

Master/semester project

Echo chambers: Towards an automated, real-time analysis of parliamentary debates

Description of research: Established explanations for policy change that investigate the adoption of new laws by the government emphasize that politicians are responsive to voters' preferences. According to this reasoning, voter preferences are reflected in parliamentary debates before parliamentarians vote for or against adopting new bills. However, alternative explanations suggest that parliaments may operate as "echo chambers" that reinforce certain arguments leading to cascades of positive or negative arguments. Such mutually reinforcing or undermining forces may be driven by powerful actors in the discourse that leads to endogenous network effects. Theoretically, this master/semester project could investigate the role of power, shared parliamentary commissions of the politicians or lobbying connections to understand how positive or negative arguments emerge and proliferate.

Methods: Empirically, this master / semester project may apply methods at the intersection between natural language processing, including supervised or unsupervised machine learning, network analysis, and, potentially, sentiment analysis to uncover these dynamics. Natural language processing could empower near-real-time monitoring of the argumentative positions of parliamentarians. Network methods, either descriptively or network modelling, could be fruitfully applied to investigate the evolution of coalitions favoring and opposing policy changes over time. Parliamentary transcript data and voting data is available in a well-structured and machine-readable format.

Potential implications: Results may have important implications for how we think about policy change. Parliamentary Echo chambers may be a key alternative explanation for policy change. Near real-time monitoring may, in turn, inform the science-policy interface. Researchers at the Laboratory on Human-Environment Relations in Urban Systems are currently setting up such a platform to foster dialogue between scientists in different disciplines, public authorities, interest groups and political parties and members of parliament.

Requirements: Programming knowledge with the statistical software R and/or Python for natural language processing is required. Familiarity with network methods is a plus.

Starting date: Between June 2024 and September 2024

Duration: 1-2 semesters

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