



AMERICAN UNIVERSITY

W A S H I N G T O N , D C

Jorge L. Contreras
202-274-4124
contreras@wcl.american.edu

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National Science and Technology Council (NSTC)
Office of Science and Technology Policy (OSTP)
Attention: Ted Wackler, Deputy Chief of Staff
Via email: publicaccess@ostp.gov

Re: OSTP Request for Information: Public Access to Peer-Reviewed Scholarly Publications
Resulting from Federally Funded Research (76 Fed. Reg. No. 214 at 68,518 (Nov. 4, 2011))

Dear Mr. Wackler:

I appreciate the opportunity to share comments with OSTP regarding public access to digital data resulting from federally-funded scientific research. I am a professor of law at American University, prior to which I spent seventeen years as a practicing attorney representing major research institutions, R&D consortia and private enterprises engaged in technical and scientific work. I have recently served as a member of the National Advisory Council on Human Genome Research and currently serve as Co-Chair of the National Conference of Lawyers and Scientists and Co-Chair of the American Bar Association Section of Science & Technology Law's Committee on Technical Standardization. My current research focuses on the production and dissemination of scientific and technical information.

Responses to specific items of the OSTP RFI are set forth below and represent my own views, and not those of American University, Washington College of Law, or any of the other organizations mentioned above.

(2) What specific steps can be taken to protect the intellectual property interests of publishers, scientists, Federal agencies, and other stakeholders involved with the publication and dissemination of peer-reviewed scholarly publications resulting from federally funded scientific research?

Public access to scholarly publications resulting from federally-funded research has several potential benefits. These include enabling scientists to reproduce and validate the results of their peers, improving scientific education, and accelerating the overall progress of scientific discovery. Peer review, editing and publication, however, are not without cost, and much has been written regarding the financial needs of value-added intermediaries such as scientific publishers and database managers. Approaching the question of appropriate levels of intellectual

property protection for scholarly publication thus requires a balancing of interests of the relevant stakeholder groups: publishers, funders, libraries, universities, scientists and the public.

In previous work,¹ I have analyzed the interactions of these stakeholder groups in a number of settings and have observed the negotiations that have led to the establishment of embargo or “latency” periods governing the release of scholarly publications. During the latency period, a publisher retains the exclusive right to offer access to the published work, but thereafter the work becomes available for free and open access. Interestingly, latency periods are quite similar across multiple negotiation settings that have been observed. Thus, (i) universities and publishers have negotiated limited exclusivity periods of *six to twelve months*, after which university researchers may release their work to the public, (ii) membership organizations that publish scientific journals such as the *New England Journal of Medicine*, in response to member pressures, voluntarily permit open access release of articles following an exclusivity period of up to *six months*, (iii) NIH has mandated that all publications arising from NIH-funded research be released to the PubMed Central database *one year* after publication, and (iv) legislation that was previously introduced in Congress would have extended the NIH mandate to all federal agencies and reduce the holding period to *six months*.

In each of these scenarios, scientific publishing is conducted in its traditional form and the publisher enjoys a limited-duration period of exclusivity. Following this period of exclusivity, release of the published work via open access channels is authorized. It is significant that the policies illustrated above were developed through a wide range of processes, from unilateral adoption (in the case of membership organizations), to bilateral negotiation (in the case of publisher-university embargos) to executive agency action (in the case of the NIH policy) to legislative action (in the case of proposed legislation). It is also significant that the imposition of a latency period has seemingly been accepted by publishers, scientists, government and research institutions as a suitable vehicle for addressing the differing concerns and objectives of these diverse stakeholder groups. Though positions regarding the desired length of holding or embargo periods still differ, it appears that the scientific publishing community is converging on a latency period in the range of six to twelve months as an appropriate compromise, or a position of equilibrium. That is, at the latency equilibrium point, the various stakeholder groups negotiating such policies (i.e., publishers, libraries, scientists, government and research institutions) are each willing, albeit reluctantly at times, to allow the public release of published literature. A shorter period would not be acceptable to publishers as it would not adequately allow them to recoup their costs of review, editing, publication and marketing, and a longer period would not be acceptable to funders, libraries, scientists and public advocates, who have an interest in making such data freely available at the earliest possible time. Thus, as a result of multilateral compromise, an equilibrium latency period acceptable to all stakeholder groups may emerge.²

¹ See Jorge L. Contreras, *Prepublication Data Release, Latency, and Genome Commons*, 329 *SCIENCE* 393 (2010), and *Data Sharing, Latency Variables and Science Commons*, 25 *BERKELEY TECH. L.J.* 1601 (2010).

² We have seen the development of similar latency periods and equilibria in the area of genomic data release. See Jorge L. Contreras, *Response to OSTP Request for Information: Public Access to Digital Data Resulting from Federally Funded Scientific Research*, Jan. 12, 2012.

In my view, these data suggest that “market” forces (i.e., the negotiation and interplay of interested stakeholder groups) can arrive at protective periods that are substantially shorter than default intellectual property rules (nearly 100 years in the case of copyright).³ Accordingly, I believe that the negotiated latency equilibrium that has emerged in the field of scientific publishing provides strong evidence that allocating exclusive publication rights to publishers for such a period adequately compensates them for the value that they provide, and that protection in excess of such levels gives undue weight to their intellectual property interest. I would encourage OSTP to consider this analysis in its future policy development activity.

(6) How can Federal agencies that fund science maximize the benefit of public access policies to U.S. taxpayers, and their investment in the peer-reviewed literature, while minimizing burden and costs for stakeholders, including awardee institutions, scientists, publishers, Federal agencies, and libraries?

One of the seldom-discussed puzzles of the “open access” debate relates to the national character of research funding. Proponents of open access to federally-funded scholarly literature generally advocate for *global* open access. That is, literature that is considered “open access” should be available to any reader throughout the world without charge. This model reflects the global, open nature of the Internet (national censorship notwithstanding), and has generally been adopted by open access publications and resources across the board, including NIH’s PubMed Central. There are many valid arguments, both ideological and instrumentalist, for adopting such a global approach. But the argument that U.S. taxpayer-funded research should be accessible to the taxpayers does *not* support a global open access approach. Rather, this argument, which has been made consistently over the past decade in the debate over the NIH open access policy and other pending open access legislation, would tend to favor a system whereby such research publications were made accessible only to *U.S.* taxpayers (institutional or individual), but not to foreign ones. Such a nationally-based open access system (which I term “National OA”) would, in economic terms, better allocate the benefit of U.S. tax dollars to U.S. taxpayers, and would eliminate economic free riding by non-U.S. data consumers.

At first blush, such a proposal might seem to fly in the face of the spirit of the open access movement and be viewed as impractical to implement, given the borderless nature of the Internet. The second objection is more easily dealt with than the first. To the extent that scholarly publications are deposited into a federally-managed database such as PubMed Central, the ability to grant access to such a database would reside entirely with the database manager. It would not be technically difficult to require institutions to register for access to the National OA database, to establish a set of differentiated rates for access, and to set the rate for verified U.S.-based persons and institutions at zero. This system would enable the negotiation of bilateral national

³ The fact that these observed latency equilibrium periods are so much shorter than default intellectual property periods also suggests that the default periods may, in some cases, be unnecessarily lengthy (a point that has been made by many others).

agreements whereby, for example, other nations producing meaningful scientific output could obtain reduced or waived access fees for their institutions and researchers in exchange for access to their own nationally-funded research publications.⁴ Similarly, access rates for institutions and researchers from developing countries could be waived or substantially reduced as a form of humanitarian aid.

Nevertheless, the imposition of national barriers to open access publications may be viewed as contradictory, if not inimical, to the public spirit of the open access movement, which seeks to make scientific knowledge as broadly available as possible for the greatest advancement of human knowledge, learning and progress. However, the National OA system described above would not prevent private-sector open access initiatives from continuing to offer global access to the literature. Thus, the broad range of so-called “green” open access self-archiving initiatives and the burgeoning number of “gold” open access publications⁵ could continue to make their content available to readers without charge on a global basis.

Most importantly, the proceeds from a National OA system could be used to support other important open access needs. One of these might be the establishment of a fund to support publication by U.S. researchers in gold OA journals (i.e., those utilizing an “author pays” model). If author fees were significantly mitigated through such a fund, it is possible that more authors would be attracted to gold OA journals, thus expanding the dissemination of knowledge globally. Another potential use of such fund could be to support publication in gold OA journals by authors from developing countries.⁶ Finally, such funds could be used to support the database infrastructure and curation requirements that are necessary to maintain a vast collection of resources such as PubMed Central.

(8) What is the appropriate embargo period after publication before the public is granted free access to the full content of peer-reviewed scholarly publications resulting from federally funded research?

Please refer to discussion of Question (2) above.

⁴ In any case, one would hope that the fees established even for non-U.S. access to these resources would be far lower than the commercial subscription rates that occasioned the so-called “serials crisis” in the 1990s and which continue to shut-out poorly-funded institutions from important scientific literature both in the developing and industrialized world.

⁵ There were approximately 4800 such journals according to one 2009 study. Mikael Laaski, et al., “The Development of Open Access Journal Publishing from 1993 to 2009”, *PLoS ONE* 6(6) (June 2011). Significantly higher figures for OA journals are reflected in the online Directory of Open Access Journals (www.doaj.org), which, as of this writing, lists more than 7,300 OA journals in 117 countries.

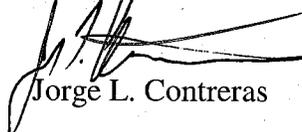
⁶ For a discussion of the economic challenges faced by researchers in the developing world, even with respect to OA journal publication, see Jorge L. Contreras, *Open Access Scientific Publishing and the Developing World* (forthcoming, ST ANTONY'S REVIEW OF INTERNATIONAL AFFAIRS (2012)).

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Thank you again for the opportunity to offer these comments in response to your inquiries. Please do not hesitate to let me know if there is any additional information that I can provide in support of these matters.

Respectfully yours,

A handwritten signature in black ink, appearing to read 'J. Contreras', is written over the typed name.

Jorge L. Contreras