



Public Engagement at BEACON BEACON Congress 2017

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Resources can be found at: <https://goo.gl/r47tpR>
See also: guides.lib.utexas.edu/BEACONworkshop

Engaging with the public is a fundamental professional responsibility for academic scientists and is required by many federal funding agencies. Engagement is also a civic duty. Importantly, engaging with the public develops professional skills central to a successful STEM career. Research shows that communicating, consulting, and/or participating with the public enhances communication, teaching, and leadership skills and enriches scientists' own understanding of their research and field. However, the best practices for public engagement are rarely taught, and evidence-based curricula are not available to be widely implemented. Our long-term goals include integrating public engagement skills and experience into the standard graduate and postdoctoral training curriculum and expanding public engagement at BEACON.

Towards these goals, we are excited to lead two Sandboxes at the 2017 BEACON Congress. 1) Build a Frame: Matching the scientific context to the audience: Framing a scientific message to be appropriate for the audience is one of the most important parts of effective public communication. Framing is a way of presenting information that appeals to and resonates with the audience while ethically maintaining the integrity and accuracy of the science. The same skill set can also be utilized professionally. 2) Bridging the gap between STEM and public policy: There is a rapidly growing interest among STEM professionals to engage with public policy and policy makers. Our data also show that BEACONites already engage the public through a wide variety of activities; however, there is a striking underrepresentation of policy engagement.

Selected resources:

Calls to action and approaches to engagement:

- [Science advocacy: Get involved](#)
- [Give the public the tools to trust scientists](#)
- [Engaging the Scientific Community with the Public](#)
- [Researchers may have finally found an antidote to biased thinking about science](#)
- [What I learned from my visit to Capitol Hill about engaging with policy makers and mentoring students](#)
- [Take the time and effort to correct misinformation](#)

Articles with how to's & recommendations:

- [Engagement 2.0: Increasing our Collective Impact](#)
- [How to Deal with Reluctant Audiences 1](#) (parts [2](#), [3](#), [4](#))
- [Why can't scientists talk like regular humans?](#)
- [Scientists, Stop Thinking Explaining Science Will Fix Things](#)
- [The Essential Role of Storytelling in the Search for Truth](#)
- [Why Facts Don't Change our Minds](#)

Science communication online toolkits, training, and resources:

- [AAAS: Science Communication Toolkit](#)
- [AAAS Center for Public Engagement with Science & Technology](#)
- [Frame Works Institute: Introduction to Strategic Frame Analysis eWorkshop](#)
- [Many Experts, Many Audiences: Public Engagement with Science and Informal Science Education](#)
- [ASBMB: The art of science communication](#)
- [National Alliance for Broader Impacts](#)
- [Portal to the Public](#)
- [Science communication: A practical guide](#)

STEM & public policy training and resources:

- **National Postdoc Association:** A Postdoc's Guide to Advocacy: [Advocacy Overview](#); [A Lobbying Primer](#); [Understanding the Legislative Process](#); [Making the Case for Science Research](#); [Additional Resources](#)
- **National Postdoc Association:** [Science beyond the laboratory: Developing skills to be an effective advocate for science](#)
- [Engaging Scientists & Engineers in Policy \(ESEP\) Coalition](#)
- [American Institute of Biological Sciences](#)
- [314 Action](#)

Selected peer-reviewed research:

- Toby Bolsen, James N. Druckman, Fay Lomax Cook. [How frames can undermine support for scientific adaptations: politicization and the status-quo bias](#). *Public Opinion Quarterly*, Vol. 78, No. 1, Spring 2014, pp. 1–26
- James N. Druckman & Toby Bolsen. [Framing, Motivated Reasoning, and Opinions About Emergent Technologies](#). *Journal of Communication* 61 (2011) 659–688.
- Teresa A. Myers & Matthew C. Nisbet & Edward W. Maibach & Anthony A. Leiserowitz. [A public health frame arouses hopeful emotions about climate change: A Letter](#). *Climatic Change* (2012) 113:1105–1112
- Nisbet, Matthew C. [Communicating climate change: Why frames matter for public engagement](#). *Environment: Science and Policy for Sustainable Development* 51.2 (2009): 12-23.

See also: [selected references](#) curated by Roxanne Bogucka, STEM Librarian at UT Austin

Books:

[Am I Making Myself Clear?](#) by Cornelia Dean

[Don't Be Such a Scientist](#) by Randy Olson

[The Death of Expertise](#) by Tom Nichols

[Unscientific America](#) by Chris Mooney, Sheril Kirshenbaum

Science & Technology: Public Attitudes and Understanding (and much more):

[National Science Board: Science & Engineering Indicators 2016](#)