

The COPUS Clarion

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The Coalition on the Public Understanding of Science (COPUS) is a grassroots effort linking universities, scientific societies, science centers and museums, advocacy groups, media, educators, government agencies, businesses, and industry in a peer network having as its goal a greater public understanding of the nature of science and its value to society.

“IF YOU DON’T STAND UP FOR SCIENCE, THEN NO ONE ELSE IS GOING TO DO IT. WE AS JOURNALISTS AND SCIENTISTS HAVE TO FIGURE OUT WAYS TO SHARE SCIENCE IN PLAIN ENGLISH WHENEVER POSSIBLE.”

-- Ira Flatow, host of National Public Radio’s Talk of the Nation: Science Friday, Year of Science 2009 launch, Boston

This is our chance; let’s take it!

Scientists, as individuals and as a community, have an opportunity to communicate science, to increase the public engagement in science, and to help everyone understand just how wonderfully pervasive science is in all of our lives. I am often asked: “What should scientists be doing to communicate what science is and why it matters to the public? What types of outreach will truly raise the esteem in which science is held?” Professional scientists, particularly academic scientists, can do a bunch of things to improve public interest in and understanding of science! Here are a few suggestions of how:

- **SHARE GOOD READING.** Make an effort to buy and read books about science, and recommend the good ones to other people (by, say, writing reviews of them on web sites or in print). When you run across a general-audience book in your field, try not to get hung-up on the way that it glosses over fiddly details. Look at the bigger picture. Ask yourself whether it would be a good book for someone who is just curious about science. Tell others about the worthwhile or inspiring books, articles, and websites you read.

- **SUPPORT AND DEMAND SCIENCE IN THE MEDIA.** Unfortunately, coverage of science in the media is on the decline. We, as scientists and science enthusiasts, can insist upon better and more frequent coverage of science, especially at a time when scientific literacy is imperative to sound decision-making. Scientists and fans of science understand how, more so than at any other time in history, science plays a pivotal role in our lives. It is our responsibility, therefore, to request and support television programming that engages the public in science.

- **SUPPORT SCIENCE EDUCATION ACROSS THE BOARD.** In addition to responding to attempts to dilute science in our classrooms, vote for those measures that ensure and support the correct teaching of biology, math, chemistry, and physics.

- **GET INVOLVED IN SCHOOLS.** If you’ve got kids, find out what they’re learning in science class, and offer to help if you know something relevant. If you don’t have kids, offer to help at the local schools. Schools need all types of assistance -- from organizing professional development workshops for local teachers and students, to volunteering, to speaking to classes, to judging science fairs, to donating old equipment to be used for demonstrations and labs.

- **FOCUS ON YOUR TEACHING.** For all those that have teaching responsibilities, this is the platinum opportunity to elevate the public’s interest in science! Think about your lessons and the way you convey the wonder of science. Your students are potential great scientists. Make an effort to reach them. Better yet, some of them could be great science

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Share good reading • Support and demand science in the media • Get involved in schools • Focus on your teaching • Encourage students to pursue their interests • Reward and encourage those who like to do public outreach • Communicate science

teachers. Additionally, if you’re in a position to advise students, encourage them to go into education. A big part of the image problem of science stems from bad experiences that people have with bad science teachers. On the

other hand, many a student-turned-scientist got into the field because one teacher left a lasting impression about how science impacts our lives and the rewards of studying science.

- **ENCOURAGE STUDENTS TO PURSUE THEIR INTERESTS,** even those that are not going to follow the traditional science-career path. We should eliminate the stigma associated with leaving academic-science. Somebody who gets a degree in physics and then goes to law school or business school is one more person that understands the applicability and importance of science. It is one more person that will show others the amazing relevancy of science in our lives and be able to communicate that to a whole new generation.

- **SUPPORT AND ENCOURAGE THOSE WHO LIKE TO DO PUBLIC OUTREACH.** When you run across a student who is a gifted communicator, encourage him or her to talk and write about what they love, especially if it is science. In the Web 2.0 world, it is easy to blog and to post to relevant social networking groups and web sites. Remind students that the public with whom they are talking will ultimately vote on the funding for their research grants. It's in their interest to have the public interested in science and wanting to fund science.



Image: National Science Foundation

- **COMMUNICATE SCIENCE.** If you have the skills needed to speak effectively to a broad audience about science, then do it. If you're just not ready to speak publicly about science, then I hope you'll recognize how important it is to support the people who are communicating science. Sometimes, the more unconventional the mechanism for communication, the better!

- **REWARD OUTREACH BY OTHERS.** Lastly, if you're in a position to do so, reward outreach efforts. Scientists, particularly in academia, all too often regard time spent doing public outreach as wasted time. Doing outreach is as important as spending time in the lab. Funding is what makes modern science possible. Money will ultimately come from the public, so the public needs to know about science and why it is important. When you see outreach activities listed on a job application or in a tenure file, count those as a positive factor and indicate to the applicant that these outreach efforts are noticed and a valid professional activity. If you really want to get radical, start trying to treat a lack of outreach activity as a negative factor.

Stay tuned to COPUS and Year of Science 2009 to learn more ways that you can get involved in communicating science and support the individuals and organizations that do!



Article adapted from a blog posting by Chad Orzel, Associate Professor in the Department of Physics and Astronomy at Union College. He maintains the weblog *Uncertain Principles* (<http://scienceblogs.com/principles/>) as part of the ScienceBlogs collection of blogs sponsored by Seed magazine. He is working on a popular audience book explaining quantum mechanics through imaginary conversations with his dog, to be published by Scribner in late 2009.

COALITION NEWS:

- Welcome to our more than 200 new participating organizations!!
- Welcome to the new international organizations celebrating Year of Science 2009! www.copusproject.org/yearofscience2009/international.php

- Regional hubs gearing up in 19 cities! For additional information contact the regional hub liaison in your area: http://www.copusproject.org/regional_hubs.php

YEAR 2009
of **SCIENCE**
Explore. Empower. Engage...

Year of Science launch in Boston tremendous success!

The best thing about the Year of Science launch in Boston was that it ended with the question: "What are we doing next year; we want Year of Science to last forever!" With stellar presentations by Ira Flatow, Carl Zimmer, Ken Miller and many others, the year was successfully launched with great enthusiasm and fervor for why scientists should get involved in communicating science and ways to do it. The Year's launch was complemented by the launch of the Understanding Science Web site (<http://www.understandingscience.org>), a content rich resource funded by the National Science Foundation that will help change the way we think about, talk about, and teach science. To learn more about the launch, view the features section of the Year of Science Web site at: www.yearofscience2009.org/blog/

Questions? Comments? Ideas? Contact Sheri Potter at spotter@copusproject.org.

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