

Buffett Undergraduate Research Fellowship Opportunity

The Temporality and Geography of Climate Change in U.S. News (2000-2021)

Faculty Mentor: Oscar Stuhler, Assistant Professor, Sociology (Evanston campus)

Project Synopsis: Questions of temporality are at the heart of global climate change discourse. If it hasn't yet, when should we anticipate climate change to affect us? By when must we take action to prevent its worst consequences? While climatologists provide sophisticated models for answering some of these questions, we currently lack a good understanding of how climate change is temporalized in the wider public sphere. This project will use data from ~300,000 news articles as well as novel methods from computational linguistics to investigate temporalities expressed in U.S. media discussions of climate change (2000-2021). Building on large language models, we will develop a framework for detecting and interpreting temporal expressions related to climate change. Our goal will be to formally measure the temporal horizons used to discuss specific ecological phenomena and their consequences (e.g., impacts on agriculture or melting glaciers) in public discourse. In a second step, we will then investigate how these temporalities depend on the geographic context. Preliminary analyses suggest two working hypotheses: first, impacts on local contexts may be associated with shorter time horizons than global impacts; second, impacts on foreign contexts are associated with shorter time horizons whereas those on domestic contexts (U.S.) are projected further into the future.

Project Term: Summer + academic year, 2 terms

Project Location: This project will be hybrid or fully remote. There are no strict constraints around where students are. Students do not need to travel.

Ideal Applicant: Students may be involved in two broad activity areas. First and most importantly, they will help me in developing and applying an annotation scheme. Chiefly, this will involve reading climate change news with an eye on how we can formalize and classify it. This will be an iterative process in which we individually explore and annotate the data, then discuss and refine our scheme collectively. Second, depending on their coding skills, students may get involved in the technical side of things and help me implement the machine learning pipeline. A crucial part of this may be prompt engineering — the task of iteratively modifying and tweaking prompts to the language model to achieve the best results. This second part is optional, however. Overall, this project offers students a chance to learn how to think analytically about discourse and to gain hands-on experience with cutting-edge computational social science research. Ideal candidates for this position should: 1) Have a genuine interest in climate change. 2) Be motivated to read large amounts of climate change news. 3) Coding skills and an interest in computational social science are a plus, but not a prerequisite.

Number of Available Positions: Two