

**SEPT. 4, 2019**



The University of Texas at Austin  
Moody College of Communication

# TRAINING SCIENTISTS TO COMMUNICATE

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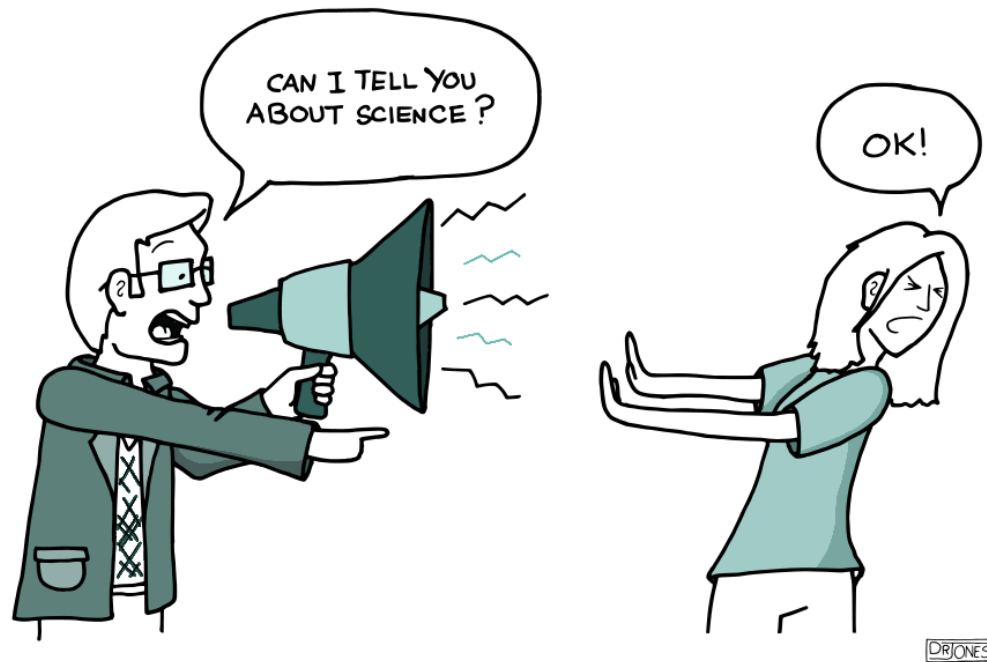
NASEM | Standing Committee on Advancing Science Communication Research & Practice

**ANTHONY DUDO**

Associate Professor & Program Director for Science Communication

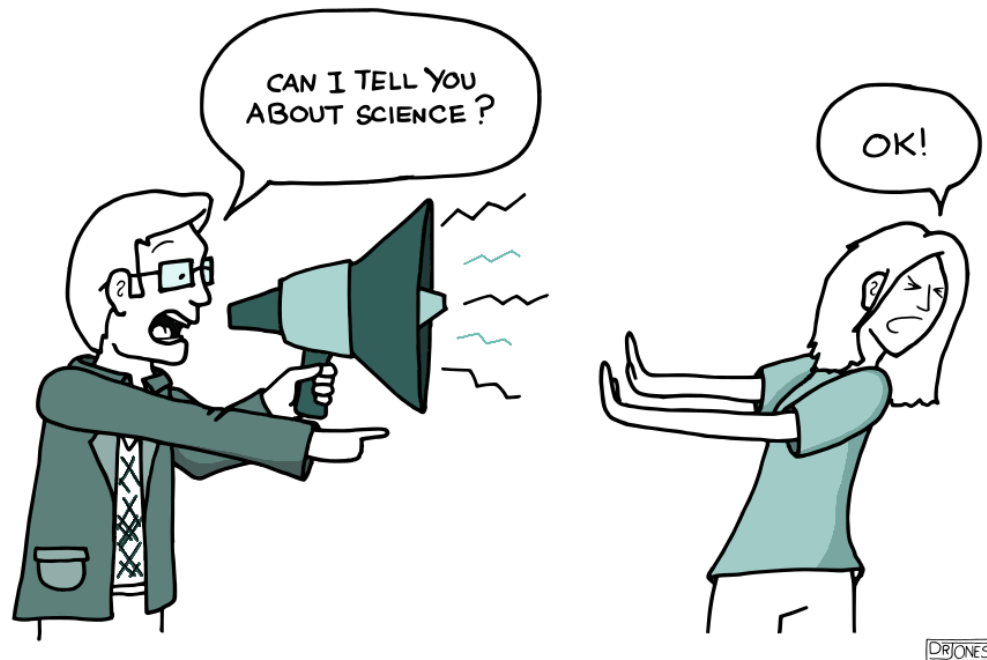


Scientists aren't very scientific about their science communication.





They need help  
communicating.  
And that's ok.





PORTAL  
to the Public



ComSciCon

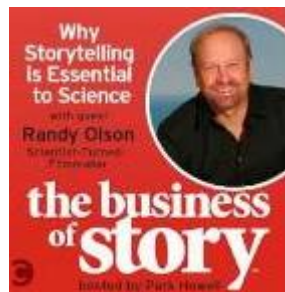
*The Communicating Science  
workshop for graduate students*

COMPASS

Alan Alda Center  
for Communicating Science



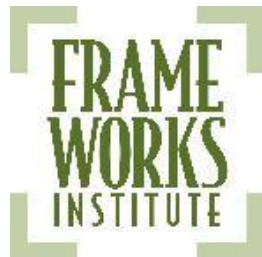
AT STONY BROOK UNIVERSITY



AAAS  
Communicative  
Science  
Workshop



CIENCIA  
PUERTO RICO



Beakerhead





## What we've done ...

- Semi-structured interviews with science communication trainers
- July-September 2017
- 33 North American trainers
- Qualitative analysis (ongoing)
- Expanded on our 2014 interviews
- Have also surveyed scientists (>15K) and interviewed comm staff at:
  - science societies (2018)
  - science philanthropies (2018)
  - science communication fellowship programs (2019)



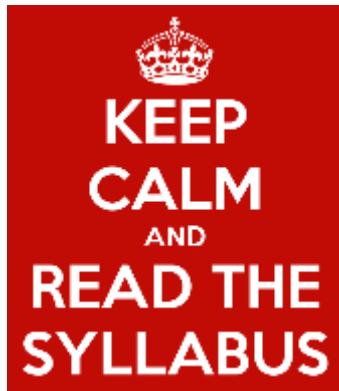


# Want better training? ... Focus on these 5 issues.

## Interaction



## Curricula



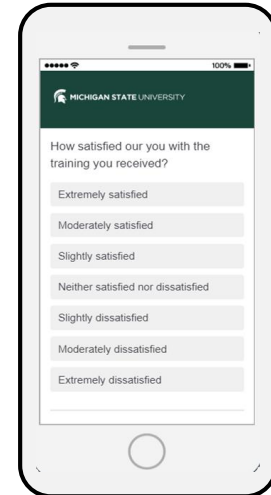
## Strategy



## Trainees



## Evaluation





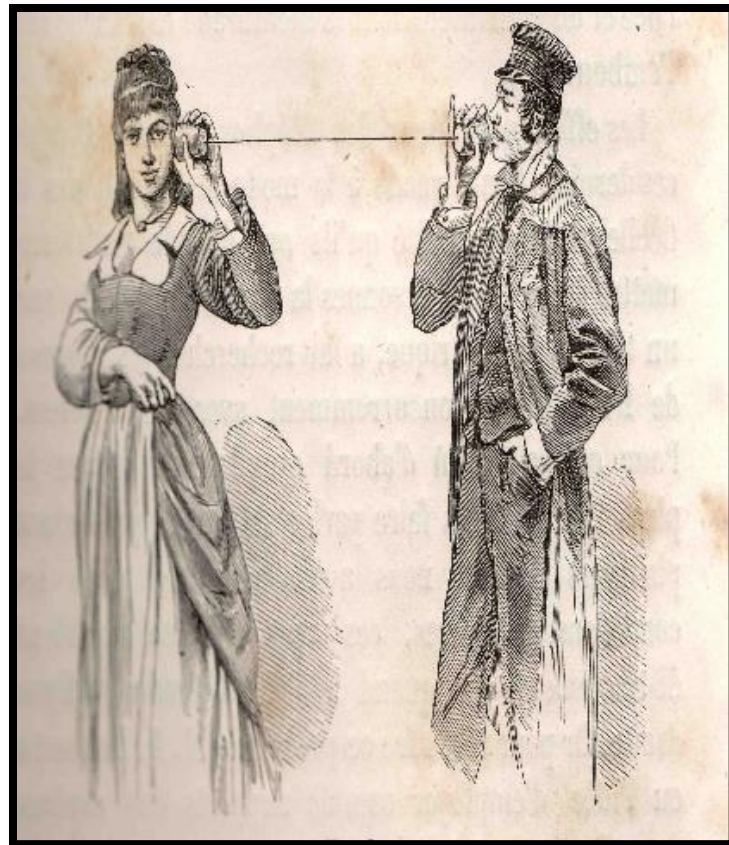


# #1 INTERACTION & COORDINATION

*“Honestly, professionally we’ve had virtually no interaction with other trainers.”*

## Key issues:

- How to overcome their isolation?
- Need for an annual meeting?
- Professionalization of training community? (Not all training is good)
- Appropriate training sequences?
- Navigating competition?



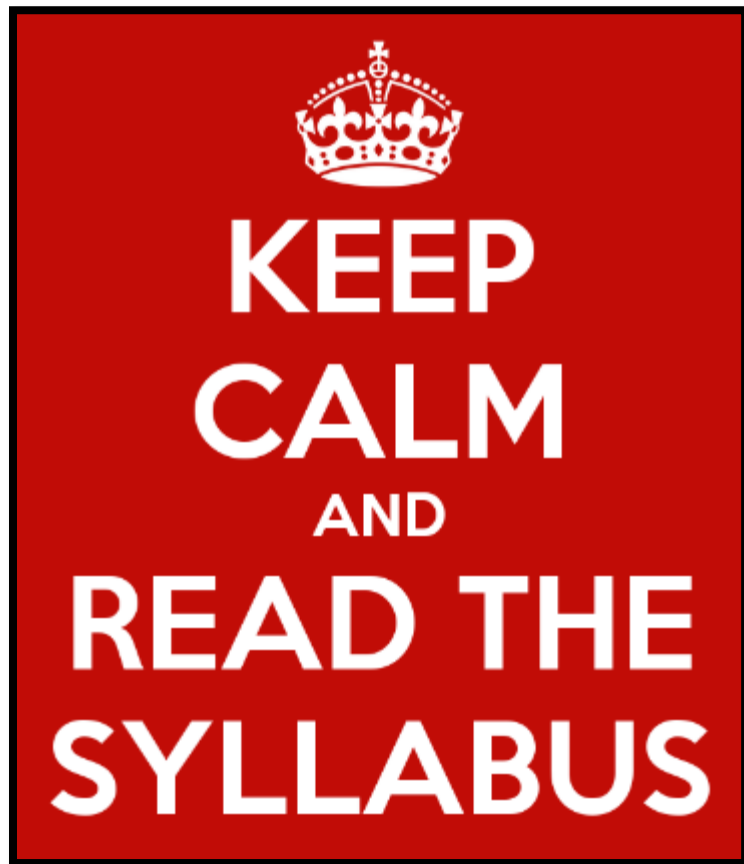


## #2 CURRICULA

*“As new programs come into being, let’s not reinvent the wheel every time.”*

### Key issues:

- Broaden curricula
- Synergize curricula
- Evaluate curricula
- Connect curricula to action







## #3 STRATEGY

Most training focuses on:

- Journalistic skills
  - Storytelling skills
  - Platform skills
- } **TACTICS**

Key issues:

- Macro-level context for modern scicomm?
- Communication designed to achieve specific goals?
- Tactics are not goals





## #4 TRAINEES

### Are commonly:

- Self-selecting
- Skew young
- Diverse in terms of field
- Not diverse in terms of culture/ethnicity

### Key issues:

- Normative Q: Should all scientists be trained?
- Pedagogical Q: Should STEM degree programs require communication coursework?
- Strategic Q: How can we find and support the most effective communicators for target stakeholders?



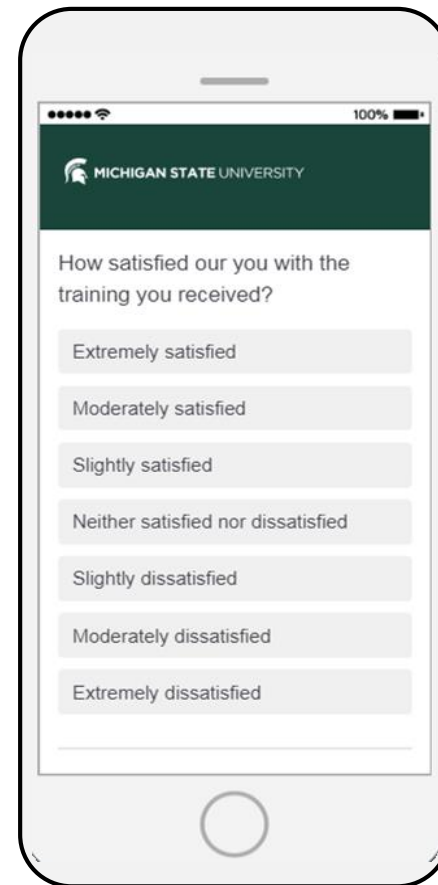


## #5 EVALUATION

*“It’s really hard because the people who fund us, the first question they ask is about evidence of impact and the last thing they fund is evaluation.”*

### Key issues:

- How to establish evidence-based best practices and evaluation techniques?
- How to scale them?
- How to enable sustainable researcher-practitioner relationships?





# HOW TO THINK ABOUT STRATEGY

what good communication looks like

## 1. Goals

- ▶ What do I want to accomplish? With whom?

## 2. Objectives

- ▶ What do I need to engage in my audiences to accomplish my goal?

## 3. Tactics

- ▶ What channels, messages, and procedures will allow me to have the desired effect?

## 4. Impacts

- ▶ How do I know if I've successfully met my goal?



# WHAT SCIENCE COMM OFTEN LOOKS LIKE

effectiveness is left to chance and is unlikely

## 1. Goals

What do I want to accomplish?

## 2. Objectives

- ▶ When can I explain something to someone or share compelling data?

## 3. Tactics

- ▶ What platform (hopefully a shiny, new technology) will allow me to share my science with someone?

## 4. Impacts

- ▶ How do I know if I've successfully met my goal?

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# THANK YOU

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# GOALS-OBJECTIVES-TACTICS MODEL

