

CommOcean 2025

# Science Journalism

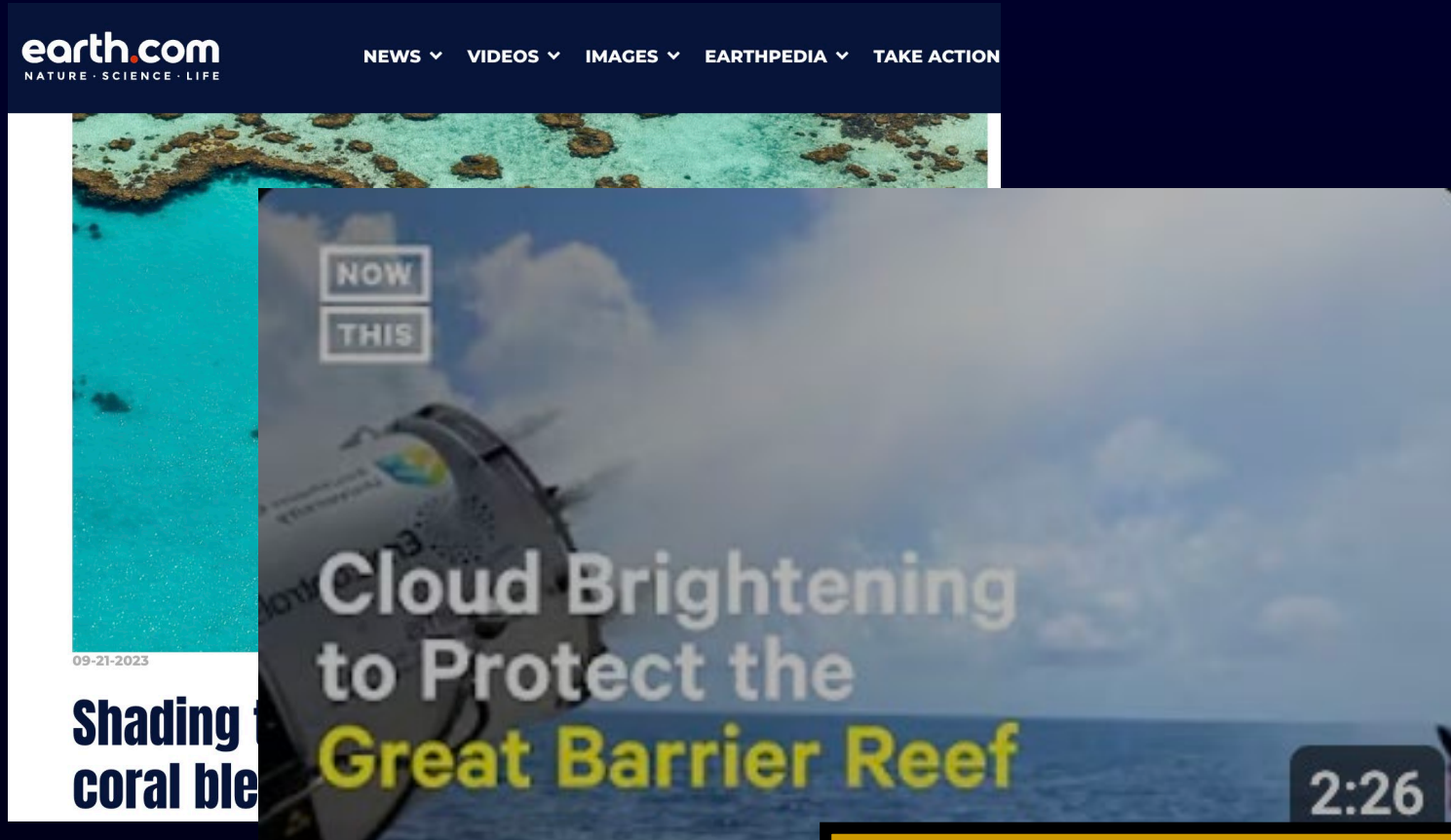
javier crúz

DGDC

UNAM

# Introduction

Let's start with some good news...



Now some bad news...

## From Latin America...

### Record seaweed bloom stinks up prime Caribbean vacation beaches

99K views • 6 months ago



# Introduction



So by reducing just a small amount of light, about 6 % or so of the average light over the summer, we can reduce about 50 to 60 % of the bleaching stress on the corals.



So the thought is that because our oceans are record hot, our air is record hot, that (is) fuel food for this seaweed (...) to grow much bigger than ever.

**Sounds *sciency*...**

# Trust?

If these are the main “messages”...

6% less sunlight => 60% less bleaching stress

oceans, air record hot => grow more than ever

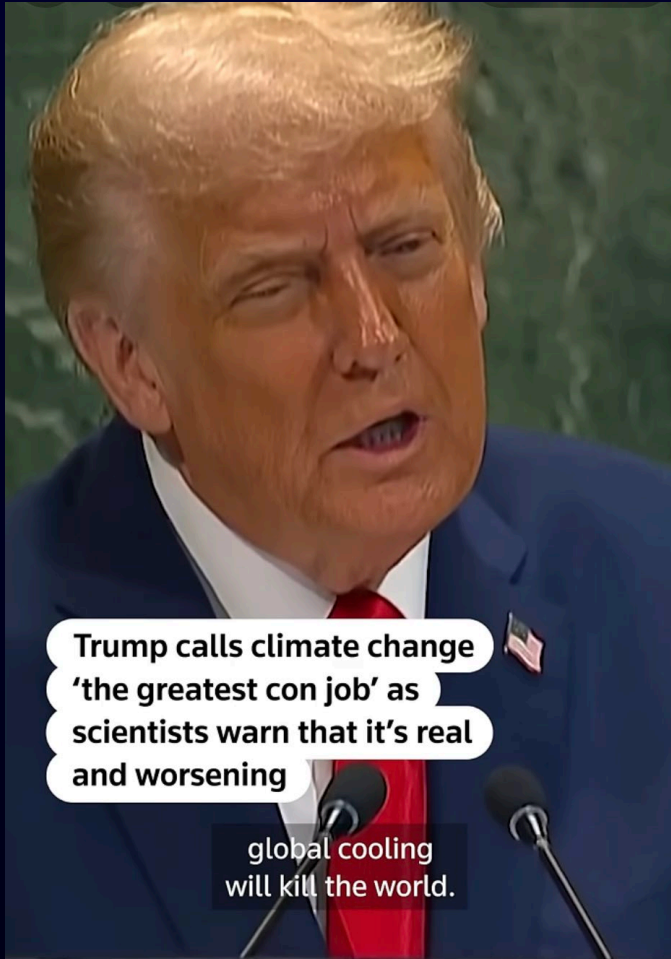
what is the audience expected to do?

what **CAN** they do?

**Trust?**  
**Believe?**

# Trust?

## Does it follow, then...



**that this should be believed?**

**Houston,  
do we have journalism?**



## The very basics

### 5 W's

What?

Who? When? Where?

**WHY ?**

A few observations regarding *WHY*

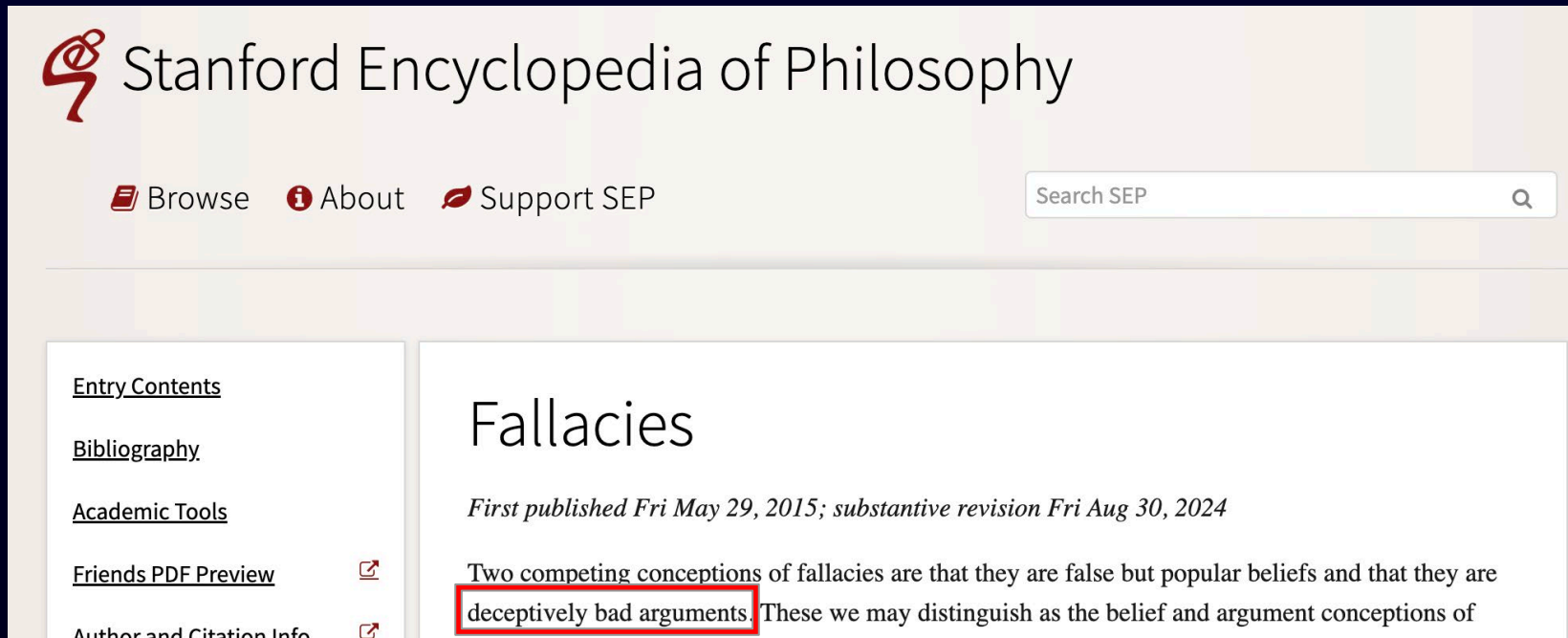
equivalent to *HOW*

science journalists tend to get it from scientists...

whom the audience is expected to believe !

**Houston,  
do we have a problem?**

## We probably do... appeal to authority is a fallacy



The screenshot shows the Stanford Encyclopedia of Philosophy (SEP) website. The header includes the SEP logo, the title 'Stanford Encyclopedia of Philosophy', and navigation links: 'Browse', 'About', and 'Support SEP'. A search bar is located on the right. The main content area is titled 'Fallacies' and includes a subtitle: 'First published Fri May 29, 2015; substantive revision Fri Aug 30, 2024'. The text states: 'Two competing conceptions of fallacies are that they are false but popular beliefs and that they are deceptively bad arguments. These we may distinguish as the belief and argument conceptions of'. The phrase 'deceptively bad arguments' is highlighted with a red box. A left sidebar contains links: 'Entry Contents', 'Bibliography', 'Academic Tools', 'Friends PDF Preview', and 'Author and Citation Info'.

- The fallacy of appeal to authority, when a claim is supported by reference to an authority instead of offering reasons to support it.

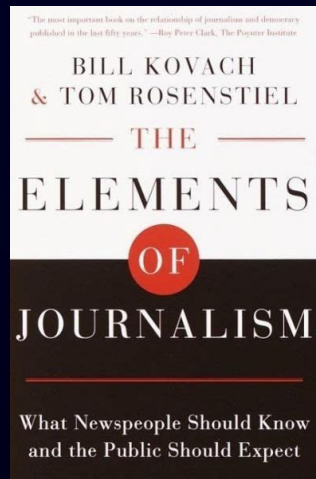
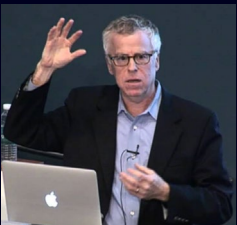


Should reporters **NOT** trust scientists?

**not** at face value

(although they very often do)

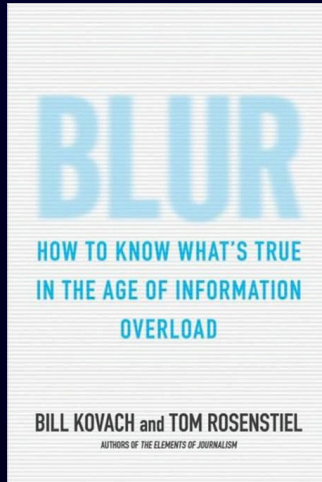
but **yes**, under certain circumstances



*The essence of journalism  
is a discipline of verification*

**Science journalists verify  
the science !???**

## Is that even possible?



*How will we **decide what** information to **believe** and what sources to **trust**? What is the future of truth and how as citizens are we to discern it?*

**Can **verification** and **trust** be compatible?**

**Once again,  
a latin american perspective...**

## When is trust justified?



*If A [the public] has good reasons to believe that B [the epistemic authority] has good reasons to believe in p [the fact], then A has good reasons to believe in p.*



**Good reasons?**

## Good reasons for what, exactly?

**let's get back to the oceans!**



by reducing just about 6 % or so  
of the average light over the summer,  
we can reduce about 50 to 60 %  
of the bleaching stress on the corals



— The source (scientist) has concluded that  
**(p)** is believable

— If challenged (which he will be), he is expected to  
defend the path to that conclusion

**Etymology helps...**

# A little Etymology



irus argue  Chatbot  Games Word of the Day Gra

## Word History

### Etymology

Middle English *arguen* "to present reasons or arguments, assert," borrowed from Anglo-French & Latin; Anglo-French *arguer*, borrowed from Latin *arguere* "to show, demonstrate, allege, bring a charge against, convict," probably going back to Indo-European **\*h<sub>2</sub>orǵ-u-je-** "make clear" (whence also Hittite *arku<sub>u</sub>ae-* "make a plea"), derivative of *\*h<sub>2</sub>erǵ-* "bright, white" — more at [ARGENT](#)

## -ment noun suffix

- 1 a** : concrete result, object, or agent of a (specified) action  
| *embankment*
- b** : concrete means or instrument of a (specified) action  
| *entertainment*

**Finally...**

# A little Etymology

An argument  
is a means to  
make clear something

## And beyond Etymology

### argument noun

ar·gu·ment ('är-gyə-mənt ▶)

[Synonyms of \*argument\* >](#)

1 **a** : the act or process of [arguing](#), reasoning, or discussing :

#### **ARGUMENTATION**

**b** : a coherent series of reasons, statements, or  
or establish a point of view

Thus, a scientific  
argument...

**scientific argument**

means to make clear  
the **rational** path from  
premises (and more)  
to conclusions

**{ conclusions }**

presumably  
new knowledge

**{ premises }**

previous knowledge  
hypothesis  
(and more)

**GOOD  
REASONS**



We **VERIFY** the science...

at the level of the arguments

by asking

why/how {p} happen

explanations

how do they know p happens

empirical  
evidence

If **YOU** are an ocean scientist...

don't expect your arguments to be questioned  
but plan to make them clear

oceans are always complex systems

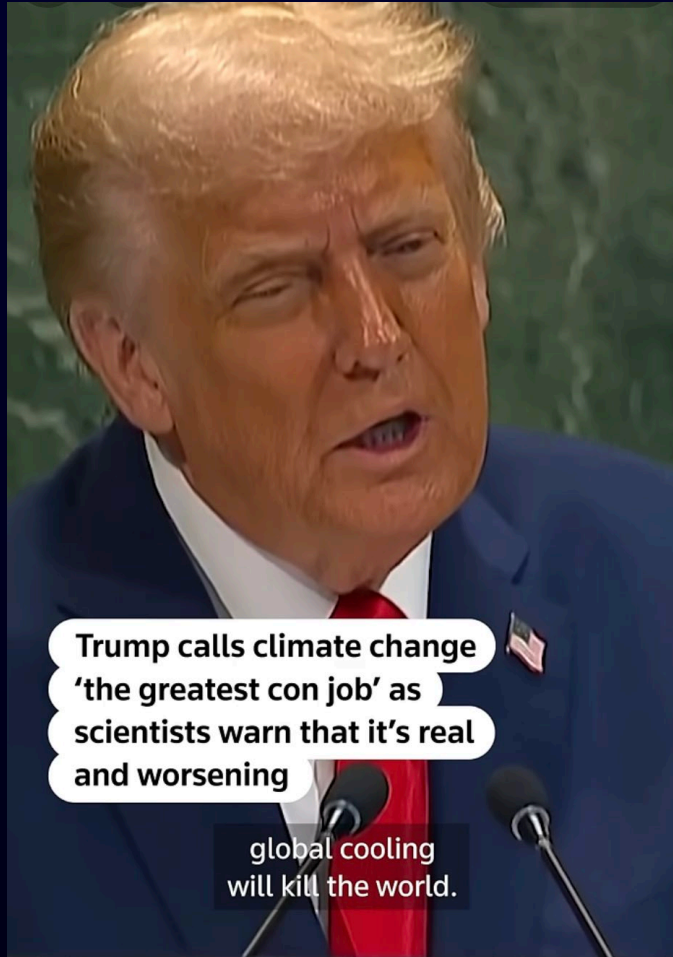
do expect the Appeal to Authority (bad argument)  
yet remember to display your good reasons

Strategise to the benefit  
of the public...

**Change is needed**

**Trust and believe have not worked...**

**(and it's not what journalism  
should pursue)**



**let's give rationality  
a fighting chance**

