

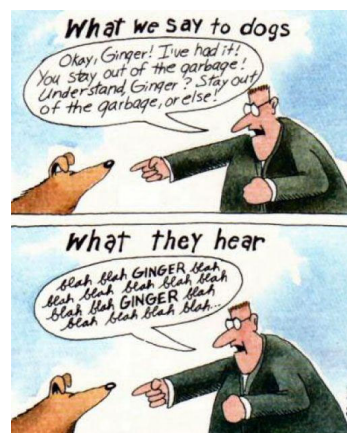
# Developing and Delivering Media Messages

March 1, 2019

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## Today's agenda

- Part 1
  - How science becomes a mainstream story
  - Current media landscape
  - Developing your message
    - Methods
    - Audience identification
    - Power of three
    - Identify, answer difficult questions
  - Writing exercise
- Part 2:
  - Tips for a successful interview
  - Practice



## The research

**Science** Home News Journals Topics Careers

SHARE REPORT

### Plastic waste associated with disease on coral reefs

Joleah B. Lamb<sup>1,2,3,\*</sup>, Bette L. Willis<sup>4,5</sup>, Evan A. Fiorenza<sup>1,4</sup>, Courtney S. Couch<sup>1,2,6</sup>, Robert Howard<sup>7</sup>, Douglas N. Rader<sup>8</sup>, ...  
+ See all authors and affiliations

Science 26 Jan 2018;  
Vol. 359, Issue 6374, pp. 460-462  
DOI: 10.1126/science.aar3320

Article Figures & Data Info & Metrics eLetters PDF

#### Corals wrapped in plastic

Coral reefs provide vital fisheries and coastal defense, and they urgently need protection from the damaging effects of plastic waste. Lamb *et al.* surveyed 159 coral reefs in the Asia-Pacific region. Billions of plastic items were entangled in the reefs. The more spiky the coral species, the more likely they were to snag plastic. Disease likelihood increased 20-fold once a coral was draped in plastic. Plastic debris stresses coral through light deprivation, toxin release, and anoxia, giving pathogens a foothold for invasion.

Science, this issue p. 460

#### Abstract

Plastic waste can promote microbial colonization by pathogens implicated in outbreaks of disease in the ocean. We assessed the influence of plastic waste on disease risk in 124,000 reef-building corals from 159 reefs in the Asia-Pacific region. The likelihood of disease increases from 4% to 89% when corals are in contact with plastic. Structurally complex corals

## The write-up

**CORNELL CHRONICLE**

Topics Campus & Community All Stories In the News Expert Quotes Ezra Magazine

### Oceanic plastic trash conveys disease to coral reefs

By Blaine Friedlander | January 25, 2018

Food & Agriculture Energy, Environment & Sustainability MEDIA INQUIRIES

For coral reefs, the threat of climate change and bleaching are bad enough. An international research group led by Cornell University has found that plastic trash – ubiquitous throughout the world’s oceans – intensifies disease for coral, adding to reef peril, according to a new study in the journal *Science*, Jan. 26.

Kathryn Berry/James Cook University  
An empty, plastic rice bag is nestled between corals.

“Plastic debris acts like a marine motor home for microbes,” said the study’s lead author, Joleah Lamb, a postdoctoral research fellow at Cornell. She began collecting this data as a doctoral candidate at James Cook University in Australia.

“Plastics make ideal vessels for colonizing microscopic organisms that could trigger disease if they come into contact with corals,” Lamb said. “Plastic items – commonly made of polypropylene, such as bottle caps and toothbrushes – have been shown to become heavily inhabited by bacteria

# The release

CORNELL UNIVERSITY MEDIA RELATIONS OFFICE  
FOR RELEASE: Jan. 25, 2018

Jeff Tyson  
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[jeff.tyson@cornell.edu](mailto:jeff.tyson@cornell.edu)

**Media note:** Images from researchers of plastic trash in the ocean can be viewed and downloaded at <https://cornell.box.com/s/un9vms5ie2zht7beel4f6l8l8m5ey>  
Video can be found at <https://cornell.box.com/s/7hh2o9e4tcbob4885df3p31lVv3k>.

**A 'marine motorhome for microbes': Oceanic plastic trash conveys disease to coral reefs**

ITHACA, N.Y. – For coral reefs, the threat of climate change and bleaching are bad enough. An international research group led by Cornell University has found that plastic trash – ubiquitous throughout the world's oceans – intensifies disease for coral, adding to reef peril, according to a new study in the journal *Science*.

"Plastic debris acts like a marine motorhome for microbes," said the study's lead author, Joleah Lamb, a postdoctoral research fellow at Cornell. She began collecting this data as a doctoral candidate at James Cook University in Australia.

"Plastics make ideal vessels for colonizing microscopic organisms that could trigger disease if they come into contact with corals," Lamb said. "Plastic items – commonly made of polypropylene, such as bottle caps and toothbrushes – have been shown to become heavily inhabited by bacteria. This is associated with the globally devastating group of coral diseases known as white syndromes."

When plastic debris meets coral, the authors say, the likelihood of disease increases from 4 to 89 percent – a 20-fold change. The scientists estimate that about 11.1 billion plastic items are entangled on reefs across the Asia-Pacific region, and that this will likely increase 40 percent over the next seven years.

Coral are tiny animals with living tissue that cling to and build upon one another to form "apartments," or reefs. Bacterial pathogens ride aboard the plastics, disturbing delicate coral tissues and their microbiome.

"What's troubling about coral disease is that once the coral tissue loss occurs, it's not coming back," said Lamb. "It's like getting gangrene on your foot and there is nothing you can do to stop it from affecting your whole body."

Lamb and colleagues surveyed 159 coral reefs from Indonesia, Australia, Myanmar and Thailand, visually examining nearly 125,000 reef-building corals for tissue loss and disease lesions. The number of plastic items varied widely, from 0.4 items per 100 square meters (about the size of a two-bedroom Manhattan flat), in Australia, to 25.6 items per 100 square meters in Indonesia. This is significant given that 4.8 to 12.7 million metric tons of plastic waste are estimated to enter the ocean in a single year, Lamb said.

The scientists forecast that by 2025, plastic going into the marine environment will increase to roughly 15.7 billion plastic items on coral reefs, which could lead to skeletal eroding band disease, white syndromes and black band disease.

"Our work shows that plastic pollution is killing corals. Our goal is to focus less on measuring things dying and more on finding solutions," said senior author Drew Harvell, professor of ecology and evolutionary biology. "While we can't stop the huge impact of global warming on coral health in the short term, this new work should drive policy toward reducing plastic pollution."

Coral reefs are productive habitats in the middle of nutrient-poor waters, Harvell said. Thanks to the symbiotic relationship between corals and their solar-powered algae, "this miracle of construction creates the foundation for the greatest biodiversity in our oceans," she said. "Corals are creating a habitat for other species, and reefs are critical to fisheries."

Said Lamb: "This study demonstrates that reductions in the amount of plastic waste entering the ocean will have direct benefits to coral reefs by reducing disease-associated mortality."

Funding was provided by the National Science Foundation, the National Oceanic and Atmospheric Administration, the Nature Conservancy, the Environmental Defense Fund, the World Bank, the Australian Research Council and Cornell's Atkinson Center for a Sustainable Future.

Cornell University has television, ISDN and dedicated Skype/Google+ Hangout studios available for media interviews. For additional information, see this [Cornell Chronicle story](#).

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# The coverage

**SCIENTIFIC AMERICAN**  
Where Plastic Goes, Coral Disease Follows  
An onslaught of bottles, bags and other litter makes reefs 20 times more likely to get sick. Scientists are scrambling to learn why.

**npr**  
Plastic Pollution Is Killing Coral Reefs, 4-Year Study Finds  
January 25, 2018 · 2:01 PM ET

**The Guardian** US edition  
Billions of pieces of plastic on coral reefs send disease soaring, research reveals  
A major new study estimates 11bn pieces of plastic contaminate vital reefs and result in infections: "It's like getting gangrene," scientists warn

**The Washington Post** Energy and Environment  
11 billion pieces of plastic are spreading disease across the world's coral reefs

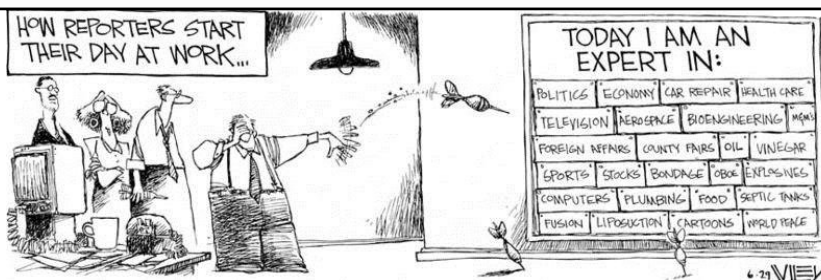
**Cornell CALS** @CornellCALs - Feb 8  
When plastic debris meets coral, the likelihood of disease increases 20X. With 11 billion pieces of plastic entangled on reefs across the Asia-Pacific region alone, that's bad news for coral and the ecosystems they make possible #Sustainability

**Ed Yong** @eddyong209  
I usually think of plastic pollution and coral reef deaths as two separate problems befalling the oceans. Turns out, they're very connected.

**11 Billion Pieces of Plastic Are Riddling Corals With Disease**  
In Asia-Pacific reefs, the majority of corals with junk on them have some kind of infection.  
theatlantic.com

3:30 PM - 25 Jan 2018  
321 Retweets 341 Likes

## Reporters are...



- Not evil
- Busy
- Generalist (exceptions)
- Looking for someone to answer questions
- Filling newscast/column with compelling, interesting stories
- More work, fewer people to do it
- Working with 24/7 deadlines
- Professional question askers

### Scientist

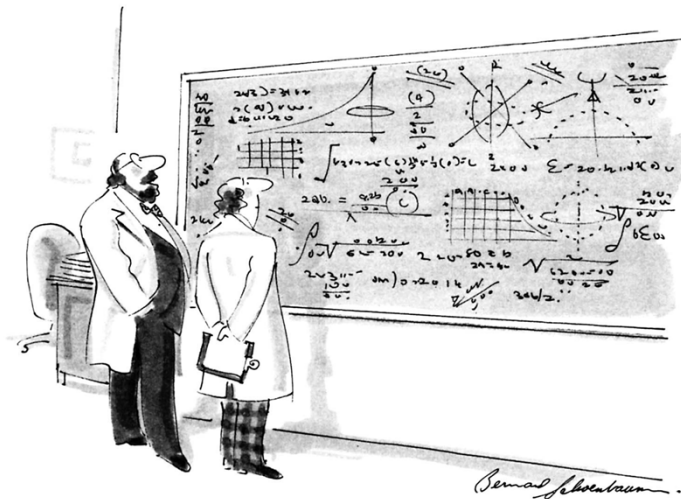
- Cumulative evidence
- In depth
- Uncertainty
- Credentials matter
- Rational
- Slow, ongoing

### Journalist

- Headline
- Quick overview
- Certainty
- Perspectives matter
- Emotional
- Driven by deadlines



## Developing *YOUR* message

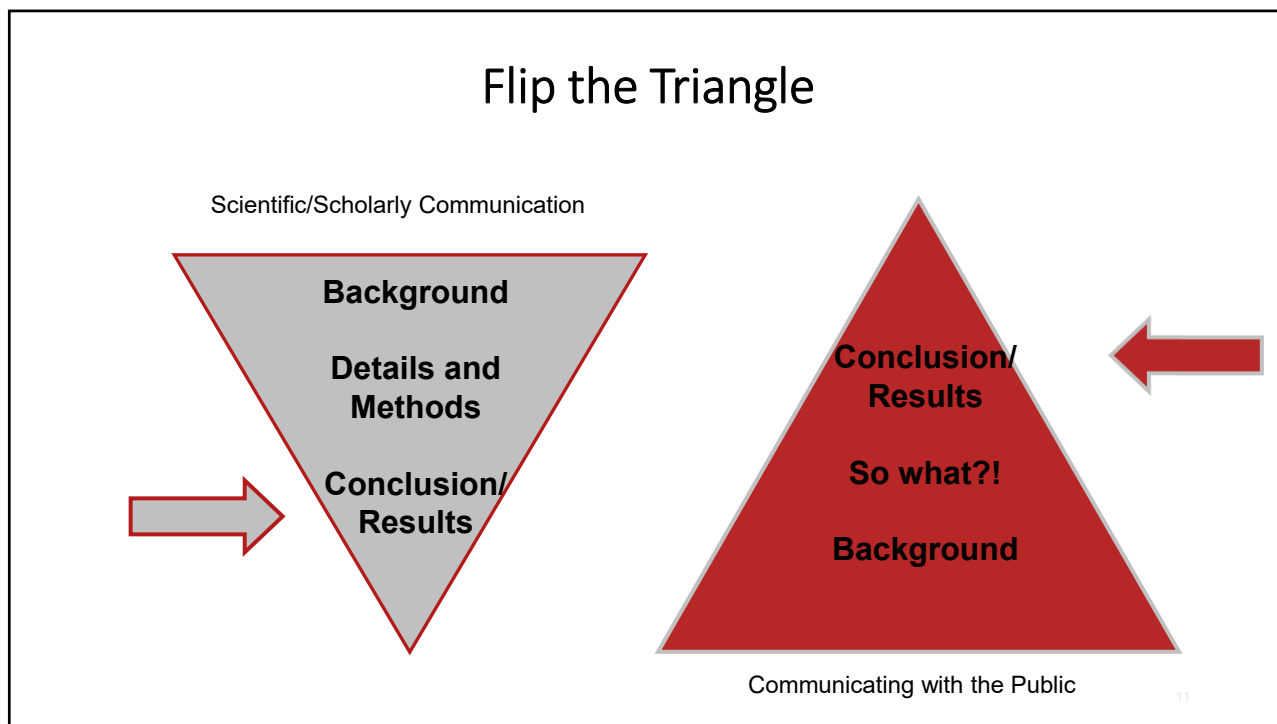


*"Oh, if only it were so simple."*

## What makes a good story in science?



- A new and surprising discovery
- Mystery
- Conflict or controversy
- Exploration and adventure
- Science/scientist to the rescue
- Just plain cool

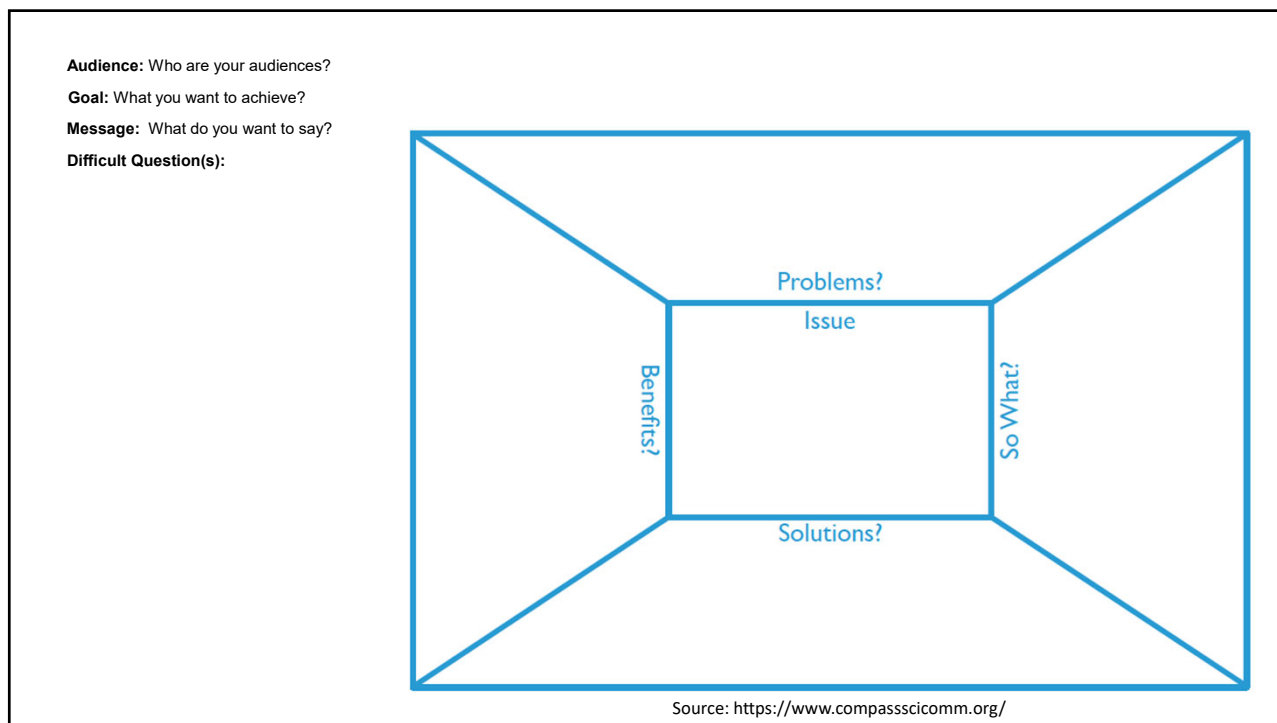
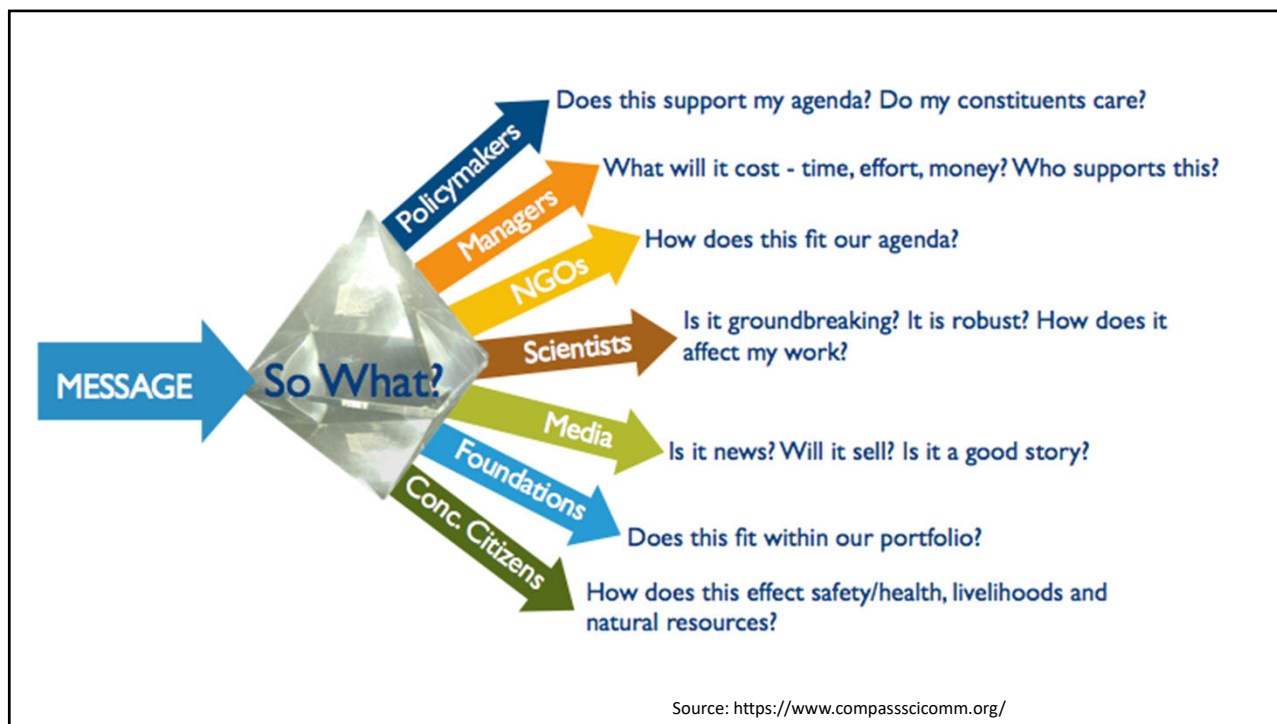


## Audience:

- Know your audience
  - What language, information, and ideas connect with your audience?
  - What do they know about this topic?
  - What do they read? Watch?
  - What is their age?
  - Where do they live?

A cartoon illustration of five people sitting in a living room, engaged in conversation. The scene includes a lamp, a coffee table with a teapot, and a decorative screen in the background. The cartoon is signed 'Smyth'.

*"I don't know why I don't care about the bottom of the ocean, but I don't."*



**Audience:** Who are your audiences?  
**Goal:** What you want to achieve?  
**Message:** What do you want to say?  
**Difficult Question(s):**

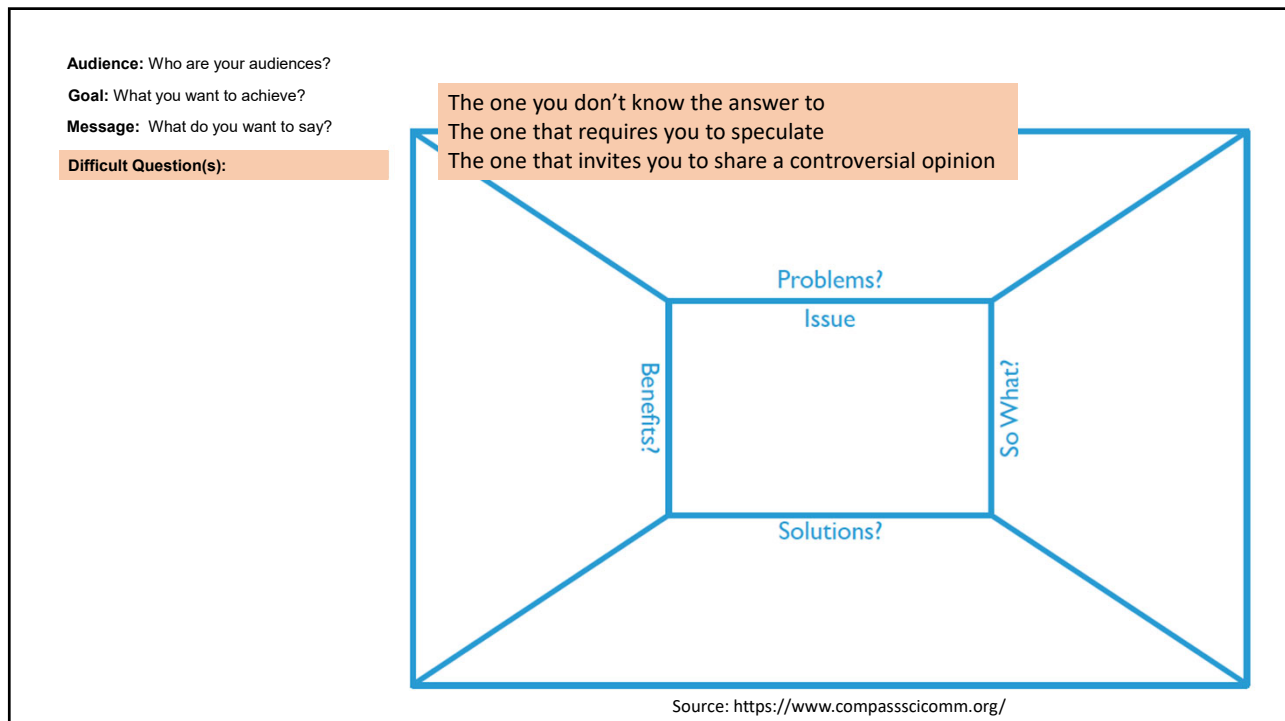
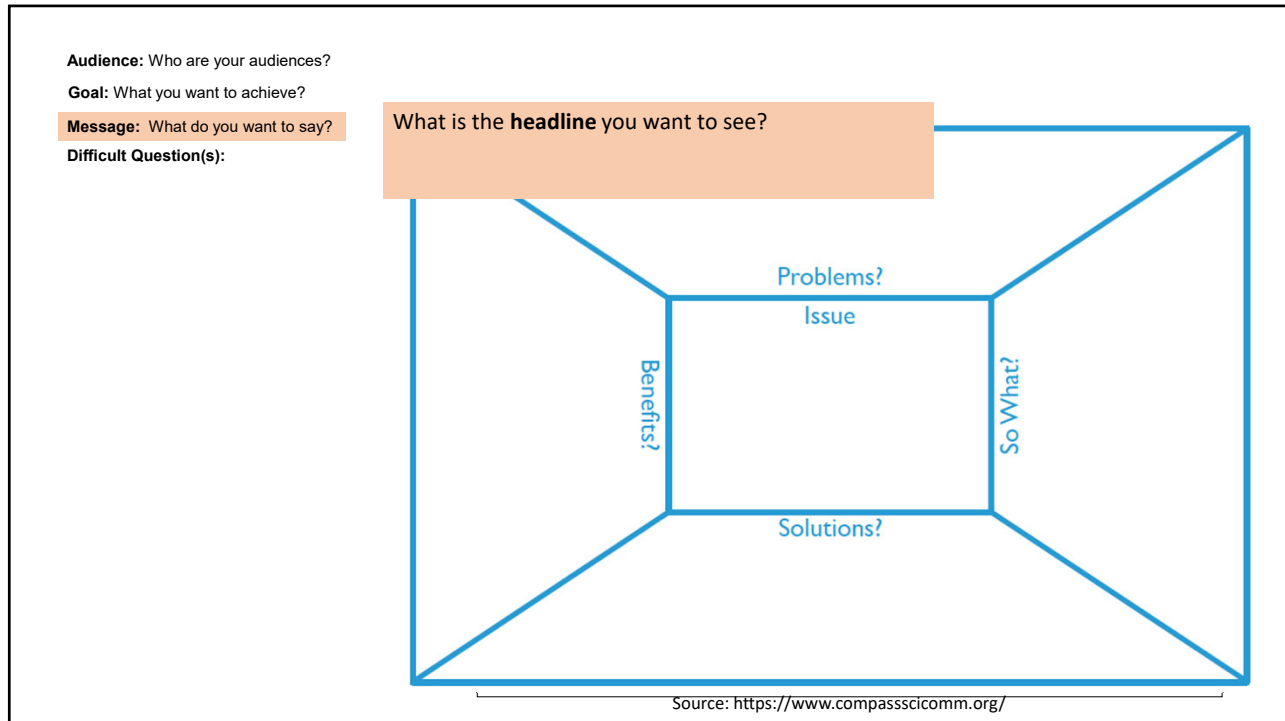
Source: <https://www.compasscicomm.org/>

**Audience:** Who are your audiences?  
**Goal:** What you want to achieve?  
**Message:** What do you want to say?  
**Difficult Question(s):**

What do you want the audience to *think, feel, do* or say as a result of the interview?

Source: <https://www.compasscicomm.org/>





Very often when scientists complain about the way their stories were covered, [it's because] they've not delivered any message and left the journalists to think up one for themselves.

- *Natasha Loder*  
*The Economist*



## Key messages

**3** is the magic number

**Structure: Problem, solution, benefit**

**Make sure your message is**

- Truth
- Concise
- Your area of expertise

## Sample methods

**Audience:** Who are your audiences?

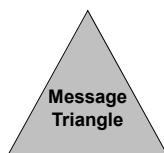
**Goal:** What you want to achieve?

**Message:** What do you want to say?

**Difficult Question(s):**

**Talking Point:**

- Detail:
- Detail:
- Detail:
- Example/Enhancer:

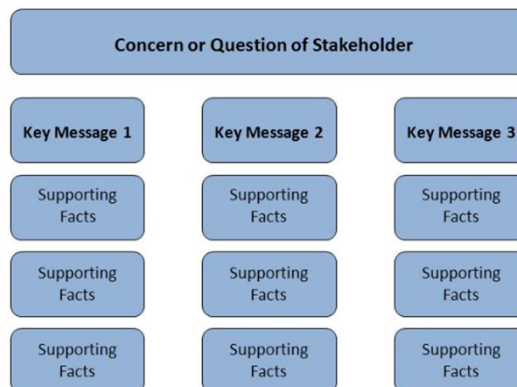


**Talking Point:**

- Detail:
- Detail:
- Detail:
- Example/Enhancer:

**Talking Point:**

- Detail:
- Detail:
- Detail:
- Example/Enhancer:



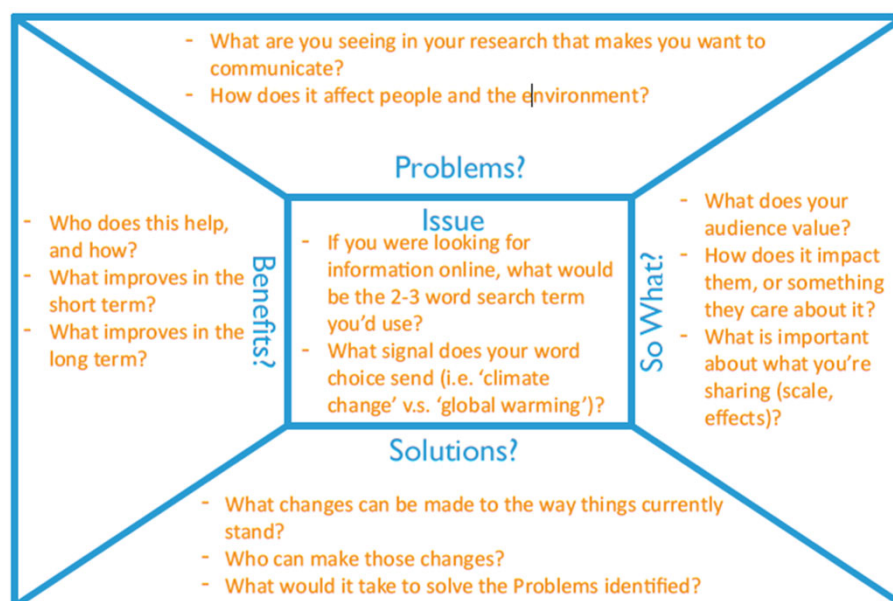
## Details, details, details

- Be specific
- Avoid jargon
- Give examples
- Analogies: Simplify complex ideas
- Personal Experience/Story of the Quest



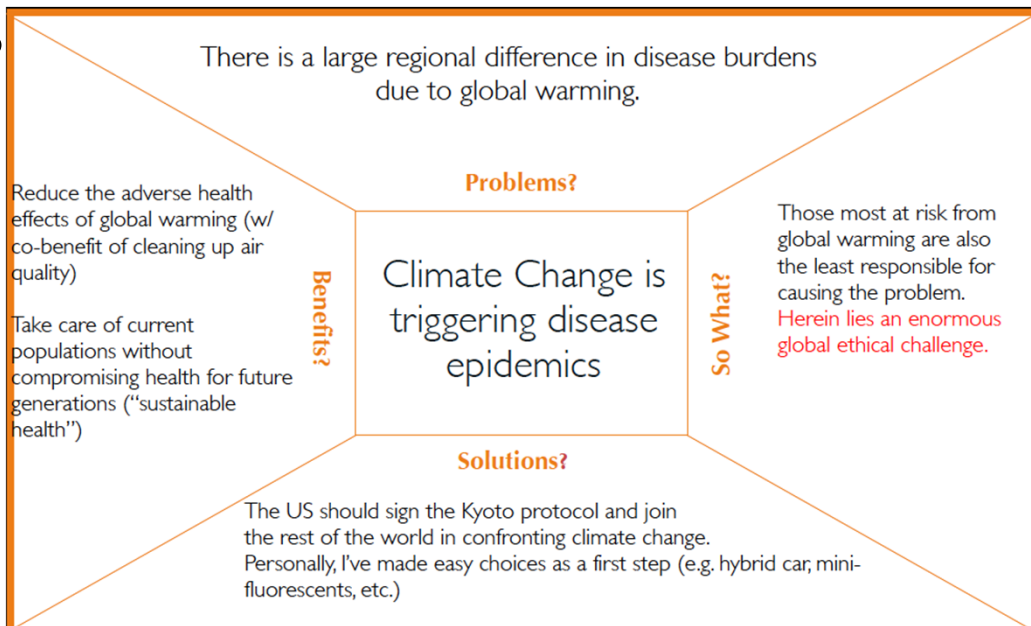
## What would you rather listen to?

- Even in the simplest system of particles suspended in a liquid, scientists are still debating the mechanism for shear thickening.
- Ever play with Oobleck? That weird, gooey stuff that miraculously turns hard? I loved playing with it as a kid, and I wanted to figure out how fluids like Oobleck can go from liquid to solid in the blink of an eye.



Source: <https://www.compassccomm.org/>

## EXAMPLE: COMPASS

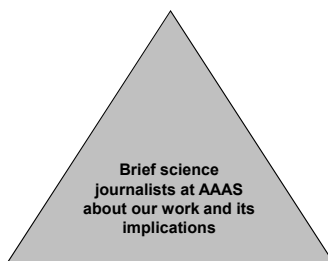


## EXAMPLE: Message Triangle

**Audience:** Attendees at American Association for the Advancement of Science panel  
**Goal:** Brief science journalists about new findings in a long-term research project and its implications  
**Message:** We study seminal proteins of fruit flies, which have dramatic influences on females, but only if female agrees to dance.  
**Difficult questions:** Are you going to release genetically modified insects? Can the same techniques be applied to humans?

### Reproduction is more than a sperm fertilizing an egg:

- Sperm are accompanied by a cocktail of seminal proteins
- Female is different creature after mating
- Why *Drosophila*? Because sex is complicated.
- Interactions are "up close and personal," unlike broadcast pheromones



### Mating is both a battle and a ballet:

- Battle between males: seminal proteins are a "weapon" that makes females reluctant to mate with other males
- Battle between male and female: What is good for the gander may not be good for the goose
- Ballet between male and female: male protein is processed only in female

### More than an interesting question about chemical communication in *Drosophila*:

- Interactions in *Drosophila* are analogous to Mosquito, including those that carry diseases like West Nile virus and Dengue fever
- Millions of humans are affected by WNV and Dengue, and there are no vaccines for either
- One way to address spread of disease is to impede ability of insect vectors to reproduce

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When a reporter calls...



## Questions to ask the reporter

- Name?
- Outlet/Organization?
- What is the story about?
- Do you have any background in the subject?
- Who else will you interview?
- What is the format of the interview?
- How long is the interview?
- What is your deadline?
  
- ***Can I call you right back?***
  - ***Research reporter and outlet***
  - ***Should you do the interview?***



## Interview Tips

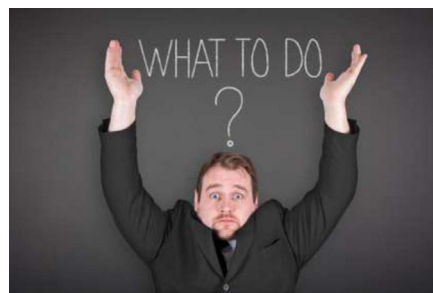
- You're in the driver's seat
- *Everything* you say is reportable
- Anticipate questions
- Avoid jargon
- Know your talking points, practice speaking in concise phrases
- Don't be afraid to repeat your message
- Do not assume that the reporter knows your topic
- Develop a one-page summary or fact sheet
- Record your interview



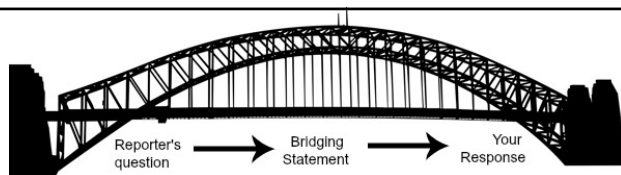
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## Handling tough questions

- Don't lose sight of the audience
- Don't argue with reporter
- Be politely assertive, correct errors
- Never say "No Comment"
- Body language
- Keep calm and talk slowly
- Learn and practice transition techniques
- Remember everything is on the record
- Stick to your message!



## Transition techniques



### Bridging

- Answer question briefly
- Follow up with key message
  - “Yes... and in addition to that...”
  - “I can’t speak to that, but what I can tell you is...”

### Flagging

- Highlights most important part
  - “The most critical point to remember is...”
  - “Just follow these tips...”

## Dress for success

- Dress:
  - No white
  - No patterns, including herringbone, stripes
  - Best choices: dark or neutral shades
  - Conservative jewelry
- Say “yes” to make-up
  - Keep it light, natural-looking





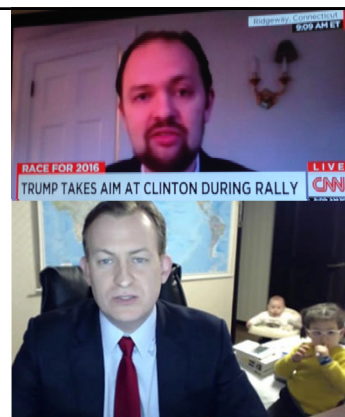
## Techniques for on-air interviews

- Smile
- Look at reporter or wherever they tell you to
- Pay attention to nonverbal
- Plant yourself, no movement/swivel
- Use natural gestures
- If sitting, lean toward camera
- Voice: expressive, animated, steady speed
- Enunciate



## Techniques for Skype/Google+/Zoom

1. Do you have high-speed internet?
2. Test, update technology before the interview
3. Look at the camera, not the screen
4. Camera should be at eye level
5. Natural lighting
6. Dress the part
7. Prepare your surroundings
8. Close/turn off distractions



## Techniques for radio

1. Close/turn off distractions
2. Smile
3. Stand or sit at attention
4. Use your hands



## Practice Interviews

- Create groups; assign roles
  - Interviewer
  - Interviewee
  - Camera Operator
  - Reviewer/critic
  - Observer/Timekeeper
- Conduct **two**-minute interviews
- Evaluate (see next slide)
- Switch roles until all participants have been interviewed

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## Tips for Evaluation

- Did I get my message across?
- What did I forget to mention?
- How could I have better incorporated my talking points into my answers?
- Did I use my talking points when replying to difficult questions?
- Was I relaxed, calm, and natural?
- What can I do to be more effective?

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## “Best of” Interviews

- Each group selects its “best” interview
  - It may be the most successful
  - Or, it can be an example of a “lesson learned”
- Each group shares their interview with the class
- Review and provide feedback
- Wrap up and final questions

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