Signals of Doubt: Harnessing the Power of Text-Mining to Understand Media Coverage of Climate Change

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Abstract

Although agreement among scientists on anthropogenic climate change is clear, national surveys show that the American public's perceptions on the science of climate change diverge significantly from the "consensus view". Some scholars point to the mass media as being largely responsible for this divergence. By providing disproportionate amounts of attention to climate change contrarians, many news outlets are, in effect, presenting a "biased" view of climate science. This paper tracks the dynamics of climate change contrarianism in American cable news transcripts over the period January 2000-February 2013. Specifically, we apply a novel algorithm to isolate and classify contrarian statements in television news shows. Our results highlight how even simple uses of recent advances in natural language processing provide insight into key questions in the literature on media coverage of the environment.

Keywords: climate change, cable news, text mining, biased processing, latent semantic indexing

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