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To

Office of Science and Technology Policy
Executive Office of the President
725 17th Street Room 5228
Washington, DC 2050

From

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Re

Response to White House RFI on Open-Access

Government-funded research should be publicly accessible, for free and without restrictions. Public access to publicly-funded research is limited. If an article is not open-access, many publishers charge between \$15 and \$50 for access to a single article (a few charge even more). In other words, taxpayers would have to pay to read the results of research they already funded through their taxes. But that is not the only reason that the results of publicly-funded research should be available for free: open-access policies can be used to encourage collaboration and increase academic communication.

Although the Association of American Publishers argue that requiring open-access publishing would deny them fair compensation, for-profit science, technology, and medicine publishers already enjoy massive profits at little cost. *The Economist* notes that in 2010 Elsevier—the biggest publisher—made "£724m (\$1.1 billion) on revenues of £2 billion—an operating-profit margin of 36%." In a chapter of her thesis on scholarly communication, Heather Morrison notes that high profits and low operating costs are common in the industry:

Anon. 2011. "Academic publishing: Of goats and headaches." *The Economist*.
<http://www.economist.com/node/18744177/>.

Morrison, Heather, "Scholarly Communication in Crisis" <http://pages.cmns.sfu.ca/heather-morrison/chapter-two-scholarly-communication-in-crisis/>

Springer's Science + Business Media reported a return on sales (operating profit) of 33.9% or € 294 million on revenue of € 866 million, an increase of 4% over the profit of the previous year. In the first quarter of 2012, John Wiley &

Sons (2011) reported profit of \$106 million for their scientific, medical, technical and scholarly division on revenue of \$253 million, a profit rate of 42%. This represents an increase in the profit rate of 13% over the previous year. The operating profit rate for the academic division of Informa.plc (2011, p. 4) for the first half of 2011 was 32.4%, or £47 million on revenue of £145 million, an increase of 3.3% over the profit of the previous year.

Eisen, Michael. 2012. "Research Bought, Then Paid For." *The New York Times*, January 10. <http://www.nytimes.com/2012/01/11/opinion/research-bought-then-paid-for.html>.

As others have written (including Michael B. Eisen, the founder of the Public Library of Science), academic publishers enjoy very low overhead costs for the journals they publish. They do not need to fund research, neither do they fund the researchers who review articles (reviewers volunteer their time as part of their employment).

Slothuus, Rune, and Claes H De Vreese. 2010. "Political Parties, Motivated Reasoning, and Issue Framing Effects." *The Journal of Politics* 72 (03): 630-645. doi:10.1017/S002238161000006X. http://www.journals.cambridge.org/abstract_S002238161000006X.

Government policy does not just set rules for what is to be done, it sets policies that people believe are right and wrong. When policy supports the status quo, people believe that the status quo is right and change is wrong, even when all evidence suggests otherwise. When we set policies that discourage sharing, people are less likely to share. But when policies are made to encourage sharing and open-access publishing, it changes the mindset. People become more willing to share their knowledge, research, and communicate with others. Policy does not merely set what people can and cannot do: It shapes the collective consciousness. It shapes how we think about ourselves and act towards each other.

In the last few years academics in every field of study have been discussing new ways to publish research including reforms to the peer-review process and entirely new methods for review and publishing. This is an area where government can not just set policy, but promote innovations in academic communication. Along with requiring open-access publishing, government can set policies to foster intra-laboratory collaboration by requiring that publicly-funded research is not only published open-access (many for-profit journals now also publish some articles as open-access), but

also require that raw data from publicly-funded research also be published online (e.g. through open APIs) so others may analyze and contribute to their data in new and novel ways.

Today, many researchers are insular and secretive, protective of their domain, funding, and laboratories. Many refusing to share their discoveries until they are published. This hinders progress and goes completely against the role of government in society. Many of the best discoveries and innovations occur not in a single laboratory, but in the intersections of disciplines which does not happen easily in closed academic environments: Medical imaging leading to advances in astrophysics. Social psychology and pedagogy. Network theory and public medicine. Further, scientists unaffiliated with any institutions or businesses can still access and contribute to public research.

When we set policies to encourage sharing, researchers will be more willing to collaborate. Some may resent the intrusion, but most will turn around and those who do not will eventually retire. Many of the new generation of scientists are already trying to do new work in this paradigm: through projects just as openthesis.org, blogging and other social media. We need to support what they are doing in policy, it is the future of academic scholarship. Promoting an open-access policy for government-funded research is not just about the giving taxpayers access to information that we paid for, it is about open collaboration and encouraging new forms of communication in our community.