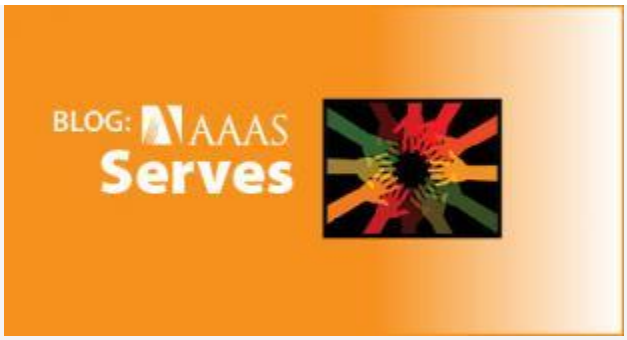
AAAS Serves

- Share | Share on email Share on twitter Share on facebook

Some thoughts on community outreach

June 21, 2012 | Author:Summer Allen, Graduate and Postdoc, Brown University



In 2007 John Holdren, former AAAS president and current science adviser to President Obama, took scientists to task for their lack of community engagement. He proposed that scientists dedicate ten percent of their professional time "to increase the benefits of science and technology for the human condition."

Ten percent of my time? Eek, I'm way behind. And I'm not alone, a recent study of physicists and biologists found that only 58 percent of survey responders (and only 1/3 of postdocs) reported doing some sort of science outreach activity.

I, like most of the scientists I know, would like to be more involved in outreach activities. What are the factors that stop scientists (including me) from being more involved in community outreach activities? And how can we improve this?

Why it can be tough for scientists to do outreach:

1. **It takes time**: Between research, teaching, serving on committees, applying for grants, and mentoring students, scientists have a difficult time fitting one more thing into their schedules (see recent posts by scientist-bloggers Scicurious and Jeanne Garb).
2. **It isn't always rewarded**: Publication records often serve as a proxy for scientific success for grants, tenure, and promotion. The 'publish or perish' mentality can lead early stage scientists to limit activities that they don't see helping them reach tenure. For example, anthropologist Kate Clancydescribed how her tenure committee counts her blog as a type of academic writing but also told her to spend more time on traditional research activities.
3. **We don't know what works**: If scientists have limited time to devote to outreach, what should they be doing? Visiting schools? Giving public lectures? Talking to the press? In 2001, physicist Dr. Diandra Leslie-Pelecky did a pretty typical outreach project—she brought three female graduate students to talk to nine and ten year olds about circuits, electricity, lab work, and careers. Despite introducing (and re-introducing) themselves as scientists and talking about their jobs as scientists during their four visits to each classroom, a follow up study showed that the students "rejected the idea that the visiting women were scientists" (this whole paper is a bit depressing, actually). Scientists may be afraid that what they do won't make a difference.

4. **We're afraid**: In a world where Hyper-Intelligent Space Dinosaurs Drink Red Wine for Health, some researchers are afraid that their work will be taken out of context. Others are afraid of being scooped by competing labs, becoming targets for animal rights activists, or garnering less respect as scientists.
5. **We talk like scientists**: Scientists are trained to talk in jargon and to think in endless nuance. This can make it hard to convince our great-aunts that calcium channels are important during Thanksgiving dinner (speaking from experience here). Luckily, there are whole books devoted to ways to deprogram us.

Wow, so we have many (potential) hang-ups! Should scientists just focus on doing science and leave the translation to institutions and trained communicators? I'm not sure I buy this. Yes, institutions and science communicators are vitally important for outreach, but it still benefits society to have actual contact with scientists -- at the very least to show people that science is a viable career path and that all types of people can be scientists.

Below I suggest that the solution may lie in having scientists collaborate with trained communicators, educators, and institutions. In fact, some of the most successful forms of a outreach that I know of involve this type of collaboration:

Collaborations: The key for outreach success?

1. **With writers:** The NSF funded project To think, to write, to publish teams up new science Ph.D.s with early-career science communicators. At workshops, the two groups meet learn to meld science with storytelling, the end result being popular press publications.
2. **With teachers:** Project ARISE is an NIH-funded program run through Brown University that teams up researchers with high-school science teachers. The scientists are involved in teacher training, bring mobile labs to the classroom, and help students design their own experiments.
3. **With policy makers:** The AAAS Science & Technology fellowship program teaches newly minted Ph.D.s the nitty gritty of science policy by putting them to work for a government agency or congressperson(who also benefit from the scientist's expertise). California has a similar program at the state level.
4. **With museums:** This month the American Museum of Natural History hosted an "Identification Day" where people brought in objects and scientists identified them. In my home state, the Oregon Museum of Science and Industry has a wildly popular science pub series where scientists and non-scientists chat over brews. Portlanders love their science and their beer –people have told me that you have to get there really early to get a seat at one of these! Seattle has something similar. I say New England should be next…
5. **With the media:** I've found that social media (Facebook, blogs, twitter, etc.) is a great way to talk about science with other scientists, friends, family, science writers, and perfect strangers! Miriam Goldstein has put together a great flowchart about which social media tools are best for different time commitments and reaching different groups. If you're on twitter, join the #reachingoutsci conversation. If you want to direct your friends to blogposts that decipher recent findings for lay people, send them toResearch Blogging (and think about adding a post yourself). Also connect with AAAS on social media, we have a full list here.

These collaborations might not be the answer to all the concerns presented in the first part of the post, but I think they're promising starts.