

The challenges of communicating science and expert information in a 'post-factual' world

Anuschka Miller
17th January 2017





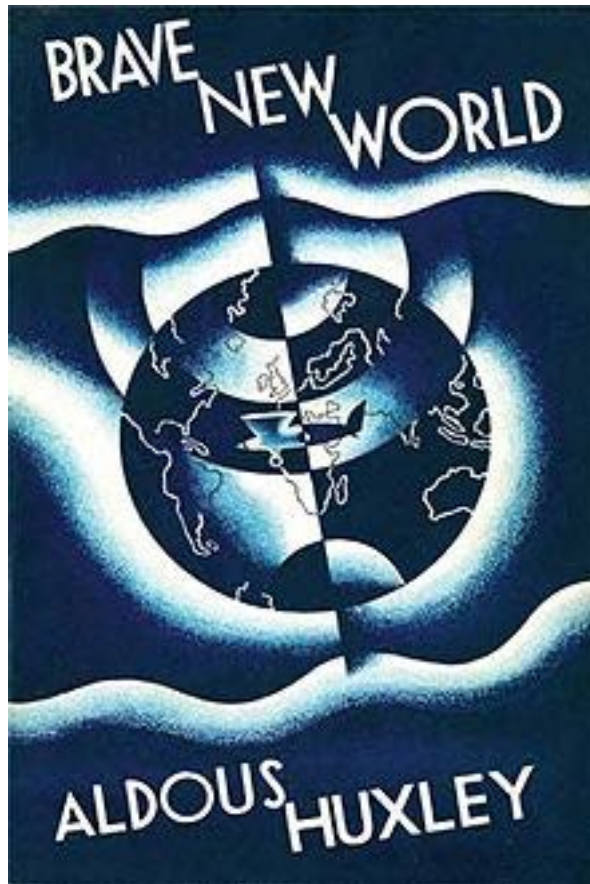
2017 – A BRAVE NEW WORLD?

1. What's new?
2. Can you trust a scientist?
3. Public awareness of ocean issues
4. Our bulging comms tools box

TIME TO MAKE CHOICES

5. Whose job is it?
6. Let's 'come out'
7. Are we talking with all tribes?
8. Doom and gloom?
9. How multi-lingual are we?
10. David or Goliath

Brave New World ~ Post-Factual?



Mass production

Distraction by non-stop trivia

Divided society 'caste system'

Social conditioning / indoctrination

Hedonistic nihilism

Controlled by Alpha government

1. What's new?

Philosophy / power

- ✗ Fake news
- ✗ Populism & propaganda
- ✗ Bad science
- ✗ Relativism
- ✗ Fast change
- ✗ Irrational decisions
- ✗ Tribalism / division
- ✗ Conflict thinker – politician?
- ✗ Shift in power validator?

2017

Technology

- ✓ Proliferation of communication
- ✓ Immediacy & constancy
- ✓ Pervasiveness of social media
- ✓ Image excess



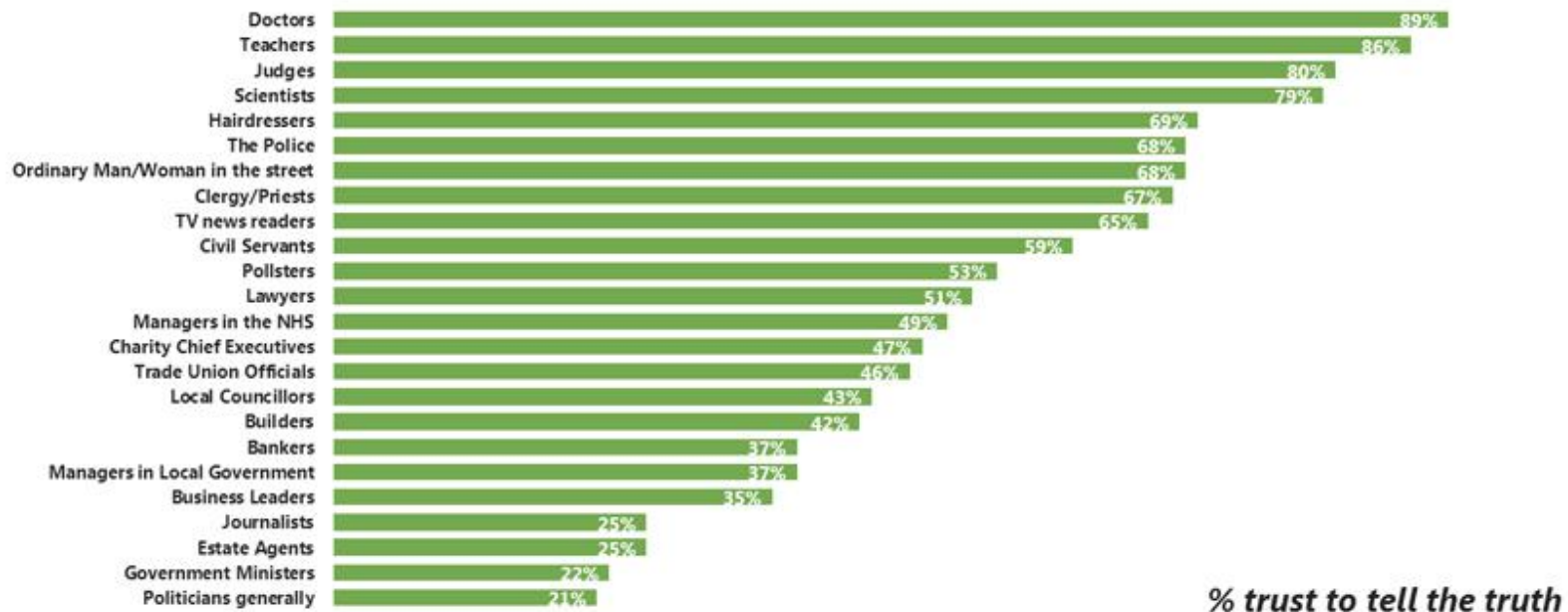
2. Can you trust a scientist? (Does Gove have a point?)

- Truth bearers?
- State of academic freedom?
- Driver: Message? Funding ? Self-promotion?
- Impact ~ industry relevance ~ £££
- Project vs context comms
- Peer review = established views
- Corporate communication
- Establishment? Corporate world?

Have people *had enough of experts* (does that mean scientists)?

Veracity Index 2015 – all professions overview

"Now I will read you a list of different types of people. For each would you tell me if you generally trust them to tell the truth, or not?"





BLIND trust?!



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Author: <http://commons.wikimedia.org/wiki/File:Trust>

- 85% want experts involved in policy decisions
- 83% want evidence to be used by politicians
- 12% seek out science info actively
- 27% avoid science info
- 52% open to science but don't seek it out
- Low level of engagement

Trust yes; Understanding no; Interest limited ???



NASA has more Twitter followers than Trump



3. Public awareness of ocean issues

More coastal development

More blue growth

More marine hobbies

More seafood

More awareness

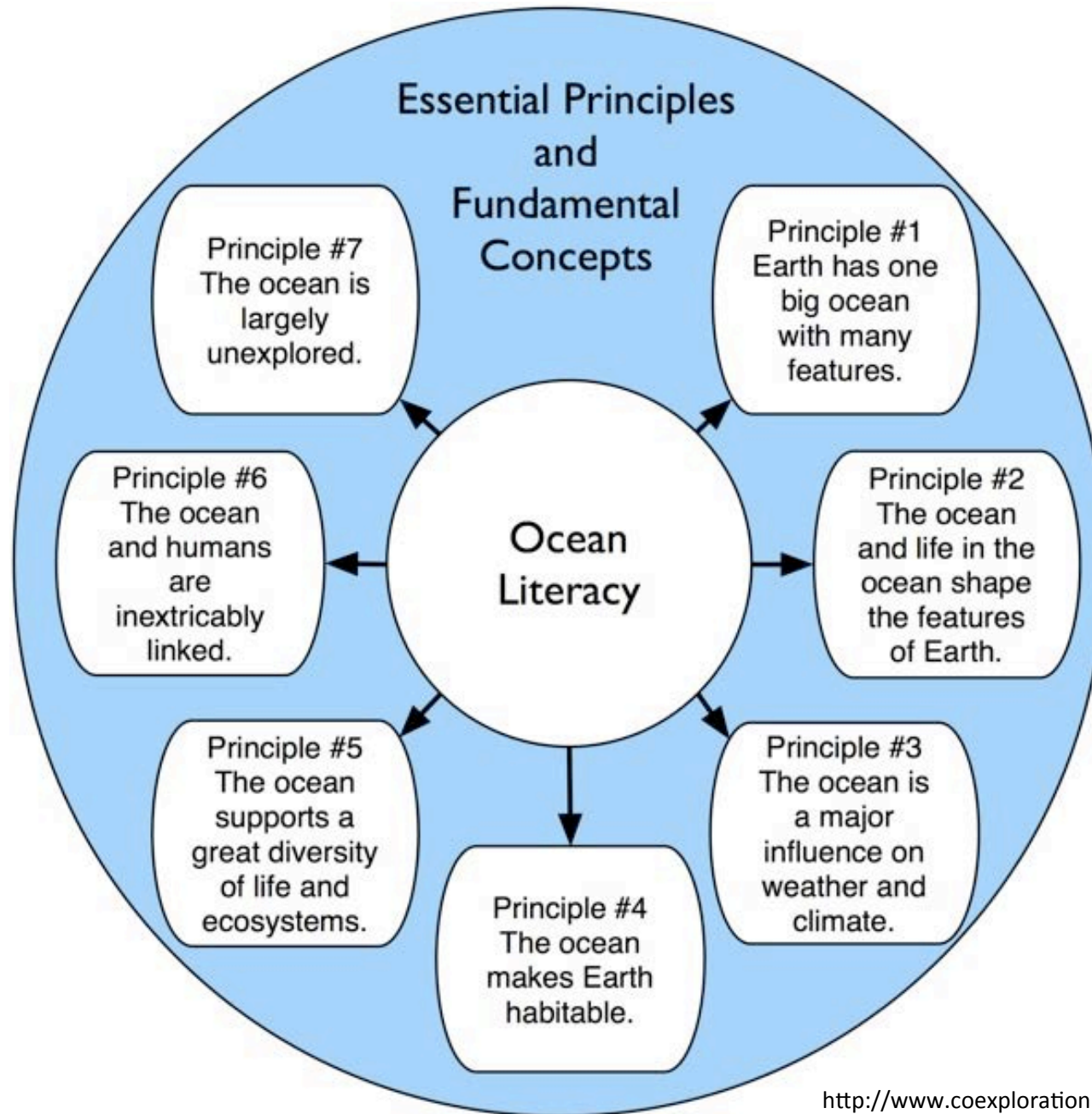
More interest

More coverage

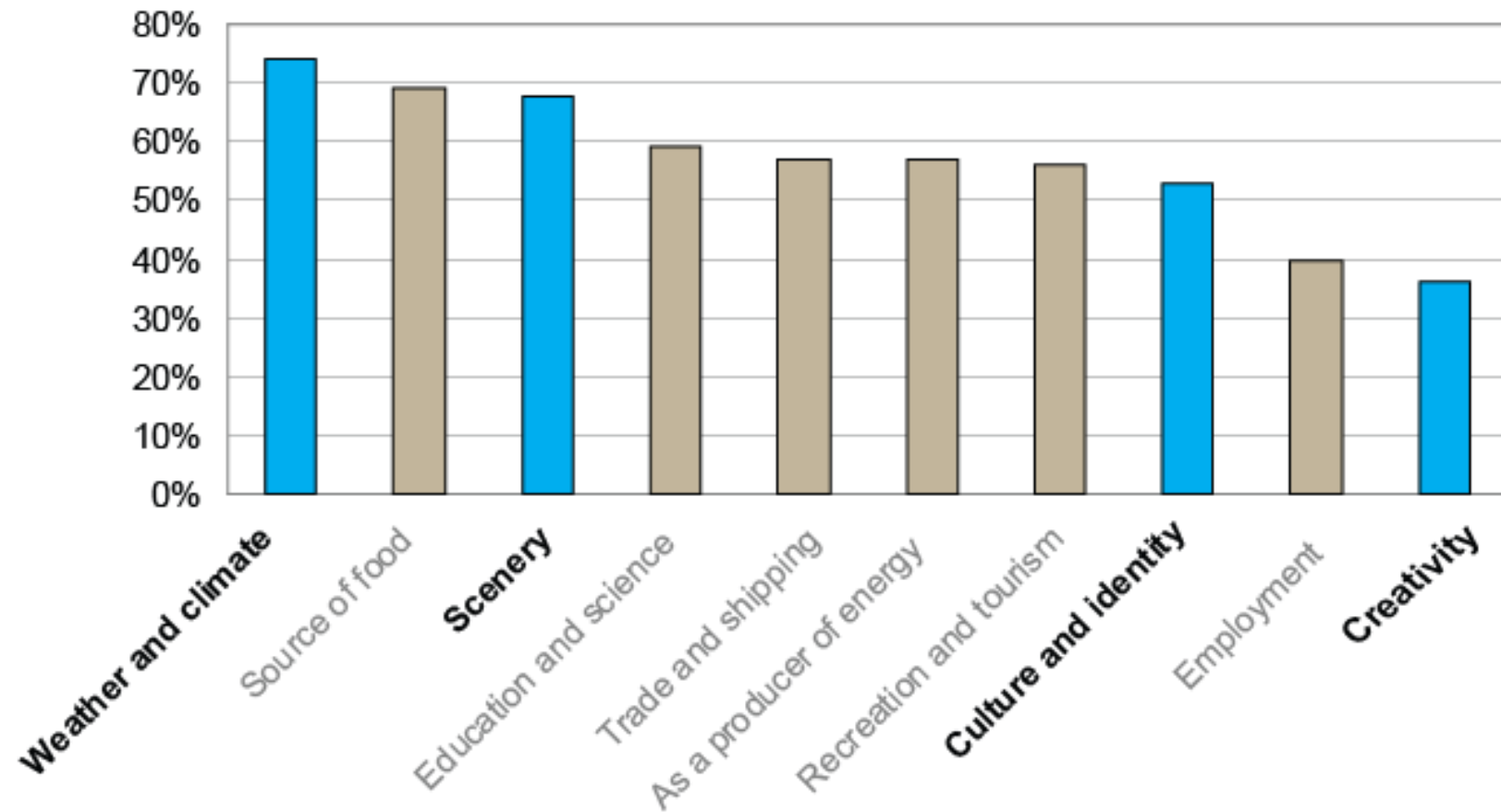
... more problems!



Artwork: What lies under – Ferdi Rizkiyanto, 2011



HOW IMPORTANT IS THE OCEAN TO YOU IN EACH OF THE FOLLOWING WAYS?



4. Our bulging sci comms tool box





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TIME TO MAKE CHOICES




5. Whose job is it?
6. Let's 'come out'
7. Are we talking with all tribes?
8. Do we focus on 'doom and gloom'?
9. How multi-lingual are we?
10. David or Goliath

5. Whose job is it?



Photos: Wikipedia

6. Let's 'come out'




COFFEE HOUSE MAGAZINE WRITERS BOOKS & ARTS PODCASTS


FEATURES

Ocean acidification: yet another wobbly pillar of climate alarmism

A paper review suggests many studies are flawed, and the effect may not be negative even if it's real

James Delingpole





“..marine life has nothing whatsoever to fear from ocean acidification...”

Given all this, you might well ask why our learned institutions, government departments and media outlets have put so much effort into pretending otherwise. Why, between 2009 and 2014, did Defra spend a whopping £12.5 million on an ocean acidification research programme when the issue could have been resolved, for next to nothing, after a few hours' basic research?



Take the time and effort to correct misinformation

Scientists should challenge online falsehoods and inaccuracies — and harness the collective power of the Internet to fight back, argues [Phil Williamson](#).

06 December 2016



PDF



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With the election of Donald Trump, his appointment of advisers who are on record as dismissing scientific evidence, and the emboldening of deniers on everything from climate change to vaccinations, the amount of nonsense written about science on the Internet (and elsewhere) seems set to rise. So what are we, as scientists, to do?

Referred complaint to UK Independent Press Standard Organisation (ISPO)

THE

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DELINGPOLE: HOW I TOTALLY CRUSHED THE OCEAN ACIDIFICATION ALARMIST LOONS

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0

TWEET

by JAMES DELINGPOLE | 9 Jan 2017 | 374

Meet **Dr Phil Williamson**: climate 'scientist'; *Breitbart*-hater; sorely in need of a family size tube of Anusol to soothe the pain after his second failed attempt to close down free speech by trying to use press regulation laws to silence your humble correspondent.

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SUBMIT

But if, like Williamson, you are being paid large sums of money to conduct a research programme into Ocean Acidification, you'll obviously want to defend your mink-lined, gold-plated carriage on the climate change gravy train. So first he wrote a long, earnest defence of his income stream in *Marine Biologist*.

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Oceans

James Delingpole article calling ocean acidification 'alarmism' cleared by press watchdog

Climate sceptic journalist's claim that marine life has nothing to fear from rising ocean acidity levels is not misleading but 'comment', says Ipsos

Damian Carrington

@dcarrington

Thursday 5 January 2017 13:50 GMT

1,902

1,223

Unhealthy pteropod showing effects of ocean acidification including regged, dissolving shell ridges on upper surface, a cloudy shell in lower right quadrant, and severe abrasions and weak spots on lower whorl of shell. Photograph: Courtesy of NOAA.

A magazine article claiming "marine life has nothing whatsoever to fear from ocean acidification" has been deemed neither misleading nor inaccurate by the UK's press regulator.

The feature, written by journalist and climate-change sceptic James Delingpole, appeared in the Spectator under the headline "Ocean acidification: yet another wobbly pillar of climate alarmism".

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Science loses out to uninformed opinion on climate change – yet again

January 6, 2017 3:57pm GMT

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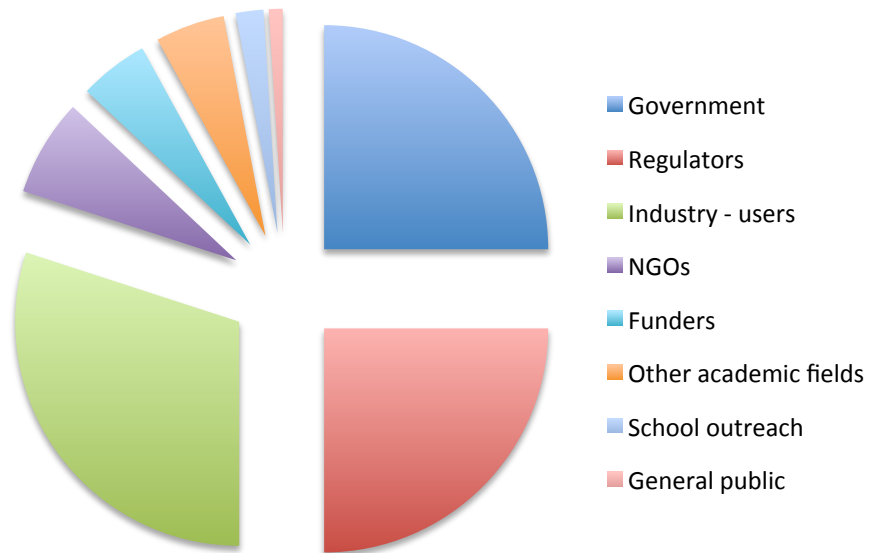
Ocean acidification is an inevitable consequence of increasing carbon dioxide in the atmosphere. That's a [matter of fact](#). We don't know exactly what will happen to complex marine ecosystems when faced with the additional stress of falling pH, but we do know those changes are happening and that they won't be good news.

The journalist James Delingpole disagrees. In an [article for The Spectator](#) in April 2016, he took the sceptical position that all concerns over ocean acidification are unjustified "alarmism" and that the scientific study of this non-problem is a waste of money. He concluded that the only reason that the study of ocean acidification was ever funded at all

Still living in a thinker's paradise

- Socrates: executed by hemlock
- Plato: sold into slavery for offending a tyrant
- Aristotle: forced to abandon his school to avoid execution
- Hypatia: stoned by mob for teaching philosophy
- Aquinas: condemned by the pope for using Arabic philosophy
- Descartes: exiled to avoid Inquisition
- Hobbes: forced to burn his works
- Locke: fled his homeland under suspicion of conspiracy
- Hume: charged with heresy
- Nietzsche: went insane
- Williamson: public derision

7. Are we talking with all tribes?



Proposal analysis, unpublished

Ivory Tower



Excluded stakeholders?

- Dispossessed
- Uneducated
- Older generation

Why not?

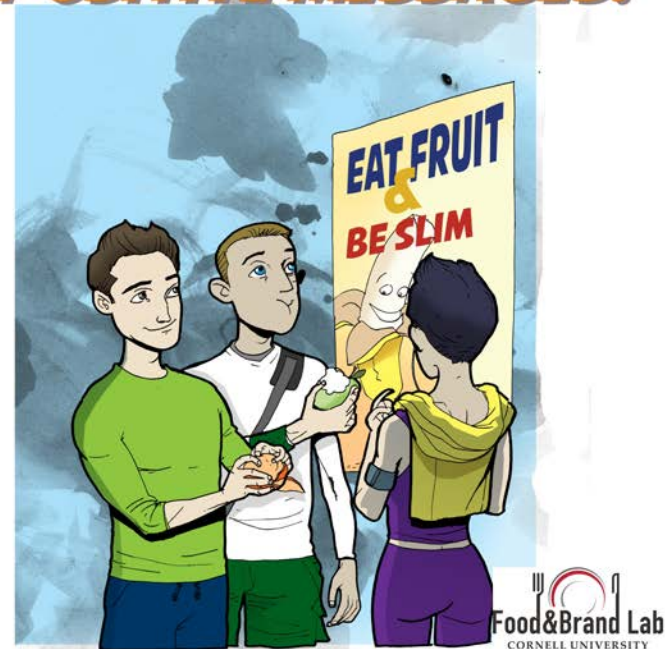
- Snobbishness? – not important
- Fear?
- Lack of awareness?

8. Doom and gloom messages?

WHICH HEALTH MESSAGES WORK?
EXPERTS PREFER NEGATIVE ONES BUT
THE PUBLIC FOLLOWS POSITIVE MESSAGES.



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9. Do we speak the right languages?

Terms that have different meanings for scientists and the public		
Scientific term	Public meaning	Better choice
enhance	improve	intensify, increase
aerosol	spray can	tiny atmospheric particle
positive trend	good trend	upward trend
positive feedback	good response, praise	vicious cycle, self-reinforcing cycle
theory	hunch, speculation	scientific understanding
uncertainty	ignorance	range
error	mistake, wrong, incorrect	difference from exact true number
bias	distortion, political motive	offset from an observation
sign	indication, astrological sign	plus or minus sign
values	ethics, monetary value	numbers, quantity
manipulation	illicit tampering	scientific data processing
scheme	devious plot	systematic plan
anomaly	abnormal occurrence	change from long-term average

Sommerville & Hassol, 2011

FASHION



SPORT



ENTERTAINMENT/ART



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Entertainment & Arts

Planet Earth II more popular than X Factor with young viewers

🕒 1 December 2016 | [Entertainment & Arts](#)

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A photograph of David Attenborough, an elderly man with white hair, smiling and wearing a light-colored jacket. He is standing in front of a large, rugged mountain with patches of snow under a clear blue sky. The foreground shows a green, grassy slope.

David or Goliath?



Summary

- Communication – part of the job
- Enthuse, inform, empower
- Commit to supporting ocean literacy
- Challenge misinformation
- Support those criticised for speaking up
- Talk to everyone
- Focus on positive messages for behaviour change
- Consider if corporate or personal communication
- Improve your tool skills if needed