**Science Communication and Public Engagement**

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American Association for the Advancement of Science (AAAS)

# Text version of presentation for 2016 KT Conference: Communication Tools for Moving Research to Practice

Conference information: [https://ktdrr.org/conference2016](http://ktdrr.org/conference2016)

**Slide 0: Communication Tools for Moving Research to Practice**

**Title slide template:** Blue background with American Institutes for Research (AIR) logo in the background and a grey bar at the bottom.

Communicating Science and Engaging the Public

Hosted by AIR’s Center on Knowledge Translation for Disability and Rehabilitation Research (KTDRR)

October 24, 26, and 28, 2016, from 1–5 PM Eastern

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Image of American Institutes for Research (AIR) logo

Image of National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) logo

**AAAS slide template**: A large white space, with a blue bar across the bottom. In the center of the bar is the AAAS logo and letters AAAS, Center for Public Engagement with Science & Technology.

**Slide 1: Communicating Science and Engaging the Public**

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Tiffany Lohwater

Twitter logo @Tiffanylohwater

Deputy Chief Communications Officer, American Association for the Advancement of Science (AAAS)

**Slide 2:** AAAS Advancing Science, Serving Society

On left side, photo of *Science* magazine cover. Photo Credit: *Science* Magazine/AAAS

On the right side of the slide are boxes with these words: Enhancing Education, Global Outreach, Policy and Advocacy, Public Engagement, and Supporting Careers.

[aaas.org/join](http://www.aaas.org/join)

**Slide 3: AAAS Center for Public Engagement With Science and Technology**

Three photogaphs of (left to right) women participating in a communications workshop, a woman giving a public talk, and a scientist engaging with a father and son at a public event for families. Photos credit: Atlantic Photography Boston for AAAS

These words are underneath the pictures: Seminars, Programs, Workshops, and Online resources.

[aaas.org/pes](http://www.aaas.org/pes)

**Slide 4: Comic from [phdcomics.com](http://www.phdcomics.com/)**

First panel: Man and woman are talking. Man: “What are you doing?” Woman: “I’m reading your thesis.”

Second panel: Woman looks up to him and says: “I figure you worked so hard on it for so many years, the least I can do is try to understand what it is that you did.”

Third panel: Woman is concentrating and reading.

Fourth panel: Man: “How’s that going?” Woman: “Haven’t made it past the title. Is this even English!??”

Jorge Cham©2007. Photo Credit: "Piled Higher and Deeper" by Jorge Cham

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**Slide 5: Different Styles of Communication**

Graphic with two triangles.On the left, the tip of the first triangle faces bottom of slide. The word Researcher is inside the triangle. To the left of Researcher are three aspects (top to bottom): Background, Supporting Details, and Results/Conclusions. The tip of the second triangle, on the right, points to ward the top of the slide. In this triangle is the word Public. To the right of Public are the following terms (top to bottom): Bottom-Line, So What?, Supporting Details.

**Slide 6: Sample Issues at the Interface of Science and Society**

* National security
* Bioterrorism
* Evolution
* Stem cell research
* Energy policy
* Sustainable development
* Synthetic biology
* Climate change
* Genetic medicine
* Emerging infectious diseases
* Genetically modified foods
* Space exploration
* Nanotechnology
* Education
* Water resources
* Social inequality

**Slide 7: Public Engagement Framework**

Image of the Public Engagement Framework with an outward circular arrow starting from the symbol of Scientific Institutions going toward the symbol of Society. Another arrow goes from Society to Scientific Institutions to form a circle. Inside the circle, the symbol of the scientist is at the top with an arrow labeled Scientist Message points toward the symbol of Audience. From the symbol of audience, an arrow labeled Audience Feedback goes back to the scientist to form a circle. In the middle of the entire circle, the word Goal is presented in blue.

**Slide 8: Public Engagement Framework**

Image of the public engagement framework as described on slide 7. The word Goal is presented in green.

**Slide 9: Why Do Scientists Participate in Communication and Engagement Activities?**

* Foster trust between scientists and society.
* Get others excited about science.
* Promote use of research in decision making.
* For you: Brings personal meaning to your work and increase skills for other areas of your career.

What is your goal?

**Slide 10: Public Engagement Framework**

Image of the public engagement framework as described on slide 7. The word Audience is presented in green.

**Slide 11: Define your audience**

* Demographics: age, gender, ethnicity
* Culture
* Geographic location
* Level of understanding and interest
* Experiences with your topic
* Interests, values, concerns

**Slide 12: Define your audience**: **Resources**

* Event organizer
* Communications officer
* Colleagues
* Organization’s materials and website
* On-the-spot
* Social media search

Who is your audience?

**Slide 13: Public Engagement Framework**

Image of the public engagement framework as described on slide 7. The words Scientist Message and the arrow underneath are presented in green.

**Slide 14: The Three Ms of Message**

* Miniature
* Memorable
* Meaningful

**Slide 15: Example**

Goal and Audience

Convey to HR professionals and parents: “Workplace policies can reduce postpartum depression.”

Three key points:

1. Parental leave
2. Job flexibility
3. Workplace support

**Slide 16: Jargon**

* Industry/technical terms
* Acronyms
* Words with multiple meanings
* Phrases such as “drug delivery” combining two ordinary words to create a new technical term

**Slide 17: Engagement Opportunities**

**Slide 18: Engagement Opportunities**

* Traditional media
* In-person
* Online

Resources: [aaas.org/page/communicating-engage](http://www.aaas.org/page/communicating-engage)

**Slide 19: Traditional Media**

* Newspapers
* Magazines
* Television
* Radio

Photo of a stack of newspapers. iStock image purchased by AAAS

**Slide 20: In-person**

* Meetings with policymakers
* Public lectures
* Science festivals
* Museums
* Libraries
* Science cafés
* Citizen science
* Talk with your community
* Senior centers
* Rotary clubs
* Local schools
* Hands-on science
* Lab visits, campus events

**Slide 21: Online**

* Facebook
* Twitter
* Blogs
* Instagram
* Snapchat
* YouTube
* LinkedIn
* Pinterest
* Reddit
* Flickr
* Wikipedia
* Website

Image of a desktop computer, laptop, tablet, phones, and newspapers showing a newspaper. iStock image purchased by AAAS

**Slide 22: Facebook**

* Facebook is the most popular social networking site in the United States.
* Seventy-one percent of U.S. online adults are on Facebook.
* Often Facebook is more personal, unless you have a public profile.

Logo of the Facebook f on the right side of the slide

**Slide 23: Twitter**

* Twitter is the prominent social networking site for science communication.
* Twenty-three percent of U.S. online adults are on Twitter.
* It is used for conversations.

Logo of the Twitter bird on the right side of the slide

**Slide 24: Public Engagement Framework**

Image of the public engagement framework as described on slide 7. The words Audience Feedback and the arrow underneath presented in green.

**Slide 25: AAAS Opportunities**

**Slide 26: AAAS Science and Technology Policy Fellowships**

* Yearlong assignment in executive, legislative and judicial branches in Washington, D.C. (up to three years).
* Learn firsthand about policymaking and implementation.
* Provide knowledge and analytical skills to federal government.
* Must have PhD and U.S. citizenship to apply

[www.aaas.org/policy-fellowships](http://www.aaas.org/policy-fellowships)

On the right side of the slide: PhDs & U.S. citizens; 1 year on Capitol Hill; Applications due Nov. 1; @AAASFellowships

**Slide 27: AAAS Mass Media Science and Engineering Fellowships**

* 10-week collaboration with media professionals at radio and television stations, newspapers, and magazines.
* Must be enrolled as college or university students—or within one year of a completed degree.
* Must be a U.S. citizen or hold a visa.

[aaas.org/program/aaas-mass-media-science-engineering-fellows-program](http://www.aaas.org/program/aaas-mass-media-science-engineering-fellows-program)

On the right side of the slide: College/University Students; 10 weeks in a newsroom; Applications due Jan. 15.; @AAASMassMedia

**Slide 28: Alan I. Leshner Leadership Institute for Public Engagement with Science**

Photo of the 2016 Leshner Leadership Institute fellows.

Photo Credit: AAAS

* Empowers midcareer scientists and engineers to communicate effectively about science-society issues.
* Become a change agent. Participate in and promote high-impact public engagement activities in your community.
* AAAS staff provide a year of support and continuing professional development.

[aaas.org/leshner](http://www.aaas.org/leshner)

On the right side of the slide: Infectious disease researchers (Mid-Career); 1 week training in Washington, D.C. + year-long staff support; Applications due Nov.1

**Slide 29: AAAS Early Career Award for Public Engagement with Science**

Recognition for early career scientists and engineers who demonstrate excellence in their contributions to public engagement with science.

[aaas.org/PESaward](http://www.aaas.org/PESaward)

On the right side of the slide: Early career scientists and engineers; $5,000 prize; Free trip to AAAS Annual Meeting; Applications due Oct.15

**Slide 30:** ***Science* in the Classroom**

* Collection of annotated scientific research papers and accompanying materials from *Science* family of journals.
* Volunteer contributors translate scientific research into language appropriate for an advanced high school and undergraduate audience, and help develop teaching materials.

[scienceintheclassroom.org](http://scienceintheclassroom.org/)

Picture of *Science* AAAS Logos

To the right of the pictures are the words: Volunteer contributors; Training and support; Ongoing

**Slide 31: Introducing Trellis: a new communication and collaboration platform from AAAS**

Logo: Trellis - Ideas Grow Here

<http://www.trelliscience.com/publicengagement>

**Slide 32: Thank You!**

* Contact me: **tlohwate@aaas.org**
* Resources: [aaas.org/communicatingscience](http://www.aaas.org/communicatingscience)

Communicating Science: Tools for Scientists and Engineers

Workshops; Message Development; Public Outreach; Multimedia; Media Interviews and Social Media

**Slide 33: Disclaimer**

The author(s) developed and presented the contents of this file at an online conference sponsored by the Center on KTDRR. The online conference was developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DP0027). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this presentation do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.