

Communicating Your Research: A Workshop

Feb. 26, 2018
1-3 pm

*“Communication is not something you add on to science.
It is the essence of science.”*

Alan Alda
Alda Center for Communicating Science,
Stony Brook University

Our agenda

1. Introductions
2. The case for communication
3. The curse of knowledge
4. Getting (un)comfortable
5. Feedback
6. Introductions (redux)
7. What's next?

Introductions

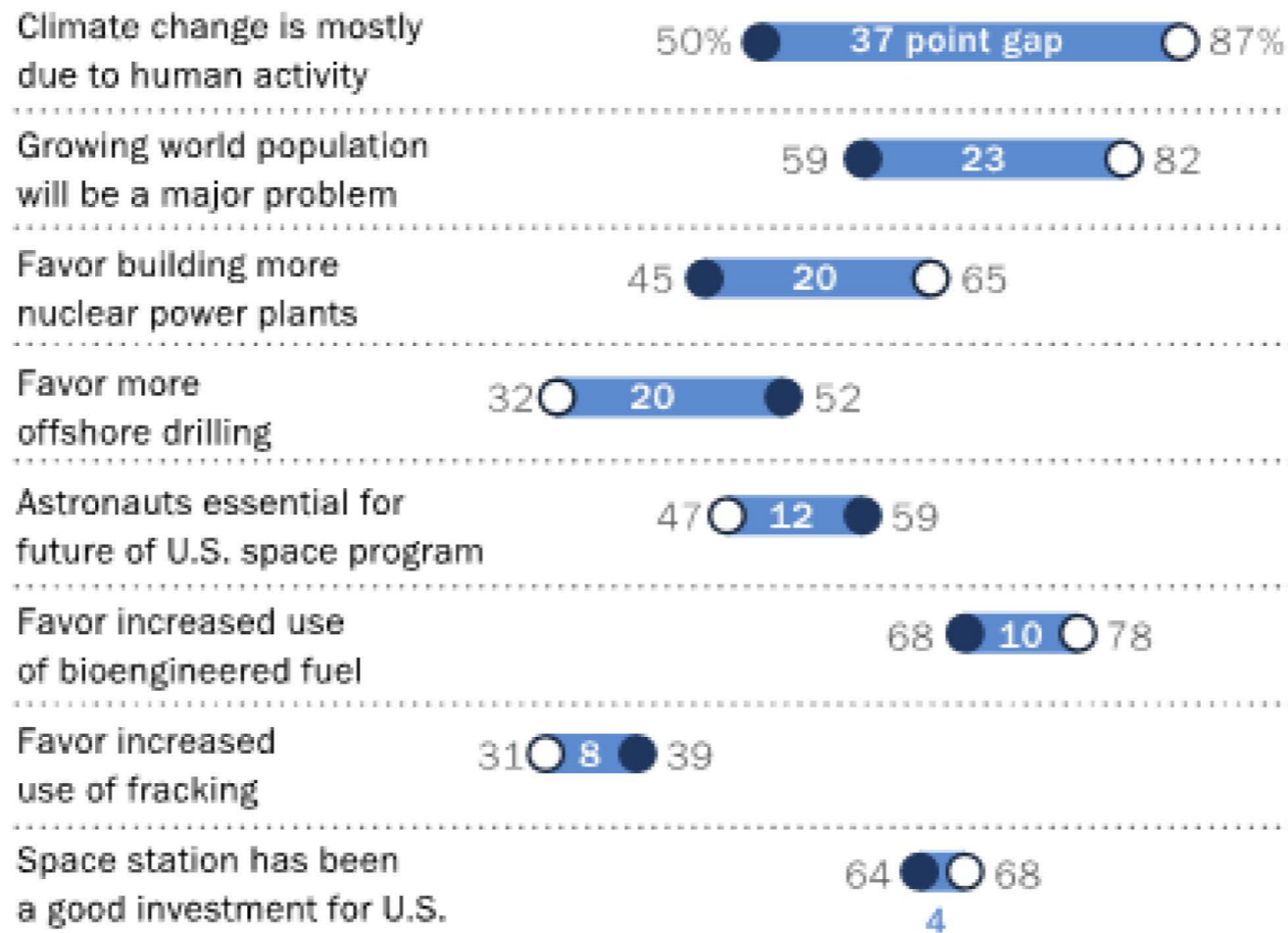
- Your name and title
- **In one sentence ONLY:** What do you research and why does it matter?

It's your job . . .

- Make sure people know what you do
- Make sure people know why it matters
- Or you doom us all to this:

Opinion Differences Between Public and Scientists

% of U.S. adults and AAAS scientists saying each of the following



Survey of U.S. adults August 15-25, 2014. AAAS scientists survey Sept. 11-Oct. 13, 2014. Other responses and those saying don't know or giving no answer are not shown.

It's your job . . .

- To talk to people who don't work in your lab or field
- To see communication as an essential part of the research you do
- To avoid the curse of knowledge

The Curse of Knowledge

- Don't use jargon
- Don't 'Dumb down'
- DO understand problems/potential in a click-bait world

CLEVELAND: The longest homestand of the season for the Cleveland Cavaliers started with an unwelcome shooting slump against the San Antonio Spurs in a 110-94 loss Sunday.

Cleveland was cold from the field (41.8 percent) and even frostier for 3 (23.5 percent from deep) as the Cav's post all-star break record dropped to 1-2. San Antonio used a 14-0 run from late in the third quarter through the start of the fourth to bust open a 13-point lead and controlled the game from there.

Outside of LeBron James, who filled up the box scores with 33 points on 14-for-25 shooting, 13 rebounds and 0-for-10 on 3-pointers.



The popular home team was the second best in the country. But despite a great performance by the team's lead player and all-around town hero, the home team lost to rival outsiders in an upset that was a big disappointment for their fans and the town.

Tell a story

- Make it about people—make it *personal*
- What is surprising, exciting, difficult, upsetting, mysterious?
- Your *process* can be compelling. . .and illuminating
- Remember to have a beginning, middle and end;
or ABT = and (momentum), but (conflict),
therefore (resolution)

So what?

- How does your research impact your audience's lives?
Aka Why does what you do matter?
- Understand traditional news values:
 - Timeliness
 - Proximity
 - Prominence
 - Conflict
 - Controversy
 - **Consequence**
 - Baby animals, babies and celebrities

Make it clean. Make it crisp. Make it clear.

- Use active verbs
- Be as specific as possible
- Main point first, followed by strategic details
- Start simply, then add complexity when
(and if) necessary

Anecdotes and analogies

Before

- ‘We use 60-170 billion gallons of water every day to cool power plants.’

After

- ‘Each minute, power plants use three times the amount of water flowing over Niagara Falls during the same time period.’

An example

[Direct Measurements Show Decreasing Methane Emissions from Natural Gas Local Distribution Systems in the United States](#)

An example

Abstract: Fugitive losses from natural gas distribution systems are a significant source of anthropogenic methane. Here, we report on a national sampling program to measure methane emissions from 13 urban distribution systems across the U.S. Emission factors were derived from direct measurements at 230 underground pipeline leaks and 229 metering and regulating facilities using stratified random sampling. When these new emission factors are combined with estimates for customer meters, maintenance, and upsets, and current pipeline miles and numbers of facilities, the total estimate is 393 Gg/yr with a 95% upper confidence limit of 854 Gg/yr (0.10% to 0.22% of the methane delivered nationwide). This fraction includes emissions from city gates to the customer meter, but does not include other urban sources or those downstream of customer meters. The upper confidence limit accounts for the skewed distribution of measurements, where a few large emitters accounted for most of the emissions. This emission estimate is 36% to 70% less than the 2011 EPA inventory, (based largely on 1990s emission data), and reflects significant upgrades at metering and regulating stations, improvements in leak detection and maintenance activities, as well as potential effects from differences in methodologies between the two studies.

The stories

University release:

[Direct measurements show lower local methane emissions](#)

Policy trade publication:

[Methane leaks from city pipes have dropped sharply, study finds](#)

Industry PR release:

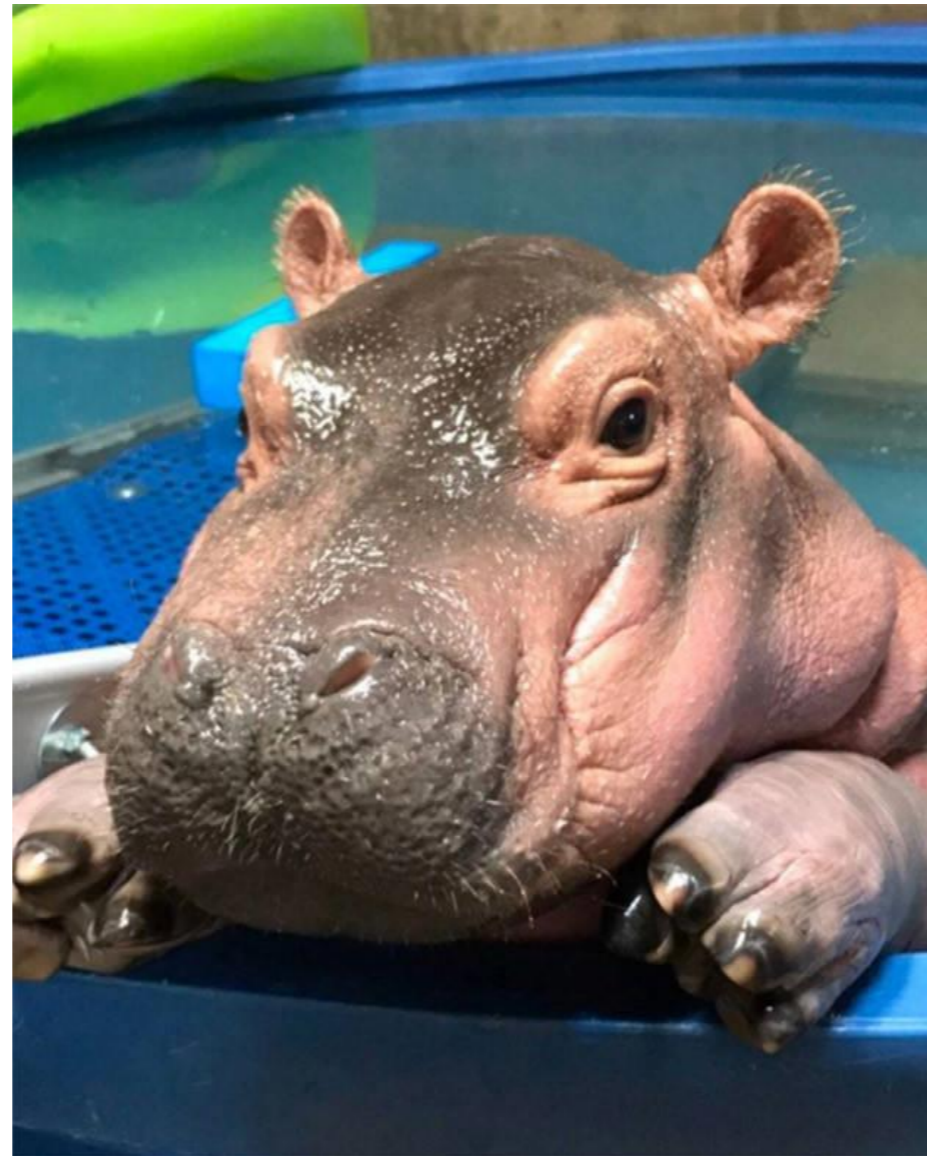
[PG&E Upgrades to Natural Gas System Helping to Reduce Greenhouse Gases](#)

New York Times story:

[Gas Utilities Reduce Leaks of Methane, Study Finds](#)

Why improv?

- Reimagining your connection to your audience
- Communication = Empathy + Clarity



Fiona says: 'Play ball!'

Dinner party

- Pick a slip of paper—this is your party identity
- Talk with your group and try to figure out who everyone is—could be an individual or a TYPE of person.
- NO direct mention of your name or title—give HINTS by answering questions only!

Feedback:

- One word: How did that feel?
- What was most challenging? Why?

Your turn, again

- What do you research? (and)
- What are you trying to learn and/or What problem(s) are you trying to solve/address? (and)
- What are the barriers or conflicts, the challenges or unknowns? (but)
- What have you learned as you have worked to overcome those conflicts and unknowns?
Why does what you have learned and/or are pursuing matter? (therefore)

But seriously. . .

- Your choice:

Individuals up front?

Turn to partners and each practice?

Reaction sheets

- Was there a story? (Beginning, Middle, End)
- Was there emotion?
- Was it relatable?
- Why did you (or would you) care?
- What piece of praise would you offer?
- What piece of advice would you offer?

Feedback:

- What changes did you hear? (In others, in yourself?)
- What difference(s) did those changes make?
- What are you going to work on with your introduction?
- When will you practice what you have learned? **BE SPECIFIC!!**

Thank you!

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