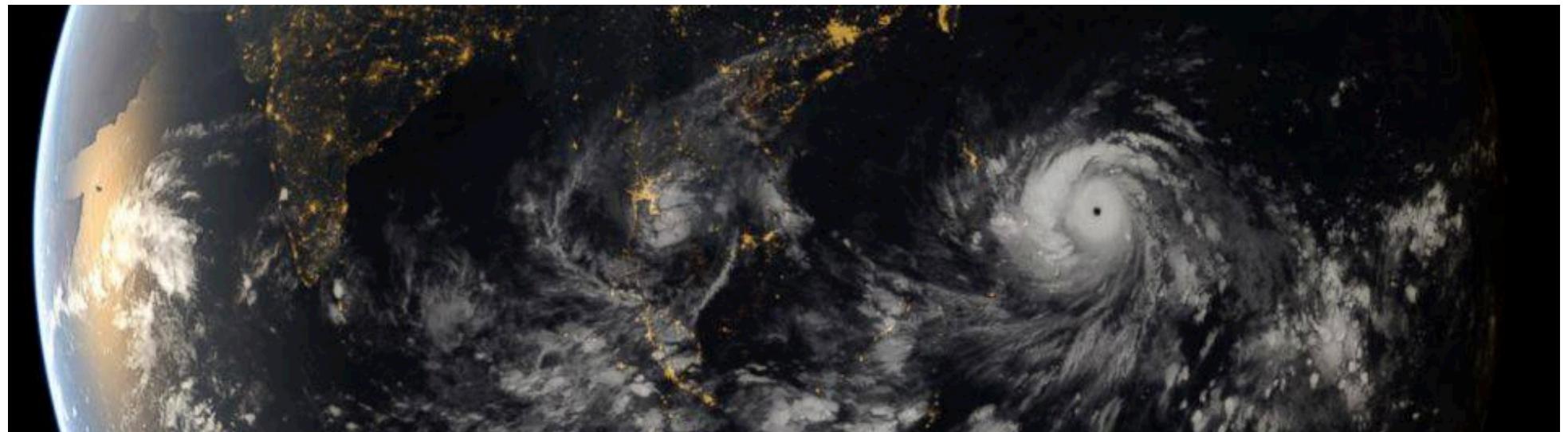


Climate Feedback: Une approche collaborative pour contrer la désinformation scientifique sur le climat



Emmanuel Vincent



New information gatekeepers⁽¹⁾ are being gamed

"news publishers have lost control over distribution."

Emily Bell, Columbia Journalism Review

80% of traffic to news websites comes from **Google & Facebook** ([Parse.ly](#))

The screenshot shows a Google search results page for the query "great barrier reef". The search bar at the top contains the text "great barrier reef". Below the search bar is a navigation bar with tabs: All (selected), News, Images, Maps, Videos, More, Settings, and Tools. A message indicates "About 31,700,000 results (1.08 seconds)". The "Top stories" section displays three news articles with corresponding images:

- Coral crisis: the Great Barrier Reef needs us to speak up** (The Sydney Morning Herald · 2 days ago) - An image of a scuba diver.
- DELINGPOLE: Great Barrier Reef Still Not Dying, Whatever Washington Post Says...** (Breitbart · 2 days ago) - An image of a sea turtle swimming over a coral reef.
- Only an End to Global Warming Can Save the Great Barrier Reef** (Wired · 1 day ago) - An aerial image of the Great Barrier Reef.

At the bottom left, there is a link "→ More for great barrier reef".

Facebook and Google
promote
misinformation
equally

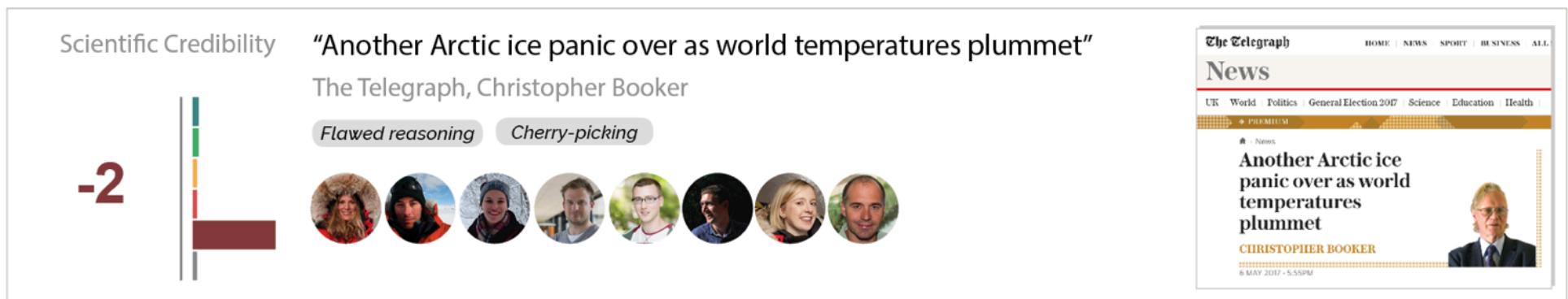
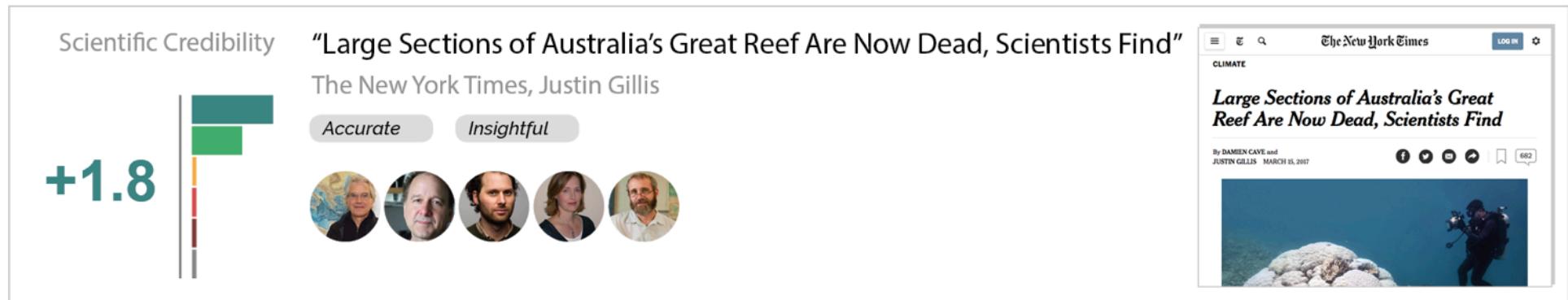
Climate Feedback

CONCEPT

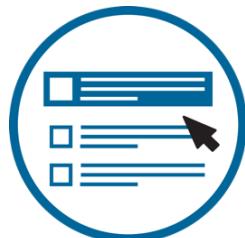
Scientists **review credibility** of influential media articles

FEEDBACK

- Public: **which climate news to trust**
- Journalists /Editors **improve accuracy** of coverage
- **Google/Facebook:** assess information credibility



Climate Feedback review workflow



1. Select

- Influential article + verifiable science based claims



2. Scientists analyze article collaboratively

- Scientists with verified expertise
(PhD + top-tier sci publication within 3 years)



3. Scientists rate article overall credibility

- Rate claims/article on a "scientific credibility" scale
(-2 'Very Low' to +2 'Very High')

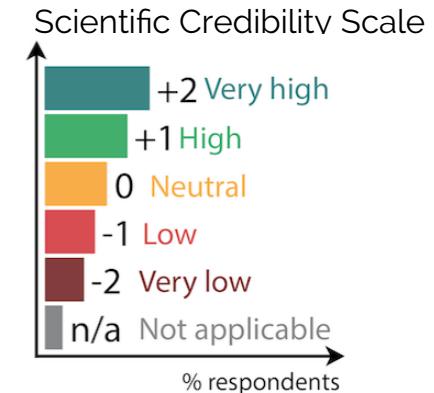
4. Provide Feedback

- Share summary with editor & the public

Framework to assess scientific credibility

Scientists asked whether articles overall credible or not.

These are dimensions their comments point to:



1. Factual Accuracy

Article builds on accurate evidence?

2. Scientific understanding

Explanations convey correct interpretation and understanding of the facts with sufficient context?

3. Logic/Reasoning:

Conclusions follow sound logic?

4. Precision/Clarity

Article builds on precise language, not ambiguous or vague claims?

5. Sources Quality/Credibility

Use adequate sources to back up important claims (experts, references)?

6. Objectivity/Bias

Does the author hold for 'right' certain sources without proper justification?

Example

s/http://nymag.com/daily/intelligencer/2017/07/climate-change-earth-too-hot-for-humans.ht...



few hundred miles, because yields in places like remote Canada and Russia are limited by the quality of soil there; it takes many centuries for the planet to produce optimally fertile dirt.

Drought might be an even bigger problem than heat, with some of the world's most arable land turning quickly to desert. Precipitation is notoriously hard to model, yet predictions for later this century are basically unanimous: unprecedented droughts nearly everywhere food is today produced. By 2080, without dramatic reductions in emissions, southern Europe will be in permanent extreme drought, much worse than the American dust bowl ever was. The same will be true in Iraq and Syria and much of the rest of the Middle East; some of the most densely populated parts of Australia, Africa, and South America; and the breadbasket regions of China. None of these places, which today supply much of the world's food, will be reliable sources of any. As for the original dust bowl: The droughts in the American plains and Southwest would not just be worse than in the 1930s, a 2015 NASA study predicted, but worse than any droughts in a thousand years — and that includes those that struck between 1100 and 1300, which “dried up all the rivers East of the Sierra Nevada

> Public

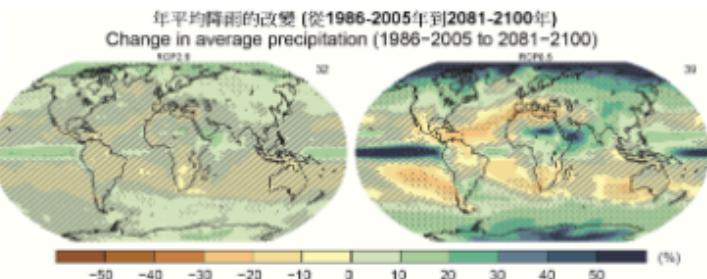
Sign up / Log in

Alexis_b

12 Jul 2017

Precipitation is notoriously hard to model, yet predictions for later this century are basically unanimous: unprecedented droughts nearly everywhere food is today produced

This is not true for precipitation. See the right panel on the plot below:



What the author is probably referring to is drought projections not based on precipitation alone, but rainfall+temperature, as shown for instance by the [Palmer Drought Index](#).

However, there is a debate as to how best to interpret such projections in terms, for instance, of impacts on vegetation (and crop yields) or water resources - e.g., see: Milly, Paul CD, and Krista A. Dunne. "[Potential evapotranspiration and continental drying](#)." Nature Climate Change 6, no. 10 (2016): 946-949.

So I would argue things are more uncertain than the authors implies here.

Example

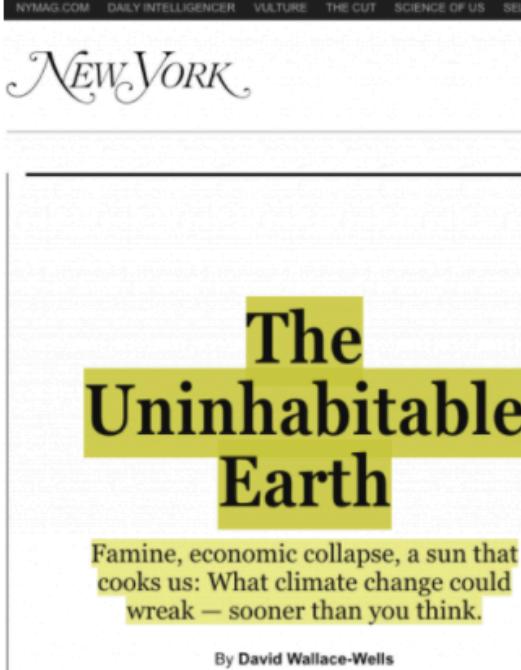
Climate Feedback About ▾ Scientific Feedbacks Community News & Events

Scientists explain what *New York Magazine* article on “The Uninhabitable Earth” gets wrong

Analysis of ‘The Uninhabitable Earth’
Published in *New York Magazine*, by David Wallace-Wells on 9 July 2017

Seventeen scientists analyzed the article and estimated its overall scientific credibility to be ‘low’. ^②
A majority of reviewers tagged the article as: Alarmist, Imprecise/Unclear, Misleading.

4.2k SHARES [Share](#) [Tweet](#) +



The screenshot shows the article's header, social sharing buttons, and a portion of the text. To the right of the article, there is a sidebar titled "Reviewers" listing nine scientists with their profiles and credibility scores.

Reviewer	Overall Scientific Credibility Score	Category
Alexis Berg	-0.7	Low
Benjamin Horton	-0.7	Low
Carl Mears	-0.7	Low
Charles Koven	-0.7	Low
Christopher Colose	-0.7	Low
Daniel Swain	-0.7	Low
David Archer	-0.7	Low
David Battisti	-0.7	Low
Kristie Ebi	-0.7	Low

Annotations 78 Page Notes 1 ClimateFeedback.org 47 secs

The Uninhabitable Earth
David Wallace-Wells, New York Mag

Scientific Credibility
-0.7

+2 Very high
+1 High
0 Neutral
-1 Low
-2 Very low
n/a Not Applicable

% respondents

Find more details in the annotations below and in [Climate Feedback's analysis](#).

Misleading | Alarmist | Imprecise/Unclear

Example

Response from the editor: corrections and annotated version with more refs/details

NYMAG.COM NEW YORK MAGAZINE ▾ DAILY INTELLIGENCER VULTURE THE CUT SELECT ALL GRUB STREET

NEWYORK



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The Uninhabitable Earth, Annotated Edition

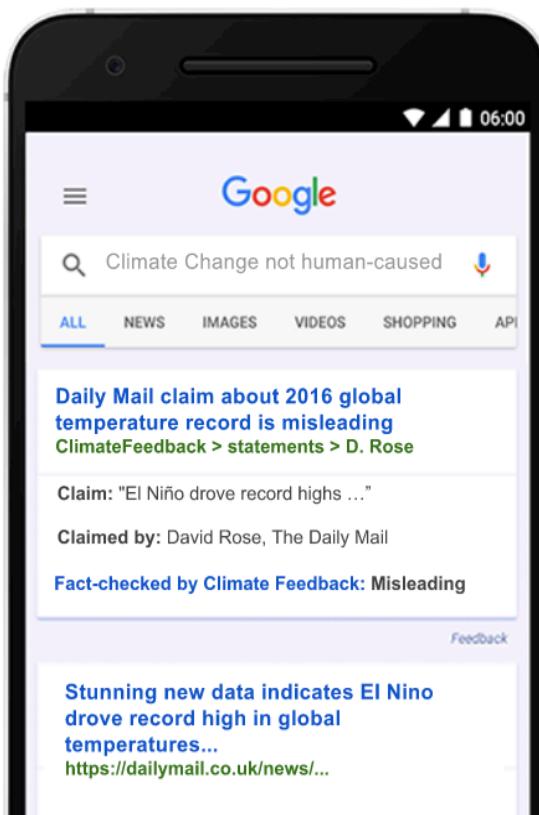
The facts, research, and science behind the climate-change article that explored our planet's worst-case scenarios.

By David Wallace-Wells



Next step: informing Google & Facebook

- Google is now featuring fact-checks in News and general search results
- Facebook highlights fact-checks in "Related articles" section when a news is disputed by fact-checkers
- Climate Feedback is a verified signatory of the **International Fact-Checking Network code of principles**



A screenshot of a Facebook post from Daily Mail. The post includes the following text:

Stunning new data indicates El Nino drove highs in global temperatures

A recent fall in global average temperatures over land has been caused by the end of El Nino – the warming of surface waters in a vast area of the Pacific...

DAILYMAIL.CO.UK

Like Comment Share

PEOPLE ALSO SHARED

Daily Mail

Stunning new data indicates El Nino drove highs in global temperatures suggesting we may not have to wait for more extreme weather events to come. The warming of surface waters in a vast area of the Pacific has been caused by the end of El Nino – the warming of surface waters in a vast area of the Pacific...

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Antarctic Sea Ice Reaches New Record

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ClimateFeedback.org

Get in touch for collaborations in France



emvincent@climatefeedback.org

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Types of issues: Factual inaccuracies

The Spectator logo: THE SPECTATOR

COFFEE HOUSE GENERAL ELECTION 2017 MAGAZINE WRITERS BOOKS & A

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



CLAIM

"there has been no reduction in oceanic pH levels in the last century"

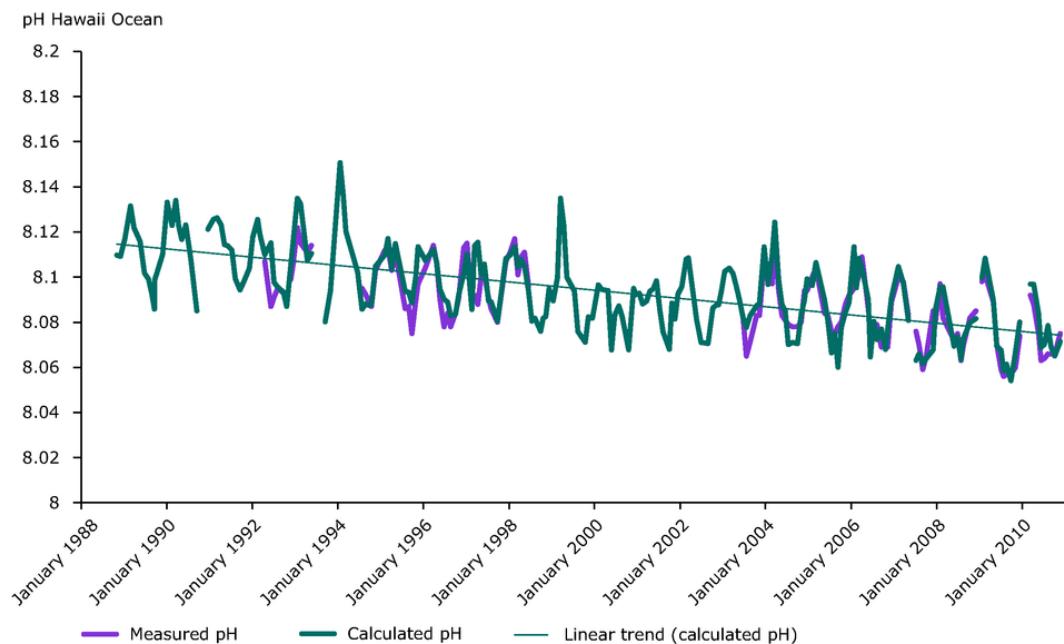
Types of issues: Factual inaccuracies

The Spectator logo and navigation bar: COFFEE HOUSE, GENERAL ELECTION 2017, MAGAZINE, WRITERS, BOOKS & A.

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



CLAIM

"there has been no reduction in oceanic pH levels in the last century"

Ken Caldeira, Senior Scientist, Carnegie Institution for Science:

This statement just flies in the face of observational facts...

Tullio Rossi, Marine biologist, University of Adelaide:

This is plain wrong. Oceanic pH levels decreased by 0.1 units compared to pre-industrial levels. This corresponds to a 30% increase in acidity.

VERDICT

INACCURATE

Types of issues: Misrepresentation of sources

Breitbart misrepresents research from 58 scientific papers to falsely claim that they disprove human-caused global warming

Analysis of "Global Warming' Is a Myth, Say 58 Scientific Papers in 2017"

Published in Breitbart, by James Delingpole on 6 Jun 2017

Five scientists analyzed the article and estimated its overall scientific credibility to be 'very low'. ^②

A majority of reviewers tagged the article as: Cherry-picking, Derogatory, Flawed reasoning, Inaccurate, Misleading.



Types of issues: Misrepresentation of sources

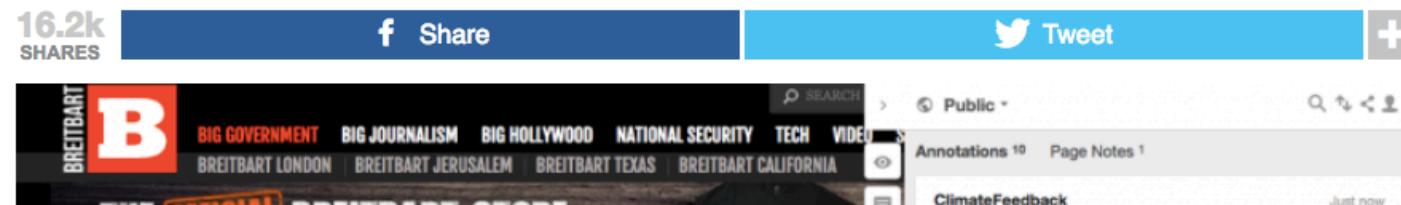
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Climate Feedback reached out to authors of the scientific studies in the list of 58 papers that Delingpole claims "corroborate, independently and rigorously" his view that "'man-made global warming' just isn't a thing."

So far, 29 scientists have responded to our request for comment, and all 29 have replied "No" to the question, "Do you agree with the Breitbart article that your study provides evidence against modern climate change caused by human activities?" You can read more about their reactions below.



Types of issues: Incorrect explanations



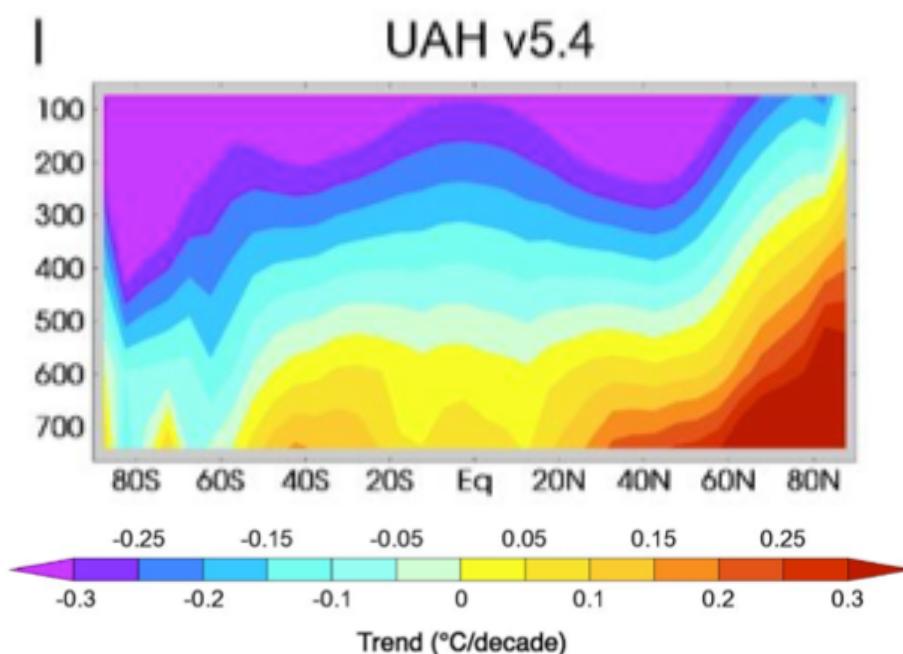
CLAIM

"Solar forcings are not too small to explain twentieth century warming. In fact, their effect could be equal to or greater than the effect of CO₂ in the atmosphere."

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Types of issues: Incorrect explanations



Zonal-mean atmospheric temperature trends in satellite observations from January 1979 to December 2012 showing warming of the lower atmosphere (troposphere) and cooling of the upper-atmosphere (stratosphere),

CLAIM

"Solar forcings are not too small to explain twentieth century warming. In fact, their effect

VERDICT

INCORRECT

Timothy Osborn, Professor, University of East Anglia

There is strong evidence that solar forcing cannot explain much of the observed warming at all. The “fingerprint” of solar forcing does not match the observed changes at all, neither over time nor space. **Solar forcing would warm both the stratosphere and the surface of the Earth, whereas CO₂ warms the surface (and the troposphere) but cools the stratosphere.**

Types of issues: Flawed logic

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OPINION | COMMENTARY | COMMENTARY (U.S.)

About Those Non-Disappearing Pacific Islands

Residents are leaving the Marshall Islands, but not because of climate change. Hype and exaggeration serve no one.

By Bjorn Lomborg

Oct. 13, 2016 7:20 p.m. ET

Lomborg: "It seems self-evident that rising sea levels will reduce land area. However, there is a process of accretion, where coral broken up by the waves washes up on these low-lying islands as sand, counteracting the reduction in land mass."

Lomborg's conclusion?:

- "the Paris climate agreement is likely to be history's most expensive treaty... It will achieve almost nothing."

Types of issues: Flawed logic

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REVIEW & OUTLOOK Uber's Growing Pains

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REVIEW & OUTLOOK Pennsylvania's Lesson for Illinois

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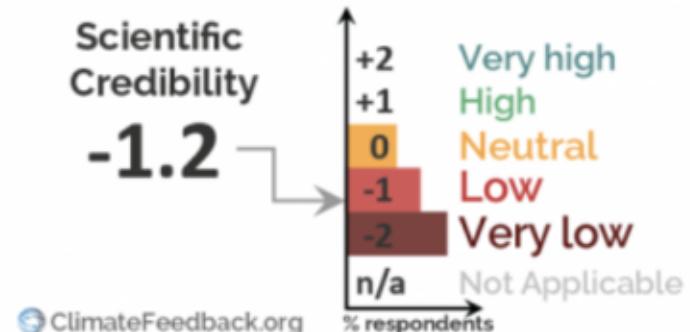
Katrin Meissner, Associate Professor, University of New South Wales:

This article is **misleading**. The dynamics of shorelines of low-lying Pacific Islands are complicated and influenced by many local factors. Climate change and associated sea-level change are the underlying trend that will “win” over long time scales.

This article is a textbook example of **cherry-picking**—jumping to false conclusions based on a small sample of data

12 scientists rating:

“About Those Non-Disappearing islands”
Bjorn Lomborg, The Wall Street Journal



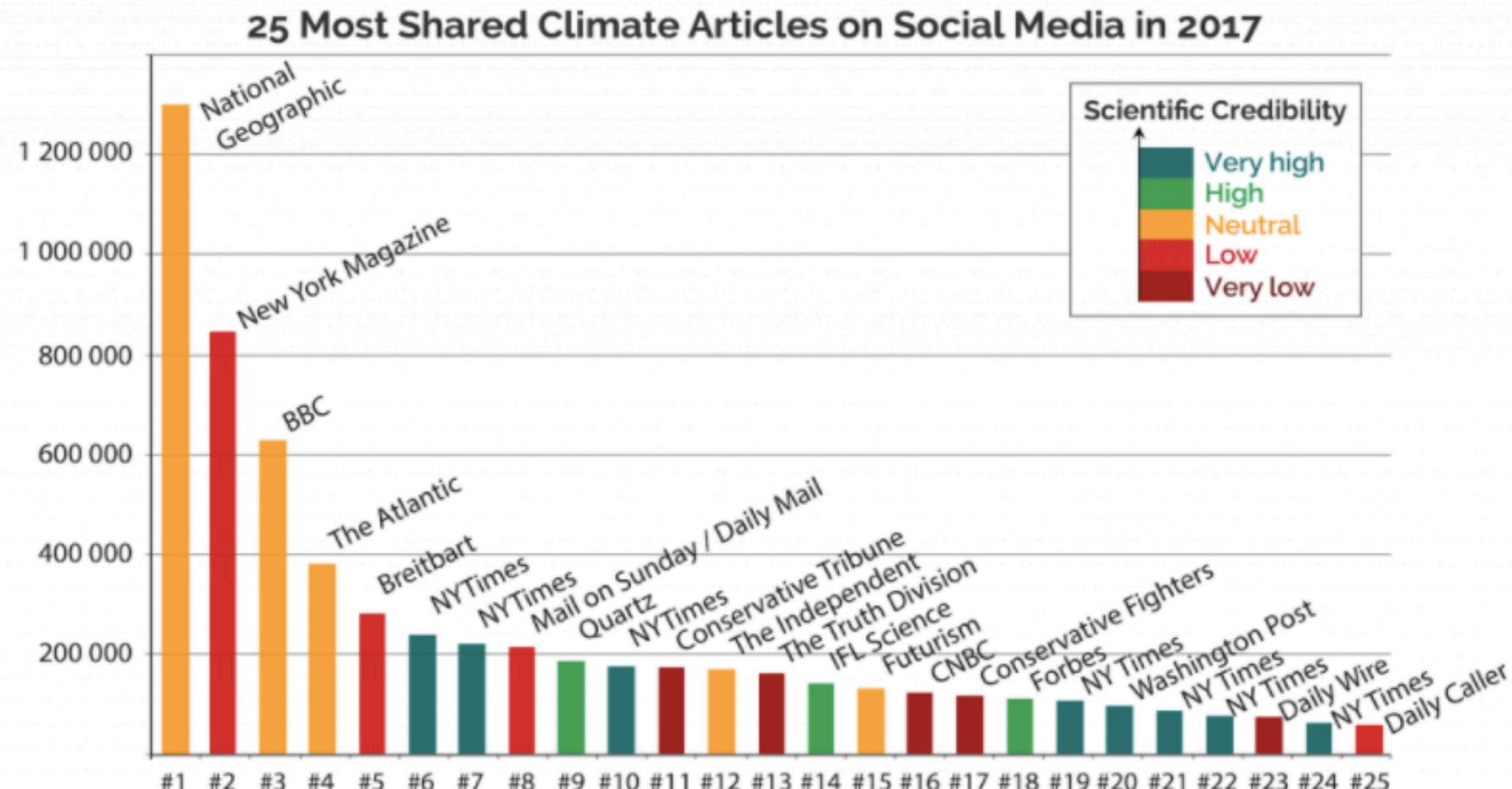
Misinformation increasingly tops credible info

Most popular climate change stories of 2017 reviewed by scientists

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Misinformation increasingly tops credible info

Integrated reach of the Most Shared Climate Articles in 2017

