

## What do Google searches tell us about our climate change fears?

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Republicans search the Net for information about the weather, climate change and global warming during extremely hot or cold spells. Democrats Google these terms when they experience changes in the average temperatures. These are some of the surprising findings from a study by Corey Lang of the University of Rhode Island in the US, published in Springer's journal *Climatic Change*. He tracked how the temperature fluctuations and rainfall that Americans experience daily in their own cities make them scour the Internet in search of information about climate change and global warming. To do so, he used data from Google Trends, local weather stations and election results.

Google Trends aggregates all Google searches that are made, and measures how popular a specific search term is. Users can fine tune this to be specific to a particular place (such as a country or city) and time (such as monthly or on a specific date). Lang specifically checked how often, when and where citizens in 205 cities in the US used the search terms "global warming," "climate change" and "weather." The terms "drought" and "flood" were also included because increases in these natural phenomena are important predicted impacts of climate change. Monthly statistics were collected for the period from January 2004 to May 2013. Lang then matched them with local weather station data, as well as the 2008 presidential election results in Dave Leip's "Atlas of Presidential Elections."

Lang found that search activity increased when extreme heat was felt in summer, when no rain fell over extended periods, and when there were



fewer extreme cold snaps in winter. Such weather fluctuations are consistent with projected climate change. Interestingly though, searches also increased when average winter and spring temperatures dropped – events that are inconsistent with global warming. Lang believes this could mean that people who observe unusual extreme weather conditions are genuinely interested in learning more about climate change. It could, however, also mean that deniers, who experience an unusually cool winter, go online to confirm their skeptical views that the world is not really growing warmer.

People from varying political and educational backgrounds reach for their devices at different times to check out information on climate change. Republicans and people from less educated areas do more relevant searches during periods of extreme temperatures, while Democrats and residents of well-educated areas do so when they experience changes in average temperatures.

"Weather fluctuations have an impact on climate change related search behavior, however not always in ways that are consistent with the impacts of climate change. And the research suggests that different types of people experience weather differently or have different perceptions about what type of weather defines climate change, "concludes Lang."

## Provided by Springer

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