Office of Science and Technology Policy – RFI
University of Pennsylvania Libraries Response
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Access to and preservation of the scholarly record is fundamental to the scientific enterprise in the United States. Nonetheless, striking a balance between that ideal and the practicality of administering a complex system with many stakeholders is a difficult problem. As the America COMPETES Act states, the government needs to "invest in innovation through research and development, and to improve the competitiveness of the United States." The University of Pennsylvania Libraries grapples with this challenge every day, and we feel that there are many potential ways federal agencies can help to solve this difficult issue.

Our peer institutions have been able to accomplish much with the greater availability of content that open access allows. Some universities such as Rice University (http://cnx.org/) and the University of Michigan (http://www.lib.umich.edu/spo/reprints.html) have experimented with ways of providing books and articles for free and charging for value-added services such as reprints. No doubt commercial publishers will soon follow the same model. Yet, to do so will require them to relinquish intellectual property rights. Traditionally, scholarly publishers have helped to sustain scientific research by obtaining scholars' copyrights over their articles. In an era when it was very difficult to reproduce information (other than by copy machine), doing this made sense, but in the internet age, that model is breaking down. What is required is a shift in thinking about how scholarly publishing works. Academic publishers in fact have been shifting their thinking for years. ProQuest Information and Learning (http://www.proquest.com/en-US/) provides access to databases of content of public domain and other materials for which they do not own copyright (including dissertations, newspapers, and early printed books) and EBSCO (http://www.ebsco.com/) indexes the work of other publishers so that it can be searched in ways that Google and other less specialized search engines cannot provide. In other words, some publishers are making money utilizing content which is already freely available.

How can federal agencies help to facilitate this shift in thinking about scholarly publishing? In some ways, they already are. The National Endowment for the Humanities (NEH) provides "digital humanities" grants to fund new kinds of scholarship (http://www.neh.gov/ODH/GrantOpportunities/tabid/57/Default.aspx), and, perhaps more importantly, the National Science Foundation (NSF) has an entire office of cyberinfrastructure (http://www.nsf.gov/dir/index.jsp?org=OCI) engaging with the larger issues of scientific publishing. In other countries agencies of the central government like the Joint Information Systems Committee (JISC) in the UK (http://www.jisc.ac.uk/) and the Canadian Research Knowledge Network (CRKN, http://www.crkn.ca/home) have created fairly broad collaborative approaches to scholarly publishing issues. In the United States, there has been a more decentralized, non-government approach. Groups like the Association for Research Libraries (ARL -http://www.arl.org/sc/) and Ithaka (http://www.ithaka.org/) have helped to develop smaller scale projects like SCOAP3 (http://scoap3.org/) for Physics and JSTOR (http://www.jstor.org) for humanities and social sciences.

In addition to continuing the work that many agencies have already begun, the United States has the opportunity to create the best of both worlds: a hybrid of decentralized entrepreneurial initiatives like ARL and Ithaka, and more centralized government approaches such as the JISC and CRKN. If the various federal funding agencies (like NSF, NIH, NEH, etc.) were to form a joint task force on publishing, comprise up of multiple stakeholders, such a group could investigate the current publishing efforts in the US, recommend new models and new ways for collaboration, and, perhaps most importantly, recommend strategies for interoperability. There are many standards for creating interoperable metadata, but the issue goes beyond metadata. Electronic technology allows new kinds of scholarship and requires new methods for making it available and sustainable. In all, what the United States needs in order to compete with countries like the UK and Canada is more collaboration between stakeholders in addition to the current *ad-hoc*, decentralized approach. Open Access mandates such as the NIH are an important step, yet they also encourage many uncoordinated approaches to a similar problem. The federal government could

provide a great service by coordinating the competing parties in a way that no one else can, and it already has several models both within the US and outside that it can use to create such a dialogue.