

# COMMUNICATING SCIENCE, CREATING TRUST

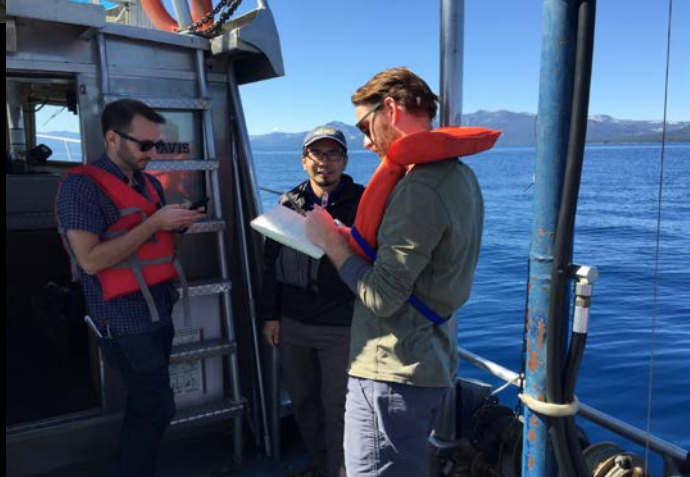
CAN YOU TAKE A MESSAGE?

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**UCDAVIS**

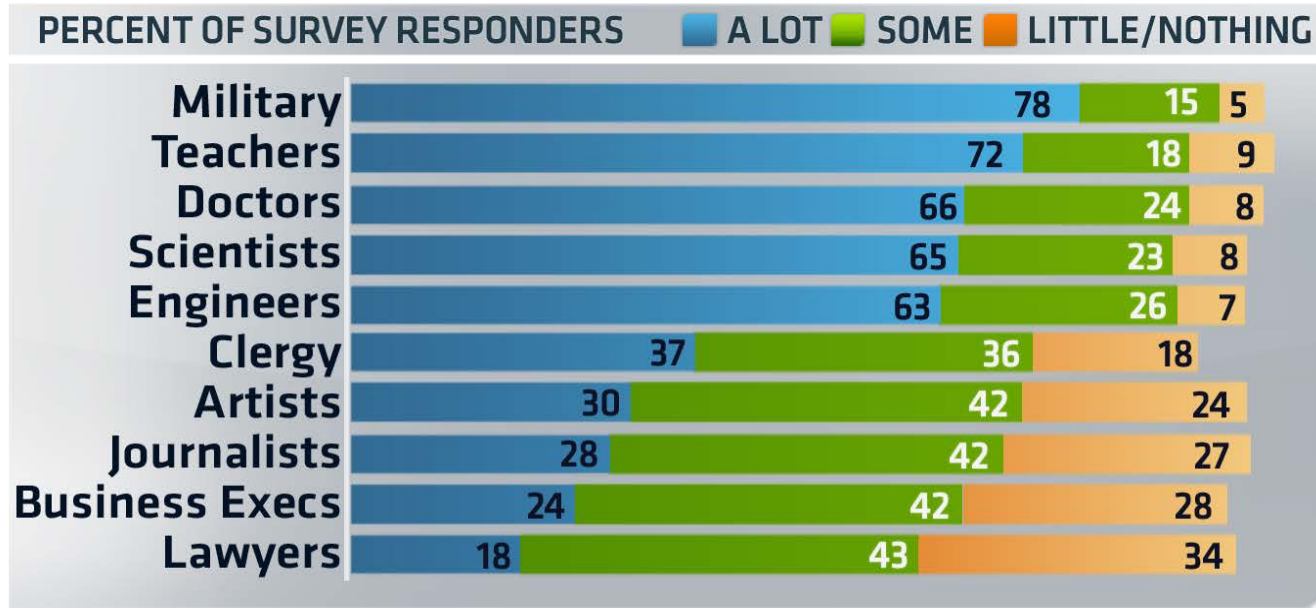
# ABOUT ME

## Connecting scientists with journalists



# SCIENTISTS ARE FAIRLY WELL TRUSTED

## Job contributions to society



Pew Research Center

# BARRIERS TO TRUST

**How is the science being communicated?**



*John Oliver*  
*Last Week Tonight*





What did you see?



# CRAFT YOUR MESSAGE

**Your message is your anchor**

Ask yourself:

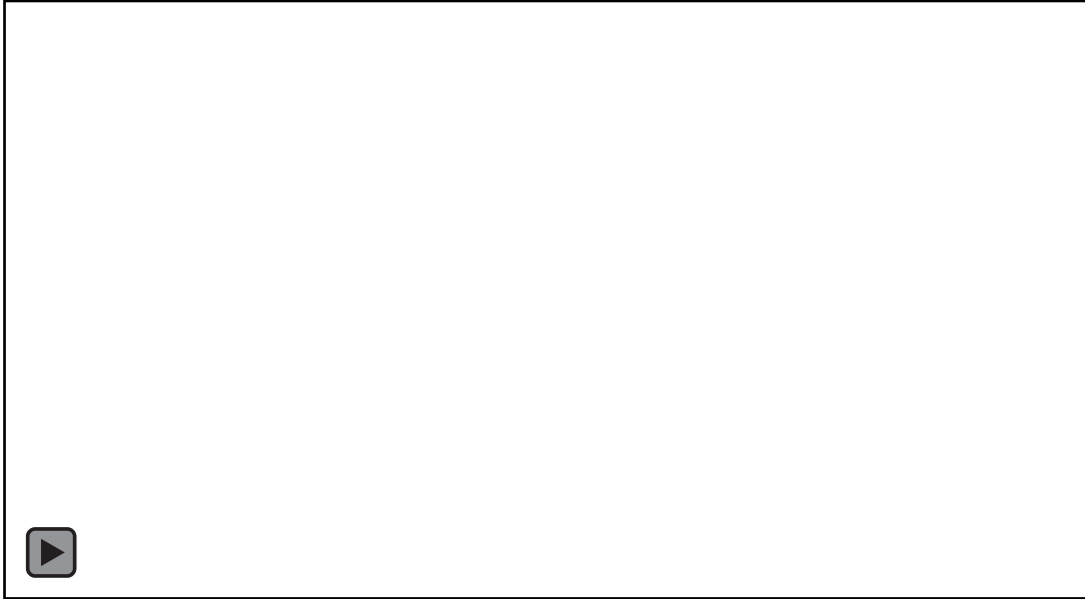
- What is the main **ISSUE**?
- Key **PROBLEMS** related to that issue?
- Possible **SOLUTIONS**?
- **BENEFITS** to resolving the problem?

And last but not least ...



# SO WHAT?

**Why should anyone care?**

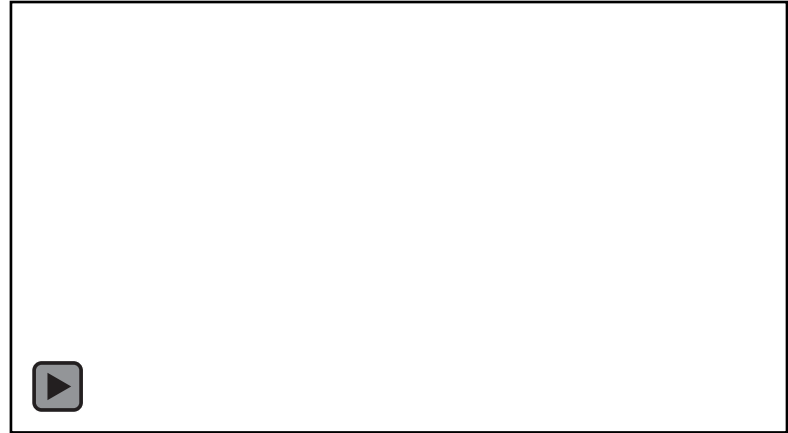




# SAVING WHITE ABALONE

## An example

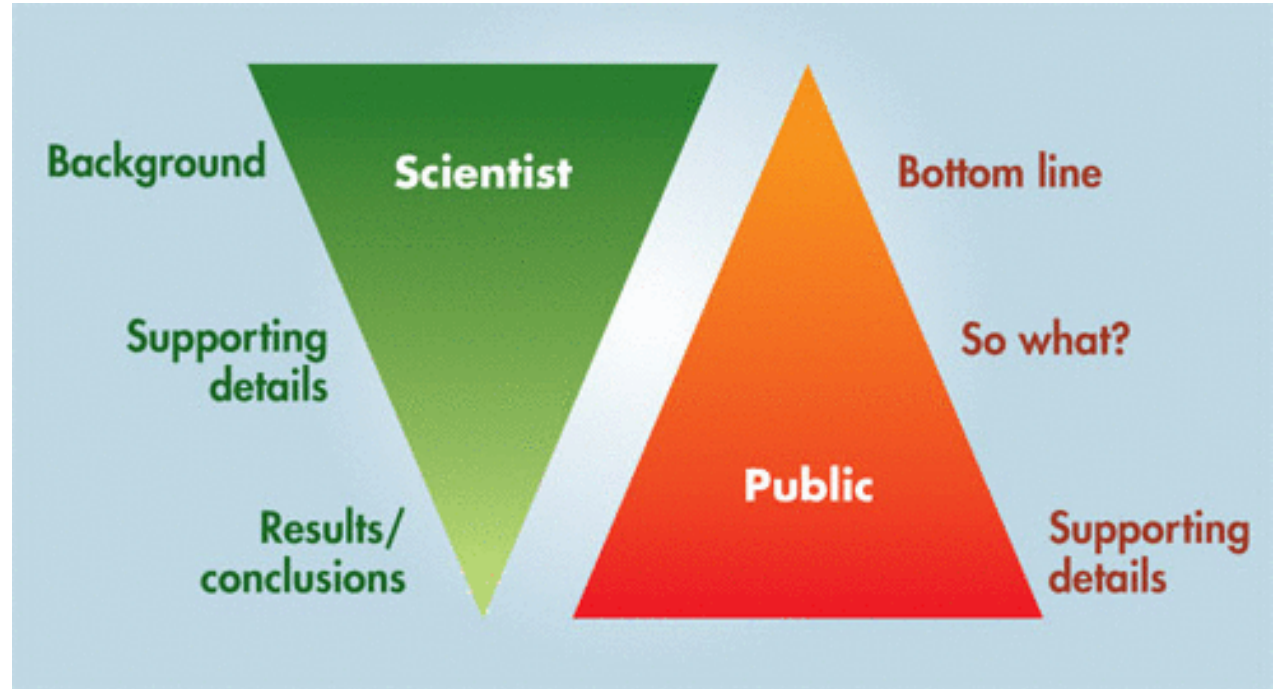
- Main ISSUE?
  - Ex: White abalone nearing extinction
- Key PROBLEM?
  - White abalone no longer reproduce in the wild due to overfishing.
- Possible SOLUTION?
  - Successful captive breeding program
- BENEFITS to resolving problem?
  - Eventual reintroduction to the wild
- SO WHAT?
  - Captive breeding program at UC Davis may be white abalone's last chance at avoiding extinction.



# INVERTED PYRAMID

## Flipping the research paper

More WHAT  
Less WHY



# BE CLEAR...

## Or Be Misunderstood

I know that you believe you understand what you think I said, but I'm not sure you realize that what you heard is not what I meant.

- Robert McCloskey

# JARGON

## Precision or Jibberish?

Scientific term	Public meaning	Better choice
Positive trend	good trend	upward trends
Scheme	devious plot	systematic plan
Salmonid	HUH?	Ex: salmon, trout
Bivalve	HUH?	Ex: Clam, oyster, scallop

# “BUT MY PEERS WILL THINK I’M DUMB!”

**Remember your audience**

The translation will come.  
Let it come from YOU first.



# CLEAR IS CREDIBLE

## Stanford study: Jargon, Fraud and Scientific Papers

“We believe the underlying idea behind obfuscation is to muddle the truth.”

— David Markowitz, Stanford

“Fraudulent papers had about 60 more jargon-like words per paper compared to unretracted papers. This is a non-trivial amount.”

— D. Markowitz



“Fraudulent papers had about 60 more jargon-like words per paper compared to unretracted papers,” says David Markowitz. “This is a non-trivial amount.” (Credit: [KaruFlickr](#))

COMMUNICATION | STANFORD UNIVERSITY

### Studies full of jargon flag scientists as liars

Posted by Bjorn Carey-Stanford | November 17th, 2015

# BE KIND

**Scientists are more afraid of each other than of general public**

Support  
each other



# SEARCH FOR CLARITY

## “Ecosystem services” vs. “Nature’s benefits”



of people in 2010 Nature Conservancy national survey understood “ecosystem services” and believed it was a useful term.

“Finding a simple explanation with a vivid metaphor will be one of the first steps in communicating the complexity of conservation issues.”

– “Ecosystem-What? Public Understanding and Trust in Conservation Sciences and Ecosystem Services,”  
*Frontiers in Communication*, The Nature Conservancy

# USE ANALOGIES

## Overflowing plastic/Overflowing tub

“As a parent, I have often filled the bathtub for my kids. Imagine doing this and getting distracted, then returning just as the tub begins overflowing. What do you do first? More than likely you would not start mopping and cleaning up the floor – you would **turn off the faucet to stop the flow**, and then address the clean-up. ... Thus it is with plastic in the ocean.”

-- Jenna Jambeck, University of Georgia,  
Senate testimony and media reports



# Secondhand Smog

takepart

BIG ISSUES

ENVIRONMENT

FOOD

SOCIAL JUSTICE

CULTURE

BUSINESS

TAKE ACTION

## Forget Secondhand Smoke—Start Worrying About Secondhand Smog

Researchers discover that 10 percent of the harmful ozone in California's polluted San Joaquin Valley comes from Chinese coal plants.



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HEALTH NEWS | Tue Mar 31, 2015 | 6:24pm EDT

## California getting 'second-hand smog' from Asia, researchers say

h&N Here & Now



05:05

## Asia's Ozone Pollution Travels To California

A new study from the University of California, Davis, shows that approximately 10 percent of California's Central Valley air pollution comes from outside the state - specifically from Asia.

Scientists found this "secondhand smog" by analyzing the pollution and identifying particles consisting of Asian dust and heavy metals from power plants.

The Japan Times  
DAILY NEWS  
FAST COMPANY



# LOVE & SCIENCE

## Three stages: Attraction, infatuation, commitment

The public is on a blind date with science – make them fall in love with science.

-- Alan Alda, actor, professor at  
Alan Alda Center for Communicating Science



# SHARE YOUR ENTHUSIASM!

BE

Real

Personable

Relatable

Passionate

Funny



# KNOW YOUR MESSAGE

- Know your message.
- Clear messages build trust and understanding.
- Understanding and trust is needed if want decisions based on sound science.

# QUESTIONS?

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