STRATEGIC ENVIRONMENTAL COMMUNICATION & MEDIA
Why science communication?
Science may have a seat at the table, but it isn’t always heard.

We must understand the context in which our messages propagate.

Is there a “formula” for effective communication?
BASIC CHALLENGES

Distant in time and space.
Usually not personally relevant.
Uncertainty is tough to explain.
Not everyone cares about the environment.
Science has become politicized.
Pattern recognition is a challenge.
CONTEXTUAL CHALLENGES

Assessment of Factual Knowledge:
• The sun revolves around the earth: 24%
• Continents do not drift: 18%
• Antibiotics kill viruses: 45%
• Humans did not evolve from other species: 51%

Rather stable since 1992
The Deficit Model

... debunked!

Instead:
- Personal ideologies & values
- Group identification
- Social networks & influence
- Narrative & emotion
WHAT WORKS...

Clear goal and purpose
Know your audience
Make your message personally meaningful
Avoid fear appeals
Don’t overuse hope!
Problems + effective solutions
Avoid jargon
Group membership considerations
Narrative structures
Humanize it!
Make it visual
Data Visualization
New York City carbon emissions, 2010  
54 million metric tons $CO_2$
RISE OF THE MEME + GIFS

THE GOOD THING ABOUT SCIENCE IS ITS TRUE
WHETHER YOU BELIEVE IN IT OR NOT.

BRO,
DO YOU EVEN SCIENCE?

It’s science.
HISTORICAL DATA

Global temperature change (1850–2016)

Ed Hawkin, PhD
Climate Lab Book
2016

@ed_hawkins
HadCRUT4
Pre-attentive features
COLOR CHOICE IS KEY

Sanford & Selnick (2012)
Gestalt Principles
For Design
GESTALT TIPS

proximity

similarity

closure
GESTALT TIPS

continuity
GESTALT TIPS

connectedness
SIMPLICITY & CLARITY
It’s Not Your Imagination. Summers Are Getting Hotter.

By NADJA POPOVICH and ADAM PEARCE  JULY 28, 2017
MULTIPLE VISUAL CUES

Grainger et al (2016)
Free Willy and Flipper by the Numbers

By Amber Thomas

The past, present, and future of captive whales and dolphins according to data and pop culture.
And at the time, this wasn’t shocking. We knew almost nothing about these animals, and often they were considered a nuisance. If you’re finding this hard to believe, check out this scene from the 1963 version of Flipper.
The remaining new admissions were all rescued animals, like Winter, the fluke-less dolphin featured in the 2011 film “Dolphin Tale”.

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Reveal nuance & complexity slowly
275 California drought maps show deep drought and recovery

By Kyle Kim and Thomas Suh Lauder
Contact Reporters

APRIL 7, 2017
USER-CENTERED DESIGN

Plan
Define user requirement & analyze competition

Design
Design wireframes, interaction sequences & navigation

Prototype
Develop & test dynamic prototypes for usability

Review
Review wireframe designs with customer
Thank you!