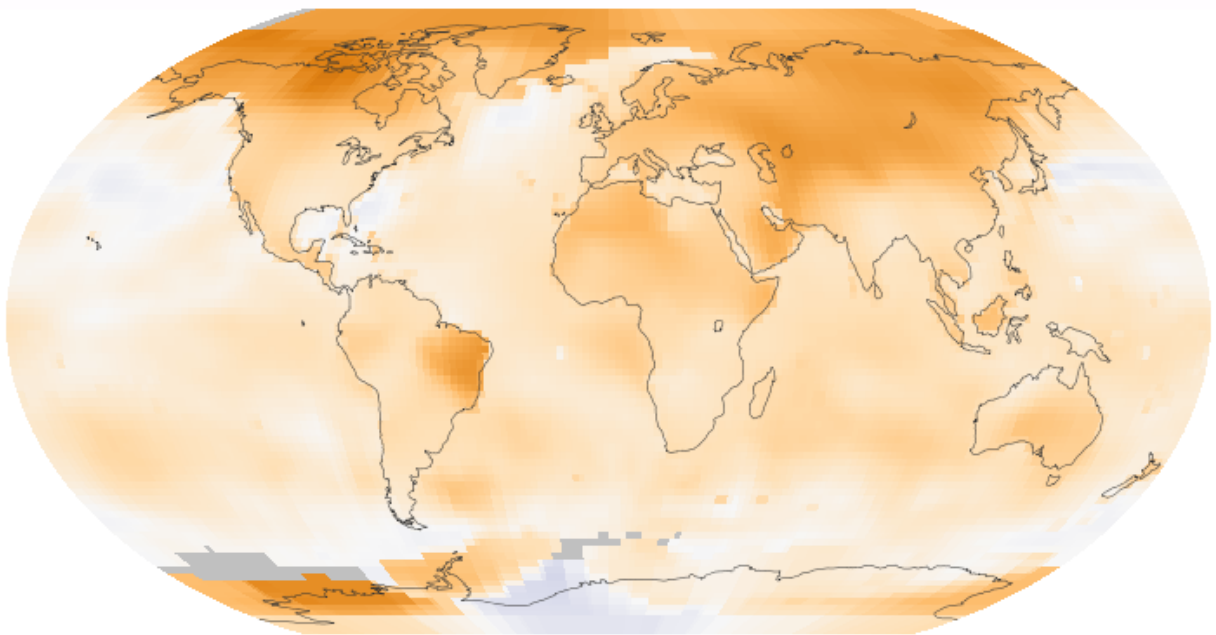


# New paper shows degree of impact of corporate messaging on public perception of global warming

December 1 2015, by Bob Yirka

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Global mean surface temperature change from 1880 to 2014, relative to the 1951–1980 mean. The black line is the annual mean and the red line is the 5-year running mean. The green bars show uncertainty estimates. Credit: NASA GISS.

(Phys.org)—Justin Farrell of Yale University has published another paper as part of his research into the ways that large corporations are using disinformation campaigns to confuse the public regarding global

warming and its cause—just [last week](#) he published a paper in *Proceeding of the National Academy of Sciences*, offering evidence of large corporations intentionally causing confusion regarding global warming. This time around he offers a report in the journal *Nature Climate Change* that outlines techniques he's been using that help to gauge just how successful the disinformation campaigns have been.

Not all people in the United States believe that the planet is heating up, or that it is most certainly due to human related [greenhouse gas emissions](#). Why this is has been somewhat of a mystery, particularly to people in other countries. In Farrell's paper last week, he reported that he'd found evidence that it has a lot to do with disinformation campaigns led by major corporations, many of which have something to lose if the country switches to alternative energy sources. In his new paper, he reports that he has found a way to measure just how successful those campaigns have been.

By combining several different types of semantic, network and statistical network analysis techniques and using them on data obtained from the public domain (texts, social network sites, trade associations, television networks, presidential speeches, etc.) over the years 1993 to 2013 that involved global warming, Farrell claims he was able to show that over the two-decade time frame, many such texts matched those published by very [large corporations](#) and some wealthy private citizens, indicating that such entities have been quite successful at getting their messages into the [public domain](#) and in stirring the debate over [global warming](#)—enough to cause doubt about the evidence coming from the scientific community in many people and that in turn has caused many to doubt that the planet is actually warming, despite overwhelming scientific evidence.

By muddying the waters and causing doubt, the disinformation campaign, he claims, has resulted in inertia on the part of lawmakers, which in turn is preventing measures from being put into place that

could help slow the emissions that are causing the problem.

**More information:** Network structure and influence of the climate change counter-movement, *Nature Climate Change* (2015) [DOI: 10.1038/nclimate2875](https://doi.org/10.1038/nclimate2875)

## Abstract

Anthropogenic climate change represents a global threat to human well-being<sup>1, 2, 3</sup> and ecosystem functioning<sup>4</sup>. Yet despite its importance for science and policy, our understanding of the causes of widespread uncertainty and doubt found among the general public remains limited. The political and social processes driving such doubt and uncertainty are difficult to rigorously analyse, and research has tended to focus on the individual-level, rather than the larger institutions and social networks that produce and disseminate contrarian information. This study presents a new approach by using network science to uncover the institutional and corporate structure of the climate change counter-movement, and machine-learning text analysis to show its influence in the news media and bureaucratic politics. The data include a new social network of all known organizations and individuals promoting contrarian viewpoints, as well as the entirety of all written and verbal texts about climate change from 1993–2013 from every organization, three major news outlets, all US presidents, and every occurrence on the floor of the US Congress. Using network and computational text analysis, I find that the organizational power within the contrarian network, and the magnitude of semantic similarity, are both predicted by ties to elite corporate benefactors.

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