

# NASW Meeting Has a Political Flavor

**David A Barry**

On 16 February, as lawmakers on nearby Capitol Hill introduced a bill to make more stem-cell lines eligible for federally funded research, the annual meeting of the National Association of Science Writers (NASW) held a timely discussion of the issues that arise when politics and science attempt to influence each other. Several hundred members and guests of NASW crowded the Cafritz Center at George Washington University for the meeting's plenary session, "Framing Science: Has Politics Taken Over the Direction of Scientific Research?"

Rita Colwell, former director of the US National Science Foundation (NSF), downplayed the role of political influence at NSF; she said the foundation is not in the business of making policy recommendations. Colwell challenged the science-writing community to inform the public about the scientific method, to communicate the importance of basic science research, and to "convey the beauty of science". She also said that scientists "need to work within a new context in the 21st century" because their work is increasingly linked to political, ethical, and social values. "Scientists must be in tune with the political reality", Colwell said. "We need to remind ourselves that not every attempt by government to channel research policy or control its message is wrong."

Following Colwell's remarks, Henry Waxman, US representative from California and ranking minority member of the House Government Reform Committee, said he is "concerned" with the state of science under the Bush administration. He charged the administration

with manipulating science by rejecting politically inconvenient scientific findings, obstructing research that conflicts with administration policy, and applying political litmus tests to experts reporting to scientific advisory panels. Waxman said, "We are witnessing an assault on the basic principle that science should inform policy, not echo a political agenda."

John Marburger, science adviser to the president and former director of Brookhaven National Laboratory, did not directly answer Waxman's charges in his own remarks but outlined several challenges that face science writers.

"Language carries with it a world view that we use implicitly", Marburger said. The reporting of new ideas in the physical sciences like dark matter and multidimensional space is "very much on a 'gee whiz' level", he said, because developments in our understanding of nature have outpaced the evolution of ordinary language. Marburger described a similar difficulty in the public understanding of biology research: "The close relationship among all living things that scientists take for granted is still not part of the common understanding."

Another challenge to science journalists, Marburger said, is to express the tentative nature of scientific hypotheses that emerge from simplified models of complex systems involving huge numbers of variables, such as can be found in the health, behavioral, and environmental sciences. In such cases, "interpretation of data is subject to sociologic forces", he said. "In these fields that are both highly complex and highly important to society, the baby of true science is sometimes difficult to detect in the murky bathwater of negotiated positions."

Marburger said that science has become a symbol that advocacy groups on all sides will try to use to their advantage, and he urged science writers to avoid "getting caught up in advocacy power games".

The meeting continued with concurrent

sessions. "Beyond Science Journalism" explored science communication beyond the traditional modes of journalism and public-information officer careers. Evelyn Kelly, an author of children's literature, said writing about science for children is about "fanning the fires". She divided the children's writing market into ages 0-3 ("very hard—it's a lot easier to write a treatise on the taxonomy of the dinoflagellates"); ages 4-7 ("they love animals, but stay away from talking animals"); ages 8-11 (concrete thinkers with a yen for fascinating facts); and ages 12-18 ("abstract thinkers—got to do it with a little bit of flair and a little bit of fun"). Kelly and the other panelists encouraged creative approaches to science communication.

Barry Aprison, of Chicago's Museum of Science and Industry, said successful exhibits will provide "memorable experiences that will imbed themselves in your brain". People are reading less and less, said Aprison. "They're looking for succinct descriptions with visual representations." Margaret Wertheim said, "There's a hunger out there to see science in its aesthetic dimension." She is the founder of the Institute for Figuring ([www.theiff.org](http://www.theiff.org)), which produces lectures, publications, and exhibits on such topics as the physics of snowflakes, the mathematics of paper-folding, and the properties of the hyperbolic plane, demonstrated through the craft of crochet. Wertheim said women are an underserved science-writing market. She said we need new ways of communicating about science and described one approach of putting science into a "cultural landscape" by relating it to history and philosophy.

At "The Future of Information Online", speakers promoted the advantages of online, open-access scientific publication. David Lipman, director of the National Center for Biotechnology Information, observed that in addition to the shift

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to online journal access brought on by institutional and individual investment, the volume of data associated with scientific publication is increasing exponentially because more scientists are using high-throughput methods. Other scientists can use the data not only to understand the author's conclusions but also to do their own investigations. Especially in the field of genomics, Lipman said, the demand for data has driven the push for online open-access publishing.

Lipman also cited evidence that publications can maximize their use and impact by presenting themselves online without requiring a paid subscription or even a completed registration form. When MEDLINE, which had been available for a small subscription fee, was made freely available online as PubMed, use increased by a factor of almost 100 in a short period. And when GeneTest ([www.geneclinics.org](http://www.geneclinics.org)), a free online directory of gene tests for various diseases, removed its registration requirement, use of the Web site quadrupled.

Peter Suber, director of the Public Knowledge Open Access Project, also addressed the issue of open-access publishing, but from a more philosophic perspective. He began by asking, "What's the difference between rock songs and a scientific paper? (There's more than one answer, by the way.)" Both are under copyright, but since the first scientific journal was published in 1665, scientists have not made money from their publications. Back then, scientists published in journals because it

allowed them to place a time stamp on their work, to lay claim to the credit of first discovery. Journals also allow scientists to address a wider audience, to maximize the dissemination of their work. "Scientists write for impact and not for money", Suber said. He argued that the cultural controversy surrounding intellectual property has unnecessarily infected the scientific publishing open-access debate.

Suber also addressed several concerns about the open-access model of scientific publishing. He said the open-access model is compatible with print editions, and journals can still charge for extras and enhancements like "Faculty of 1,000", an online service that highlights the most interesting papers in biology as recommended by a community of scientists. The open-access movement "is not a call to give everything away", Suber said. "For true open-access literature, I want authors to waive some of the rights that come to them under the copyright statute. As soon as you put a paper online and give people permission to read it, you're giving them permission to do much more than is permitted under fair use [such as copying, printing, linking, and sharing]. That's roughly what open access asks for."

Suber proposed a system wherein the clerical cost of peer review, estimated at \$400 per paper, would be covered by the authors whose papers are accepted for publication. However, he cautioned against describing this idea as the "author pays" model, because "that phrase scares authors

away from the idea of open-access publishing". In reality, Suber said, the author's funding agency or employer would pay the bill, and fee waivers could be given in cases of economic hardship.

Gary Price, a research librarian and editor of [resourceshelf.com](http://resourceshelf.com), presented tips for effective Web searching ([www.resourceshelf.com/nasw05.html](http://www.resourceshelf.com/nasw05.html)). He said most people do not take advantage of online resources provided by their local libraries, which are freely available to library-card holders even when they are not at the library.

At the session "Getting the Study (and the Story) Straight: Statistics for Science Writers", Lewis Cope, a former science writer at the Minneapolis *Star Tribune*, said credible reporting will include cautions and caveats about the interpretation of statistics. He said reporters should ask researchers about the design of the study as well as the conclusions: "Why did you design your study the way you did?" "What cautions should people have in viewing your conclusions?" "Is a more definitive study now needed?"

The NASW meeting schedule also included a network luncheon and other sessions: "Science, Politics, and Stem Cells: Where Is the News Headed?"; "Writing for the Long Haul: Tackling Big Projects from Idea to Print"; "Evidence: The Necessary Root of Journalism"; and "Is Science or Censorship Tipping the Scales? Oceans in the Balance". 