typically circulated in print, not electronically. Federal agencies should encourage publishers to make electronic versions publicly accessible for free, while allowing them to charge extra for printed copies.

8. I believe in zero embargo, which is practical only if agencies are willing to support the payment of publication fees to journals. This clearly maximizes the benefits to society, including the speed with which commercial benefits arise. In many fields, information becomes out of date after a relatively short time, and therefore setting

embargo periods that are adapted to different fields becomes rather arbitrary. A simple policy supporting full public access from day one removes this complication.

My only remaining comment is to reinforce my remarks above on international cooperation. It is of course important for there to be a clear federal policy for agencies to follow. But I would urge that this policy include a duty to work toward developing international standards that are consistent with the policies of the federal government. The scholarly literature is fully international in origin, particularly in key sciences. Moreover, the publishing houses are also highly international, and they market the same products (their journals) to customers on all continents. The benefits of public access will be much greater, and the cost burden to the federal government smaller, if national agencies of the different countries develop compatible policies, so that the entire international literature can be opened to access by the public.

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