A dose of reality at Berlin 9 Open Access Conference: One strategist's take

Researchers, funders, open-access advocates, and publisher representatives came to Bethesda, MD, to attend the Berlin 9 Open Access Conference, held November 9–10 at the Howard Hughes Medical Institute (one of the largest private funders for biological and medical research in the United States). The first Berlin conference (in 2003) produced the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, known as the Berlin Declaration. It called for wide access without payment—dubbed Open Access (OA)—to articles based on the results of research and for associated permissions necessary for users to use and reuse the content in a way that accelerates the pace of research.

The declaration became a rallying instrument for what has become a worldwide open-access advocacy movement. Eight years later, however, OA is "not happening fast enough," in the words of Harold Varmus, director of the National Cancer Institute and one of the first prominent proponents. According to Varmus, the culture of science is to blame. Scientists are slow to take up OA practices because of the effect that might have on their careers. The system of scholarly publishing and rewards needs to be redesigned so that careers are not built using "false standards of publication practices," contended Varmus. Although changing the way scientists evaluate each other will not be easy, funders’ mandates, more OA journals, and more OA advocates should help. Furthermore, while journal articles remain "the vehicle by which the most important products of science are conveyed to the public" (Varmus), to deliver on its promise, OA will have to go beyond providing access to the articles.

The need to incentivize OA by rethinking the scholarly reward system came up time and again. Philip Bourne, a professor in the School of Pharmacy at the University of California at San Diego and editor of PLoS Computational Biology, emphasized the need to educate: "We should be educating the people who are reviewing us about the value of what we're producing."

Michael Crow, president of Arizona State University, thinks that OA faces issues "deeper than the flow problem; it's a design problem." This reaches into the very nature of the university. "Our model of the university as a knowledge enterprise is far from optimized; it's flawed in its design. . . . Fundamental design flaws slow the flow, reduce access, and make OA very difficult to attain," opined Crow. Universities will have to be reimagined. Academic systems and cultures embrace exclusivity, elitism, and rigidity and until they are transformed to become inclusive, egalitarian, open, and dynamic, OA will struggle. For example, a fixed set of rigid, and often "unintelligible constructs define what is science,
what is not science." How can academe argue for OA, wondered Crow, when it cannot even have free information flow between disciplines and has no unified language that would allow different fields to communicate respectfully?

Perhaps the OA advocate message has been too negative, implied one or two speakers: over-focusing on what's wrong with the traditional publishing system instead of flaunting the broad benefits of an open and instant dissemination system of research so, globally, researchers, innovators, and the public can contribute to finding solutions to the world's most distressing problems. "One or two people in this room will die in the next five years because of research that didn't make its way to clinics fast enough," said Cameron Neylon, a scientist at Britain's Science and Technology Facilities Council, using an emotive rhetorical device to quantify the cost of the lack of true OA (instant access that is free of charge to scholarly content available for unlimited reuse).

While OA proponents strategize to grapple with the hurdles to their desired future, AIP has entered the OA waters with its open access title *AIP Advances*. Open access publishing is still in its early days, however, and a guaranteed trajectory for the total market conversion to OA remains elusive.

### Publishing Matters

**AIP partners with Publishing Technology**

AIP and Publishing Technology plc issued a joint press release last Wednesday, November 30, announcing a new partnership to build the next generation of AIP’s Scitation. Publishing Technology supports publishers in many countries, with offices in Europe, the United States, Brazil, and Australia. Complementing their international reach are finely customized offerings and a clear focus on the user experience. Scheduled for launch in the fourth quarter of 2012, the custom platform will be developed using Publishing Technology’s *pub2web* hosting platform—a customized, multi-content publications portal capable of supporting evolving online strategies and satisfying a diverse user base. We believe that AIP and its Member Society publishing partners will be well served by this flexible platform, which will house an impressive combined portfolio of journals and conference proceedings as well as *Physics Today* magazine and historical documents from AIP’s Physics Resources Center. For more information, read the full release.

### Physics Resources Matters

**Involving students in industry outreach forums**

In the Director's Matters column of last week, this audience learned about ways in which AIP brings together physicists from academy, industry, and government labs for productive interactions. These events also provide special learning opportunities for students to view a wide range of possible career paths. The Society of Physics Students sponsored student participation in two such events this fall.

SPS brought six students to the Society of Rheology/AIP-
sponsored networking forum, "Rational Design with Soft Materials," in Cleveland, OH, on October 9. The students, from Kettering, Case Western Reserve, and Cleveland State Universities, were able to interact with AIP staff, SOR annual meeting attendees, and forum speakers in a warm social atmosphere. Only one student had any prior knowledge of rheology, and all were impressed by the breadth of the discipline and its significant roles in industry, from making a consumer-friendly shampoo to building a robotic slug. Sam Roberts of Case Western Reserve University agreed to serve as an SPS reporter; his article describing the event will soon appear on the SPS website.

SPS sponsored four students to attend the AVS-AIP Industrial Physics Forum (IPF) in Nashville, TN, on October 31—November 1. All four students served as reporters, for the IPF and the wider AVS symposium. On the exhibit floor they witnessed a wide range of equipment demonstrations pertaining to vacuum science. Former SPS intern Amanda Palchak, who worked on the AIP Career Pathways project this past summer, interviewed members of the AIP Corporate Associates Advisory Committee to learn what lab directors look for when recruiting graduates with bachelor’s degrees in physics. See what Amanda learned and read about the other students’ experiences in their meeting report—coming soon.

**SPS members from Cleveland State University at the SOR reception. From the left, Krista Freeman, Andreea Sandu, and Michael Hardin.**

**SPS reporters at the AVS symposium discuss how to best communicate the excitement of what they are learning to the greater SPS membership. From the left, Amanda Palchak (Univ. of Southern Mississippi), Rebekah Montgomery (Union Univ.), Ben Stone (Centre College), and Richard Prince (Univ. of Tennessee at Knoxville).**

**Off the Press**

Cover image: Map of maximum wave height for the tsunami that hit the Japan’s northeastern coast in March, 2011.

**Your coordinates, please**

In the New Year, AIP’s performance appraisal process will be moving to a web-based system. In preparation, all staff members are requested to verify their work email stored in Employease. Find this information under the "Work Info" tab. If the address is not your correct Microsoft Exchange address, click on "Update Information," edit the field, and submit your changes. Contact Human
Resources if you need log-in assistance. HR will provide employees with detailed information about this system in the near future. Stay tuned!

Member Society Spotlight

Super Connector search: Featuring ACA Executive Officer William Duax

In October Time Warner Cable encouraged its customers to share how they've connected young people in their communities to the wonders of science, technology, engineering, and math (STEM). William Duax, executive officer of the American Crystallographic Association and friend of AIP, was selected as a finalist, winning a $5,000 grant for the Hauptman Woodward High School Student Mentoring Program. The program is a unique learning experience that affords area high-school students the opportunity to study evolution and bioinformatics. The program has grown over the years, with students from 12 area high schools participating.

The AIP community can help Bill gain an additional $10,000 grant for the mentoring program by voting for him as the "People's Choice." Voting ends December 11. Visit Bill's campaign on the Connect a Million Minds website and read his essay "Making Scientific Research Contagious." Please pass on the link to your colleagues to support Bill's cause if you choose and help raise awareness for the value of STEM outreach.
Coming Up

Monday – Friday, December 5 – 9

- AGU Fall Meeting 2011 (San Francisco, CA)
  AIP Governing Board Chairman Lou Lanzerotti will be honored as AGU’s William Bowie Medalist during an awards ceremony on December 7.

Through Friday, December 9

- Publishing Center holiday toy drive, part of the US Marine Corps Toys for Tots campaign (Melville, NY)

Monday, December 12

- Committee on Publishing meeting (Melville, NY)

Through Tuesday, December 20

- ACP holiday gift drive, benefitting College Park Youth and Family Services (College Park, MD)