Computational Approaches to the Analysis of Political Narratives – Abstract

Narratives are a central device through which humans make sense of and interact with their environment. They are interpretive lenses through which experiences and complex phenomena are simplified and endowed with meaning. In the political context, they are used to affirm and persuade others of one's ideological positions. In light of the contemporary rise in populist rhetoric, the importance of understanding narratives becomes increasingly evident, in particular to better explain democracy-endangering phenomena like polarization and issue alignment. Meanwhile, the rise of digital trace data allows for a large-scale analysis of political narratives that circulate in the public sphere. This requires robust conceptual and computational frameworks, which are currently lacking.

The present thesis fills this gap by introducing an operationalization of the concept of narrative that combines computational distant reading with hermeneutical close reading in a framework we call guided close reading. Even though political narratives may not always be explicitly stated in their entirety, textual corpora are full of narrative signals. These signals consist of events, the participating actors, their relationships, and their implied goals and motives. We propose a framework to extract these signals from text using semantic parsing, and systematically re-assemble them as networks in order to make sense of the underlying narratives.

This approach is demonstrated using two case studies. First, we analyze the identity-shaping narrative of self-proclaimed climate change skeptics on Reddit. The analysis reveals how the community's identity is narrated through the antagonization of a multi-faceted out-group made of climate science, mainstream media and the political establishment, thereby revealing how climate change skepticism inserts itself into a larger narrative around the loss of individual freedom and conservative values.

In a second case study, we investigate the role of narratives in polarization and issue alignment, i.e. the correlation of opinions across issues. On a large corpus of trending topics on Twitter/X, we first show network-structural evidence for ideological polarization and issue alignment across a variety of salient issues such as Covid, Russia's attack on Ukraine, or climate change. In particular, we observe that two types of power users – influencers and multipliers – play a central role in driving this polarization. Analyzing the narratives co-constructed through the tweets reveals the central fault lines in the polarized debates, and more generally offers insights into the different interpretive lenses through which the opposing groups observe political reality.

These findings showcase the methodological power of the narrative lens for the analysis of digital traces and are a first approach to developing a framework to enable such analyses at the intersection of distant and close reading.

Keywords: Narratives, Natural Language Processing, Social Network Analysis, Machine Learning, Computational Social Science