

Open Access Mandates Create Innovative Opportunities for Publishers

By Paula Gantz

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The impact of open access on issues such as research funding and communities, author tools and metrics, and peer review itself was the major theme of the 2013 Spring [International Association of Scientific Technical and Medical Publishers \(STM\)](#) Conference held in Washington last week.

To set the stage, the keynote speaker, Graham Taylor of The Long Game, provided a detailed analysis of the United Kingdom's Finch Group and its "[Report of the Working Group on Expanding Access to Published Research Findings](#)," issued in June 2012. Taylor gave a short history, mentioning that the [Research Councils UK \(RCUK\)](#) has an annual budget of £2.7 billion; [Wellcome Trust](#) received £700 million of that budget, which makes its opinion extremely important as far as UK policy is formulated.

The task of the working group, chaired by [Dame Janet Finch](#), was to expand accessibility, sustainability and excellence in UK research, while avoiding potential damage to quality and to publishers and professional societies. Taylor pointed out that while Finch believed that the subscription model is effective in providing access to scholarly content, it is not effective enough. Members of the group were looking to accelerate the transition to open access, but in an orderly fashion.

The Finch working group was comprised of 14 stakeholders; four were publishers ([Royal Geographical Society](#), [Springer](#), [Wiley-Blackwell](#) and [IoP Publishing](#)). While the group issued ten recommendations and 18 actions, the main recommendation was a policy encouraging open access, but in a mixed economy.

Gold open access is the preferred model, according to Taylor, because it affords access to content immediately at publication, but it needs to be underwritten. "(Publication) embargo periods should be short, if APC's (article publication fees) are available. If they are not available, there can be a longer embargo." Taylor explained.

According to him, there are two types of Green open access: 6/12 Green vs. 12/24 Green, signifying the length of the embargo period in months. These models are acceptable, according to the Finch Group, if research funds are not available to pay for Gold open access. Content published as Gold open access must be licensed as [CC-BY](#). The Green license can be [CC-BY-NC](#).

RCUK is still unclear about its position on Green open access and embargo requirements, according to Taylor, but Wellcome Trust is staunchly in the Gold camp and now insisting on CC-BY licenses. "They have threatened sanctions on researchers who do not adhere," Taylor stated. The [National Institutes of Health \(NIH\)](#) in the U.S. seems currently to be recommending Green open access.

Representatives of both the [European Union](#) and the [National Science Foundation](#) also elucidated their governmental positions.

Jose Cotta of the European Commission introduced [Horizon 2020](#) as an €80 billion research and innovation funding program (2014-2020). "The focus is on European societal challenges and how to simplified access to research," he explained. "This has implications for both technological and non-technological innovation."

The policy objective is to optimize the impact of publicly-funded scientific research at the European level, but also at the member-state level. Economic growth, better and more efficient science and improved transparency are also goals. "Open access is a way to get to this," he said. "Open access to scientific publications and open access to research data, both linked to articles and as raw data." But he stressed that OA cannot interfere with patenting.

Cotta explained that the EU recommended to member-states that they proceed with open access. "In the UK, Gold is the religion. But in other states, they have Green OA. There are also national repositories. The EU is not dictating although the costs of publication will be absorbed by Horizon 2020. The allowed embargos are 6/12 months."

According to Cotta, publishers remain key partners in improving and optimizing the scientific information system. "But publishers should develop new business models. Also, publishers should create other and new services."

Amy Friedlander of the National Science Foundation talked about the Feb. 22, 2013 [Office of Science and Technology Policy \(OSTP\)](#) memo. "This is the point of departure," she warned. "Publishers are important to the scholarly communication system and to the research enterprise, but we are having to balance competing claims at a time of constrained resources."

"Flat is the new future," she stressed. The FY 2013 budget contained a modest increase in spending, but it did not survive sequester. Our goal is to protect core programs, enable innovation, sustain graduate students and young faculty."

The main themes for the NSF are to build an innovative economy, prepare today's students and improve program effectiveness and efficiency. "Innovate, Educate and Evaluate," she said.

The OSTP memo says that agencies will develop plans to increase public access to scientific publications and data in digital format within six months," she said. The [National Academies](#) Public Meetings on Publications and Digital Scientific Data will be held May 14-15 2013 in Washington so that public input can be recorded.

To bring a researcher perspective, three early career researchers talked about their view of the publishing process. For them, the most important aspect was being recognized and published in journals of sufficient prestige to insure future funding for their endeavors.

Amber Stuver, a young physicist at the [California Institute of Technology](#), has already published 70 journal articles on gravitational waves, however, she is one of 800 authors on each of those papers. The articles are composed by the group and pre-peer reviewed by each of the authors using data which must also be authenticated by each author. "By the time we submit the article, we are confident that we won't have a problem with peer review," she said. Stuver uses her [ORCID](#) number to insure that her name stands out and is recognized. Her biggest concern is getting credit for her work "so anything that increases access to her papers while maintaining integrity is more than welcome.

"In theory, open access is a great idea," she explained, "but there is concern among young researchers with meager funds for publishing that they will not be able to publish their work."

Filipa Godoy-Vitorino from the Inter [American University of Puerto Rico](#) sequences genes from microbes. She has only published eight articles, and commented that it was really hard for young scientists to get grants. Her answer to this problem is to collaborate with other labs and institutions. She also uses this method to access content at other institutions, as her institution has limited holdings.

Antwan Jones, a sociologist at [George Washington University](#), studies population health. He limits his research to metropolitan areas and uses Google Scholar to locate content. He also uses his library's website and sociological abstracts.

Jones sits on his university's library committee and pointed out that if content is not used, then the university "gets rid of it." He also mentioned that student researchers have lower levels of access than faculty at GWU.

Open Access and targeted collaborations to get journal articles help Jones with his research. "Technology is increasingly important for collaboration outside the university. "I am the only one working at GW on these subject areas, but I have "pre-reviewers" among my peers elsewhere, Jones commented.

Taylor explained that a department directive discouraged authoring books. Top-tier journals in sociology were the preferred publishing vehicle. Open access was not seen as falling into this category, he pointed out, and there is no funding for high publishing costs.

H. Frederick Dylla, CEO of the [American Institute of Physics](#), explained next that publishers have an important role in providing free public access to publicly funded research. "Everyone -- funders, researchers, publishers -- have a goal to work together. Publishers have a very important role to put forth proposals in front of all the stakeholders to provide for wide access, without disrupting the scholarly publishing process."

Dylla introduced two efforts to facilitate access to scholarly research: FundRef and ORCID.

Sharon M. Jordan of [FundRef](#) "pre-released" FundRef, which has created a uniform taxonomy for funders. It captures a funder's name and assigns it a unique identifier which will appear as metadata on published research. It will also provide the grant number associated with the research. CrossRef will run the funder registry so that researchers, funders and other interested parties will be able to evaluate how effectively grant monies are being spent.

FundRef will be officially launched late in May, Jordan announced. Publishers are encouraged to plan for implementation with manuscript processing systems. There is no fee to funders or to publishers unless they want to use the FundRef crossmark.

Howard Ratner of Nature Publishing Group, reviewed the [ORCID](#) project's mandate as providing a 16-digit number compatible with ISNI to all researchers. This will identify them and disambiguate them, he explained. "This is not just science and not just U.S. It is for the whole scholarly ecosystem." The researcher does not pay. Membership dues pay for it. Researchers must create or claim an ORCID account, and researchers have ultimate control of their ORCID ID. As of April 26, there were 125,666 registered users, with 40+ subscriber and member organizations. Each registered author/researcher receives a web page, providing a space to record research contributions: papers, grants and other items.

Several speakers spoke briefly about products designed to assist in research, peer review, scientific collaboration, alternative metrics, social media and author payments. Included were: [ImpactStory](#), [Peerage of Science](#), [Rubrig](#), [Plum Analytics](#) and [EBSCO Information Services](#).

In another example of innovative approaches to research collaboration, Kathleen Fitzpatrick of the [Modern Language Association](#) spoke about [MLA Commons](#), a community of researchers in the humanities who come together to discuss ideas, research and academic output in an open, native-digital environment. It was launched in January and is still in beta. It is entirely open source and based on the [CUNY Academic Commons](#).

The genesis of this idea was in Fitzpatrick's own doctoral thesis, which she posted on-line prior to print publication. This led to an early attempt, at least in the humanities, for post-publication peer review. Called [Media Commons](#), it is a digital scholarly network which provides peer-to-peer review that gives a new dimension to the traditional peer review process.

"Peer review now changes from regulation to communication. It is facilitating more exchange among a group of peers. We no longer have gatekeepers, just filters," Fitzpatrick stressed. "Conversations on the web will foster new collaborations that will require new attribution models."

Publishers will need to focus on new things like services instead of the final product, Fitzpatrick pointed out. "Universities need to rethink the connections between the library, the press and the academy and also the interface between the institution and the surrounding community."

Another aspect of publisher relationships, new interfaces with the end user, was introduced by [Simon Inger](#), a consultant. He summarized the findings of a large reader/user survey focused on discoverability, search engine and device preference. Specialist bibliographic data is the preferred starting point for searches, according to the 19,000 respondents. GoogleScholar is second, but library and journal homepages are also used, especially in education research and the humanities. In chemistry, TOC alerts function best for initiating searches, Inger said. In Africa there is a preference for mobile devices.

Julie Kane of [Sweet Briar College](#), an 800-woman liberal arts college in Virginia, spoke about the change in research usage fostered by the integration of iPads into all studies. Library access has been retooled to focus on digital retrieval of journal content on the iPad through the [BrowZine](#) app. Kane suggested that publishers not to view this as competition, but just as another mode of access.

Steven Bachrach, a chemistry professor at [Trinity University](#) in Texas, urged publishers to make data available. "It allows for better peer reviews, for reproduction of experiments and for comparisons of similar experiments. It also aids in collaborations," Bachrach said.

"We have much better technology today to share data. All data is fundamentally digital. We have better storage and ability to transmit," he said. However there are impediments toward sharing data. These include non-standard file formats, multiple file formats, no standard deposition locations, and no incentives for authors, although the NSF is now beginning to mandate sharing.

"There is a real need for software with interactive tools to handle data," Bachrach remarked. "Publishers need to work with societies and librarians to create data archives and to encourage editors to demand data submission. Data is inherently not copyrightable, but attribution is crucial."

Angela Carreno, of [New York University Libraries](#), outlined her digital platform and preservation needs. She stressed that it was important to improve discoverability at the front end in order to compete with Wikipedia, and students' use of it.

A final session on social media and content as a commodity featured representations by the [Copyright Clearance Center](#), speaking about new business models for content usage; [SIPX](#), speaking on managing copyright especially in digital learning environments; [ReadCube](#), speaking about different purchase and usage options; [Sage Publications](#), speaking about user group communities; and [EPOCRATES](#), speaking about the curation of medical information for handheld devices.