

Polarization of Climate Change Politics During Finland's 2019 Parliamentary Elections: Evidence from Twitter

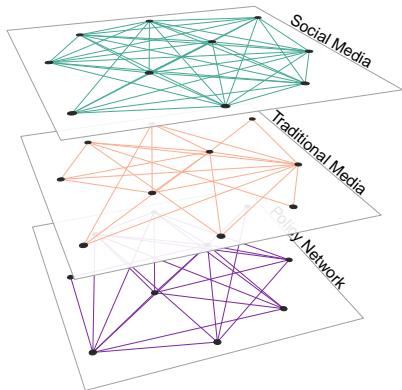
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Echo Chambers, Experts and Activists: Networks of Political Communication (ECANET)



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Climate Change Politics and Polarization in Finland

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- ▶ Recent empirical trends suggest this is changing. Why?
- ▶ Is there increased polarization? and what is driving it?
 - ▶ Political versus non-political issues
 - ▶ Electoral politics
 - ▶ Social media?

Empirical Approach

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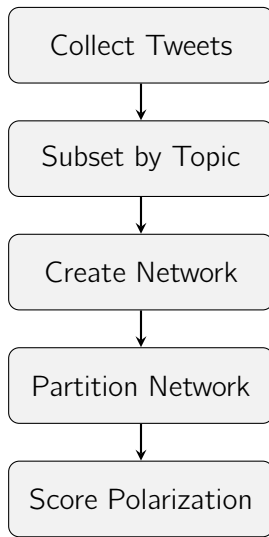
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- ▶ Are there filter bubbles in communication?

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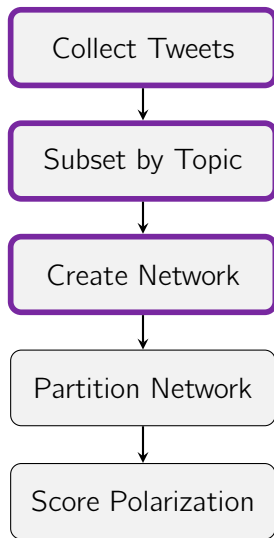
Is there increased polarization in Finland? and what is driving it?

- ▶ Examine political communication via social media
- ▶ Are there filter bubbles in communication?
- ▶ Quantify the extent to which communication is polarized
- ▶ Compare patterns across topics and time

Empirical Approach: Pipeline



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Data Collection and Processing

- Tweets were collected during Jan. 20 - Apr. 14 using a list of politically relevant hashtags

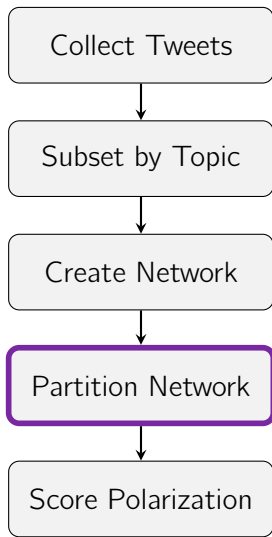
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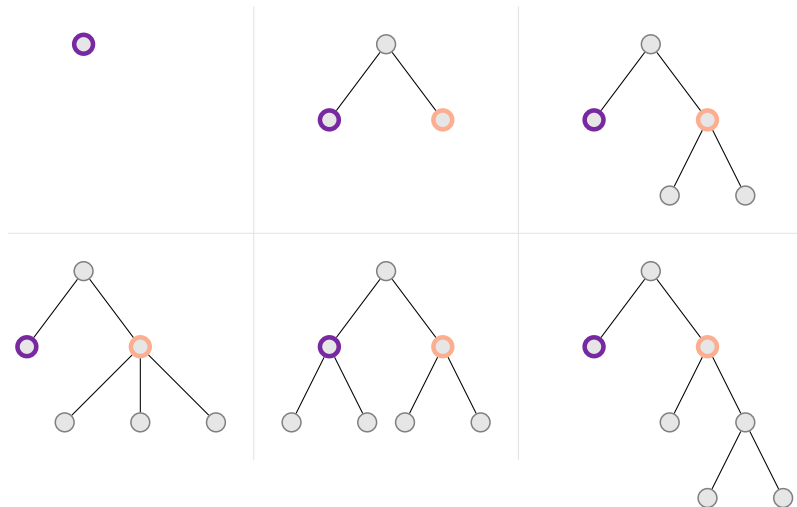
- ▶ Tweets were collected during Jan. 20 - Apr. 14 using a list of politically relevant hashtags
- ▶ Subset tweets by topics and by time
- ▶ Create retweet networks:
 - ▶ Nodes are Twitter accounts
 - ▶ Unweighted ties are presence of a retweet between the two accounts on the topic of interest

Network Partitioning

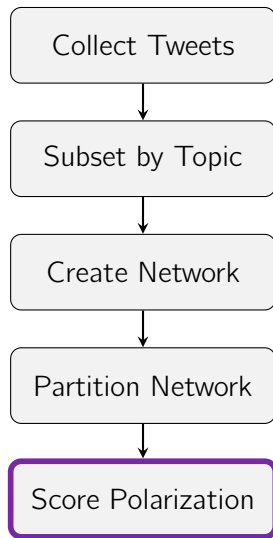


Network Partitioning

Different stochastic block model specifications



Random Walk Polarization

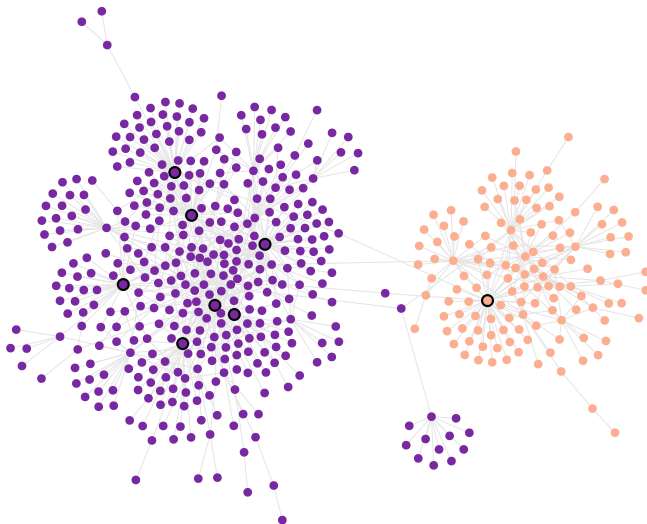


Random Walk Polarization

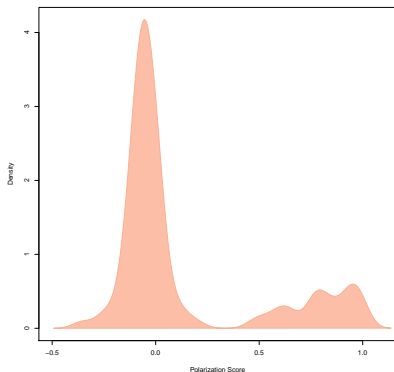
How likely is information to reach across partitions?

Random Walk Polarization

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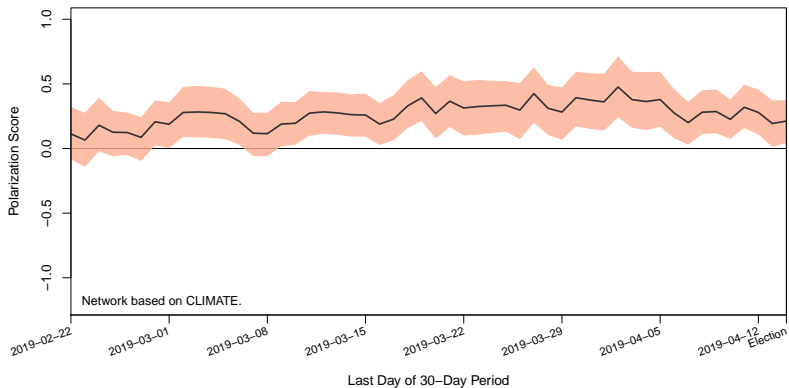
Results: Distribution of Topic Polarization



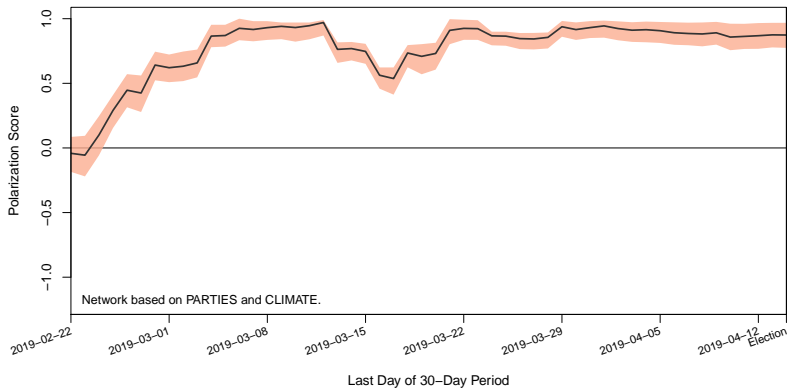
Ten Most Polarized Hashtags

social democrats	future line
climate march	hate speech
populist party	freedom of speech
left party	same direction
oulu	green party

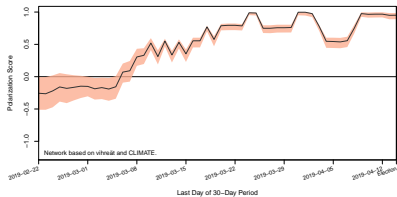
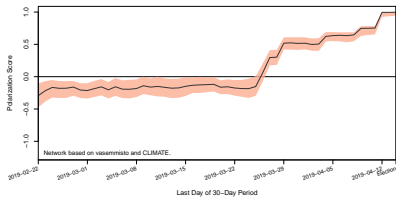
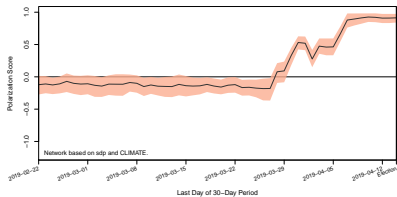
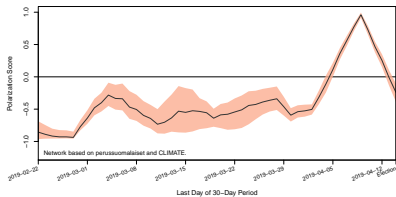
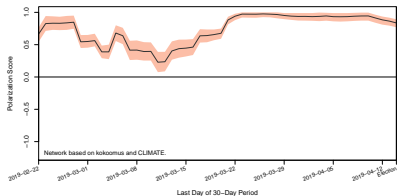
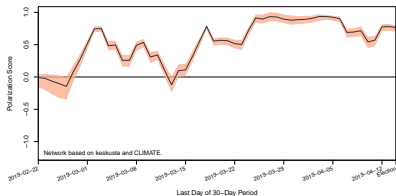
Results: Climate



Results: Overlapping Climate and Parties



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The code used in this project will be available after this presentation at
https://github.com/tedhchen/twitter_network_polarization_tools

The slides will be available at
https://tedhchen.com/assets/compon_slides.pdf

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