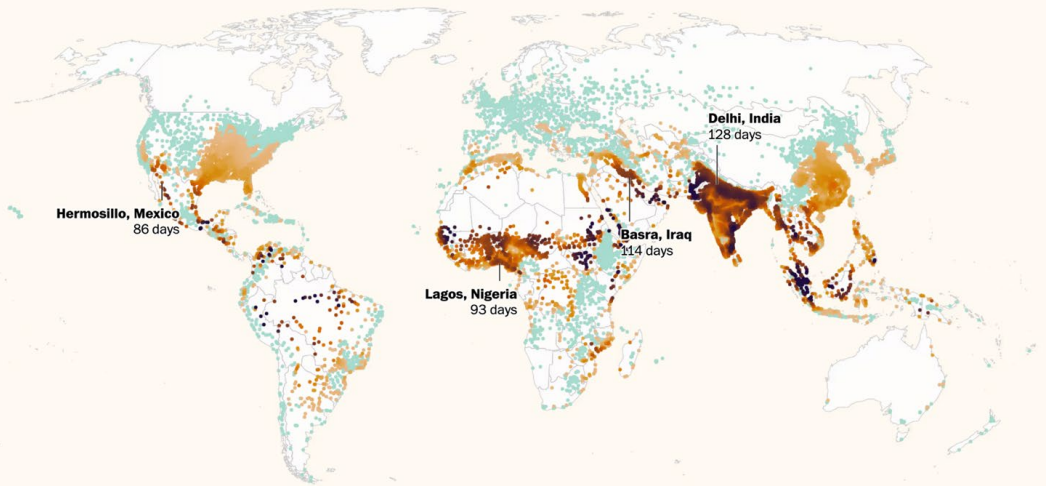


Where people experience highly dangerous heat

Days with wet-bulb globe temperature in the sun above 89.6°F
0 1 30 60 90 180 days+

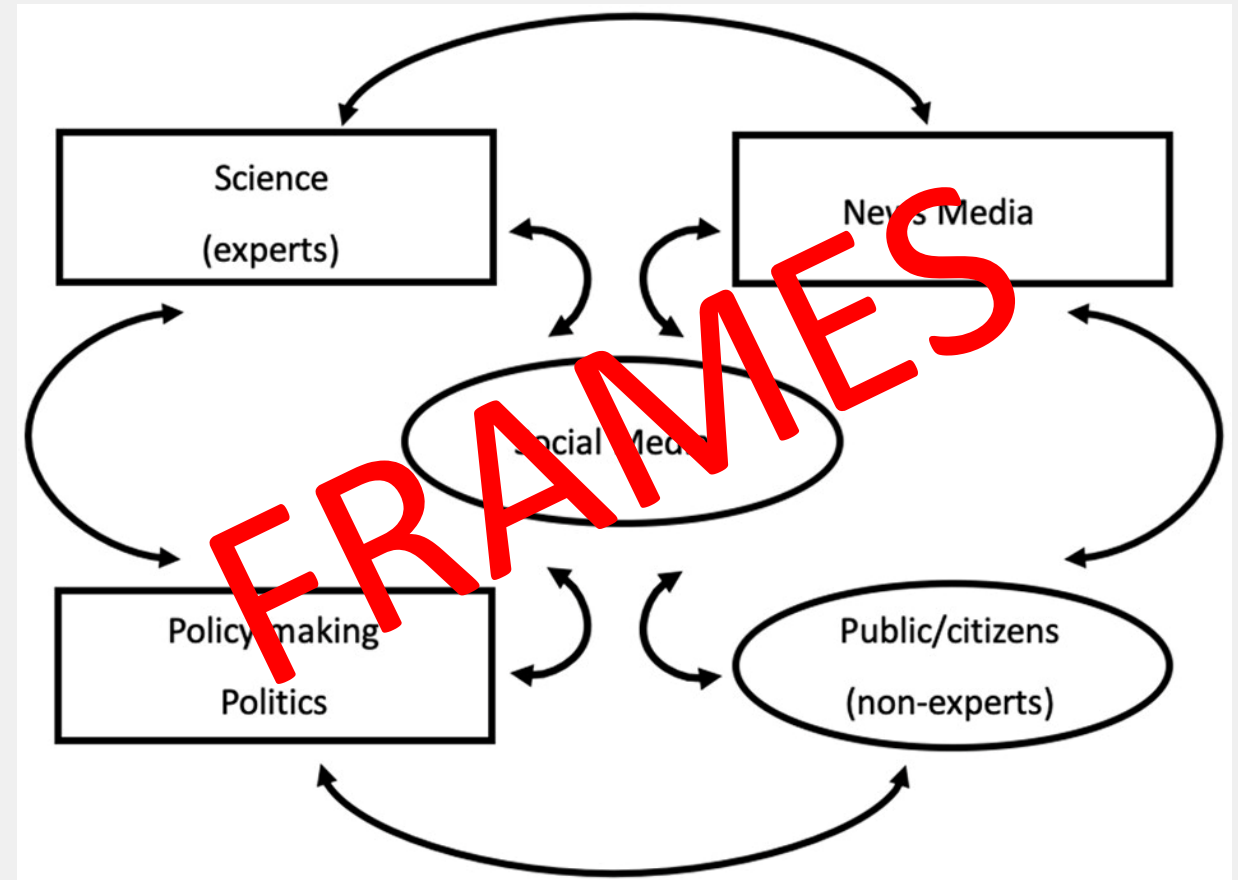
2000 2050



How do journalists
portray extreme events
and climate change?

Shannon Osaka
Climate Zeitgeist Reporter
The Washington Post

The media's role in communicating climate change



Frames/phases of climate journalism on extreme weather

- Phase 1: “No individual weather event can be linked to climate change”
- Phase 2: EEA new, cuttingedge science – w/ caveats
- Phase 3 [now]: EEA widely reported– but some readers disengaged

Phase 1: Attribution impossible

“[N]o individual weather event can properly be said to have been ‘caused’ by global warming.” – Paul Krugman, NYT, 2011

“That said, scientists are reluctant to attribute any specific weather event to global warming.” – John Schwartz et al., NYT, 2011

“And yet trying to attribute specific hurricanes to changes in global temperature remains quite difficult.” – Brad Plumer, Washington Post, 2012

Phase 2: Attribution new, uncertain

Osaka et al., 2020 *Media Representation of Extreme Event Attribution: A Case Study of the 2017 California Drought* (Weather, Climate, and Society)

- Media coverage largely featured “uncertainty” framing; most uncertainty was “lack of consensus” framing or “expansion of the problem domain” – experts saying further research needed.

- Twenty-two of 26 articles with attribution as a major or minor topic (about 85%) included disagreement or uncertainty.

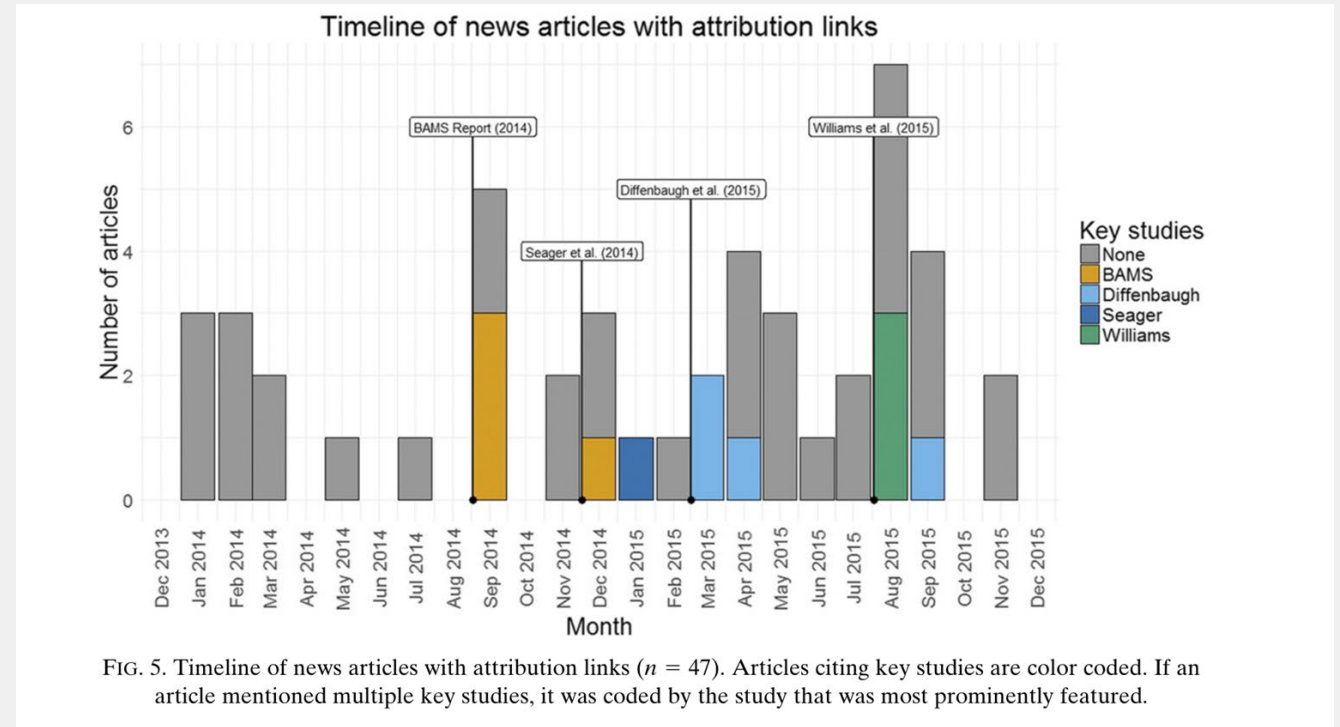


FIG. 5. Timeline of news articles with attribution links ($n = 47$). Articles citing key studies are color coded. If an article mentioned multiple key studies, it was coded by the study that was most prominently featured.

Phase 2: Attribution new, uncertain

“One of three studies examining the California drought in 2013 found that the kind of high-pressure systems that blocked winter storms last year have increased with global warming. But another study concluded that a longterm rise in sea surface temperatures in the western Pacific did not contribute substantially to drought.” — LA Times, 2014.

“The drought is consistent with what can happen with natural variability,” said the study’s lead author, Richard Seager . . . But some scientists, including Michael E. Mann, a climate scientist at Pennsylvania State University, said the report had understated the impact of warming.” — New York Times, 2014

Phase 3: Rapid attribution mainstream (in some outlets)

Capital Weather Gang

Pacific Northwest heat wave was ‘virtually impossible’ without climate change, scientists find

The unprecedented episode was made at least 150 times as likely by rising temperatures, according to a rapid analysis

July 7, 2021

Global Warming Made Helene More Menacing, Researchers Say

In cooler times, a similarly rare storm over the Southeast would have delivered less rain and weaker winds, a team of scientists concluded in an analysis.

Phase 3: Rapid attribution mainstream (in some outlets)

- Rapid attribution commonly covered, known and understood by most climate journalists
- Still not universal – more conservative leaning outlets almost never cover attribution studies

But ...

- For our audience, attribution alone no longer attracts much reader engagement or interest
- Serves more as an input into larger stories than as a detail in a standalone story
- Journalists often looking for *conflict* and *new frames*— EEA doesn't always fit those stories

Climate change fueled historic 2020 hurricane season's rainfall, study shows

Researchers found hourly hurricane rainfall totals in 2020 were up 11 percent, compared with those in the preindustrial era

Updated April 12, 2022

As Hurricane Beryl Surged Toward Texas, Scientists Found Human-Driven Warming Intensified Its Wind and Rain

Key skills for journalists/scientists

- Journalists and scientists can explain the variables/time windows/analysis type for each EEA study– and why different studies might come to different conclusions
- Rapid, collaborative studies can reduce uncertainty framings
- Impact EEA can add new frames and interest to readers
- Visual journalism more and more popular – can help readers understand concepts in a new way
- Journalists also have to decide– how much is this adding value to *my* audience? And is this how I should use my limited time?