Department of Environmental Science and Policy Seminar Series

An AI-assisted model for detecting and tracking wind energy opposition

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Abstract: Increasing the availability of clean, renewable energy is essential to the phase-out of fossil fuels and offers a key mechanism for mitigating the most harmful effects of climate change. Yet, at the highest levels of government in the United States, there is growing opposition to renewable energy in general and wind energy in particular. Against this backdrop, our study develops a comprehensive taxonomy of wind opposition claims and develops a model to classify these claims in unseen text. We begin by outlining an AI-assisted procedure for taxonomy development, which dynamically updates and organizes possible wind opposition claims by “reading” a large, diverse sample of text on wind power. Next, we develop a procedure for fine-tuning a scalable LLM-based classifier of claims and examines the performance of our model on a test set of human annotations. Our research offers the first detailed taxonomy wind energy opposition claims, while also providing a general computational framework for studying opposition discourse in other political contexts and media environments. We apply the model to examine the dynamics of opposition claims in Congressional speech over the past two decades.

Bio: Travis is a Professor in Computational Social Science at the University of Exeter. He is a Director of the Centre for Climate Communication and Data Science (C3DS), a member of the Centre for Elections, Media, and Participation (CEMaP), and the Institute of Data Science and Artificial Intelligence at Exeter. While he has published on a wide range of topics, his core research develops computational approaches to explore questions in the areas of environmental and political communication. Travis' work has appeared in journals such as the American Political Science Review, Climatic Change, Global Environmental Change, the Journal of Politics, and Social Networks, among others.

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