Proposal

Alessia Rainone

CAPSTONE PROJECT PROPOSAL

Data mining and Large Language Models (LLMs) for Political and Social Sciences

Spring Term 2025

Alessia Rainone

1. Project Title

Framing Climate Discourse: How Swiss Media Portray Green Parties Over the Last Decade

2. Project Type

Research-Oriented (possible expansion to seminar paper / master's thesis)

3. Project Overview (150-200 words)

The goal of this project is to analyze media discourse on green parties in Switzerland over the past 10 years, with a focus on climate change-related topics. It is well known that the green parties in Switzerland gained a significant number of seats in the 2019 elections. In a recent seminar paper, I found that climate awareness increased substantially between 2016 and 2020. However, in the 2023 national parliamentary elections, the green parties (GPS and GLP) lost a significant number of votes, while climate awareness in Switzerland also declined.

This project aims to examine the role of media coverage in this shift, specifically how reporting on green parties and climate change has evolved over time. The core assumption is that both the quantity and framing of mainstream media discourse on these topics have changed significantly, potentially influencing voting behavior. A possible extension of this research could further explore this connection in a seminar paper.

Research Question

How has the discourse on green parties and climate change in Swiss mainstream media evolved over the past decade?

4. Data Sources

Media articles of the past 10 years of mainstream media outlets in the German part of Switzerland:

- Blick Online, 20 Minuten, Tagesanzeiger, NZZ, SRF (online),
- Filtered by the following key words: Climate - Climate change - Climate crisis - Climate protection - Global warming - Global warming - Climate policy (in German)

5. Methods and Tools

1. **API Access via swissdox.ch:** Swissdox provides access to a vast collection of media articles from Switzerland over the past 50 years.
    - **Customizable Queries:** Users can select specific media outlets for analysis, define the time period, keywords, and desired variables through the API.
    - **Free Access for Students:** Access is free for students upon submitting a project inquiry.
    - **API Access Keys:** API access keys are provided through the created project.
2. **Data Manipulation in R Studio:**
    - **Further filtering** to only (national and cantonal) politics content, as well as green parties in Switzerland
    - **Tokenization** and **Stopword** Removal
3. **ChatGPT API:**
    - Quantitative text analysis of media articles via **API connection to ChatGPT**
    - Categories (suggestion made by ChatGPT 4.0):
        - 1. Not or Minimally Climate-Related
          Articles with little to no connection to climate issues or green parties.
        2. Climate Politics & Green Parties
          Coverage of political actions, policies, and debates related to climate change, specifically involving green parties.

3. Climate Activism & Green Parties
   * Positive (*e.g., Green parties supporting scientific climate activism, successful protest movements*)
   * Negative *(e.g., Green parties criticized for supporting controversial activism, such as road blockades)*
4. Climate Science & Green Parties
   Discussion of climate science in connection with green parties (e.g., how they use scientific arguments in political discourse).
5. Public Opinion on Climate Science & Green Parties
   Polls, opinion pieces, and discourse about how the public perceives climate science and how this affects support for green parties.
6. Media Representation of Green Parties
   * Positive (e.g., electoral success, policy achievements, strong leadership on climate issues)
   * Negative (e.g., electoral losses, criticism of policies, internal conflicts)
7. Populist Climate Discourse & Green Parties (Optional for Further Research)
   How green parties are framed in populist discourse (e.g., portrayed as "climate alarmists" or as an "elitist movement").

6. Milestone Plan

1. Data acquisition completed: 26.03.2025
2. First draft of analysis or implementation: 01.04.2025
3. Key results or functional tool: 06.04.2025
4. Report structure and documentation drafted: 10.04.2025
5. Finalization and revision of report: 10.04.-17.04.2025
6. Deadline set: **17.04.2025, 14:00**

7. GitHub Plan

Folder with subfolders

00-Planning

01-Data

02-Scripts

- 00-functions

- 01-data-input

- 02-prep-data

- 03-analysis

03-Output

04-Junk

05-Report

8. Anticipated Challenges

- API-Connections on Swissdox and ChatGPT
  - Swissdox: completed.
  - ChatGPT: to be done.

9. Expected Output

The expected outcome of this project is a report analyzing media discourse on green parties in Switzerland over the past decade. The initial goal is to collect relevant data and systematically categorize the media articles based on their framing of green parties and climate-related topics. The report will include an overview of trends in media coverage, key findings from the categorization process, and potential insights into how media discourse has evolved over time.

10. LLM Use Declaration

I will use ChatGPT-4.0 as an assistant for coding tasks and, ultimately, for the categorization of media articles. The model will help process large amounts of text data, identify relevant themes, and classify articles according to predefined categories.