

# Assessing information flows from think tanks and interest groups to politicians

*Keywords:* Information, politician, non-state actor, sentence-BERT, social network analysis.

## Extended Abstract

Who informs politicians? Politics and policy making is complex and politicians often need to consider many policy issues in parallel while lacking access to research-based expertise on the topic. Interest groups and think tanks on the other hand will often have more narrow issue portfolios and experts on staff making them better informed in their niches than politicians (see Esterling 2004, 9). Indeed, recent American scholarship shows that the use of expert actors from e.g., think tanks as witnesses in congressional committees has increased steadily since 1960 (Ban et al. 2022, 6). Similarly, a Scandinavian literature has amply studied access and representation of different kinds of actors to and in government committees (Binderkrantz & Christiansen 2015, Binderkrantz et al. 2014). The study of how politicians are informed is particularly pertinent in light of the proclaimed ‘revival of parliament’ where parliaments are gaining power vis-à-vis the executive branch (Christiansen & Rommetvedt 1999, Rommetvedt et al. 2012). Under these conditions of strong parliaments, getting the ear of politicians is a vital source of influence for interest groups and think tanks.

Theoretically, we present a two-pronged argument that who politicians choose to be informed by is a function of their party affiliation. First, we theorize that it matters whether their party is the government incumbent or the main opposition alternative. Specifically, we argue that the politicians from the governing parties and the main opposition parties will be informed more by interest groups than by think tanks. This is theorized to be a result of both historical ties between business (labor) and the right-leaning (left-leaning) mainstream parties and the fact that interest groups represent constituents which think tanks generally do not. We further expect politicians from government parties to be informed by a more inclusive set of interest groups than politicians from the main opposition parties who will tend to stick to their historic allies. Second, we argue that politicians from smaller parties that do not court to being part of the government are less constrained in who they let themselves be informed by. Thus, think tanks will have better chances of successfully informing politicians from these parties.

To test the theoretical argument we focus on Denmark in 2018 which is the most recent non-election, pre-Covid-19 year. We sample a total of eight organization—four prominent think tanks and four large interest groups—and collect all press releases available on their websites. On the politician-side we use the ParlSpeechV2 dataset which contains transcripts of all parliamentary speeches in the Danish Parliament (Rauh & Schwalbach 2020).

Methodologically, we present an intuitive modeling approach that combines state of the art tools from natural language processing with social network analysis. Most generally, our approach can be seen as consisting of a text classification step which forms the basis of a subsequent network modeling step. Specifically, we infer that information has flown from a press release  $A$  to a politician’s speech  $B$  (and hence construct the edge  $A \rightarrow B$  in a bipartite network with press releases in one vertex partition and parliamentary speeches in the other) if and only if  $A$  and  $B$  contain semantically similar sentences and  $A$  is published temporally closely before

*B* is uttered in parliament. Thus, a methodological challenge is that we will be comparing written text (press releases) to spoken text (transcripts of parliamentary speeches). Given that the vocabulary etc., generally tends to differ between written and spoken text, a standard text-reuse approach would not suffice for the present purpose. Instead we use a variety of Bidirectional Encoder Representations from Transformers (BERT) which has been specifically pre-trained to detect *semantic* similarity between sentences (Reimers & Gurevych 2019). In brief, this approach entails encoding each sentence in a semantic vector space and then use cosine similarity on the sentence-vectors to detect semantically similar sentences since these will be closer together in the semantic vector space. To choose an appropriate cosine similarity threshold we have hand coded a random subsets of the data and use this coding as the ground truth against which the performances of different thresholds were assessed. This procedure resulted in the choice of a cosine similarity threshold of 0.7. To further increase the accuracy of the results, we will use a simple heuristic based on sentence length to eliminate false positives in the form of parliamentary speech sentences that cannot logically have been informed by press releases.

While we use this approach to specifically study the information flows from non-state interest actors to politicians, the approach is generalizable. With minor modifications to the network structure (such as to its partiteness) it is possible to study information flows between and within groups of a plethora of different political, societal, and/or social actors.

## References

- Ban, P., Park, J. Y. & You, H. Y. (2022), ‘How Are Politicians Informed? Witnesses and Information Provision in Congress’, *American Political Science Review* pp. 1–18.
- Binderkrantz, A. S. & Christiansen, P. M. (2015), ‘From Classic to Modern Corporatism. Interest Group Representation in Danish Public Committees in 1975 and 2010’, *Journal of European Public Policy* **22**(7), 1022–1039.
- Binderkrantz, A. S., Christiansen, P. M. & Pedersen, H. H. (2014), ‘Interest Group Access to the Bureaucracy, Parliament, and the Media’, *Governance* **28**(1), 95–112.
- Christiansen, P. M. & Rommetvedt, H. (1999), ‘From Corporatism to Lobbyism? Parliaments, Executives, and Organized Interests in Denmark and Norway’, *Scandinavian Political Studies* **22**(3), 195–220.
- Esterling, K. M. (2004), *The Political Economy of Expertise: Information and Efficiency in American National Politics*, The University of Michigan Press, Ann Arbor, MI.
- Rauh, C. & Schwalbach, J. (2020), ‘The ParlSpeech V2 Data Set: Full-text Corpora of 6.3 Million Parliamentary Speeches in the Key Legislative Chambers of Nine Representative Democracies’, *Harvard Dataverse* pp. 1–14.
- Reimers, N. & Gurevych, I. (2019), Sentence-BERT: Sentence Embeddings using Siamese BERT-Networks, in ‘Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing’, Association for Computational Linguistics.  
**URL:** <https://arxiv.org/abs/1908.10084>
- Rommetvedt, H., Thesen, G., Christiansen, P. M. & Nørgaard, A. S. (2012), ‘Coping With Corporatism in Decline and the Revival of Parliament: Interest Group Lobbyism in Denmark and Norway, 1980-2005’, *Comparative Political Studies* **46**(4), 457–485.