

◆ Emerging Technologies in Publishing

Moderator:

Patty Baskin

Neurology

Rochester, Minnesota

Speakers:

Philip Davis

Cornell University

Ithaca, New York

Julie Morrison

HighWire Press

Palo Alto, California

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American Psychological Association

Washington, DC

Philip Davis, a doctoral student in the Department of Communication at Cornell, spoke about how our view of new technologies is influenced by media framing and how communication media have framed open access in particular. How a new technology is framed essentially sets the agenda for how it is valued.

The phrase *open access* has been used in many contexts, but open access to the research literature has only recently become a focus of public attention. Those who advocate open access to research typically use the argument that taxpayers deserve access to the results of research they have paid for. Counterarguments are more subtle and difficult to elucidate; they include the potential detrimental effect on the quality of published articles and the threat to the sustainability of publishers' business model. Proponents of open access have claimed the moral high ground, couching their cause in terms of the injus-

tice of having to pay twice to see the results of important clinical trials (through tax dollars and then through download or subscription fees) and creating an "us versus them" dichotomy (cash-strapped libraries versus wealthy commercial publishers).

Proponents of open access have supported their position with claims that open-access articles are cited more. But in a forthcoming article, Davis disputes that claim. He described a randomized controlled trial in which he compared downloads and citations of 11 American Physical Society journals that made 247 articles open access on publication. Davis found that open access resulted in more downloads but no increase in citations.

Davis predicted the arguments that advocates of open access will use to undercut his results: "It was never about citations; it's readership that matters"; "The study was not ecologically valid; it's just another publisher study"—and the arguments that opponents of open access will use: "You see, we were right that there is no citation advantage"; "The methodology was rigorous"; "The article was peer reviewed".

If we, as advocates, do not control framing, the media and our opponents will construct it for us. Indeed, that is exactly what has happened to publishers in the open-access debate: the terms of the debate have been set, and open-access proponents have won the battle for public opinion.

Julie Morrison, Bench>Press product manager at HighWire Press, discussed general trends and some specific emerging technologies with relevant implications for publishing.

With Web 3.0 comes the transformation of the Web into a database, a semantic Web with machines talking to machines and

collaborative filtering, three-dimensional shared spaces, natural-language processing, and your data "anytime, anywhere" with a lot of audio and video. Social networking sites, such as Facebook, will be used increasingly as a means for researchers to stay connected and expand their network. Expert opinion will probably be increasingly valued over the wisdom of the crowd.

Morrison gave examples of some of the new Web applications:

- Helium provides a forum for grass-roots peer review (www.helium.com).
- Baynote makes product and content recommendations on the basis of accumulated data on user preferences (www.baynote.com).
- Shyfr aggregates, organizes, reads, and shares RSS feeds (www.shyfr.com).
- Scribd allows authors to upload documents and make them widely available (www.scribd.com).
- Drupal provides an alternative way to host journals on a Web site (drupal.org).
- SciVee is essentially YouTube for science—authors upload video summaries of their published articles, which users can then rate and comment on (www.scivee.tv).

As we move from Web 2.0 to Web 3.0, we will be seeing more direct integration of audio and video into Web sites, more content-delivery options, more active participation by researchers in social networking sites, and more intelligent delivery of content tailored to each user's exact needs. Publishers will need to embrace those changes to continue to deliver the content that users want how and when they want to receive it. 