



Sentiments, Topical Mismatches and Polarization around COVID policy announcements in the UK

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Research Questions

Sentiment analysis

What were the proportions of positive, negative and confused sentiments towards key UK COVID-19 policy announcements?

Topical classification

What were the topics most concerned by the public in reaction to each significant policy announcement?

Comparative analysis

To what extent were these topics of high public concern included or excluded by the policies themselves, thereby suggesting gaps between policies and the public?

Methods

Topic classification and comparison:

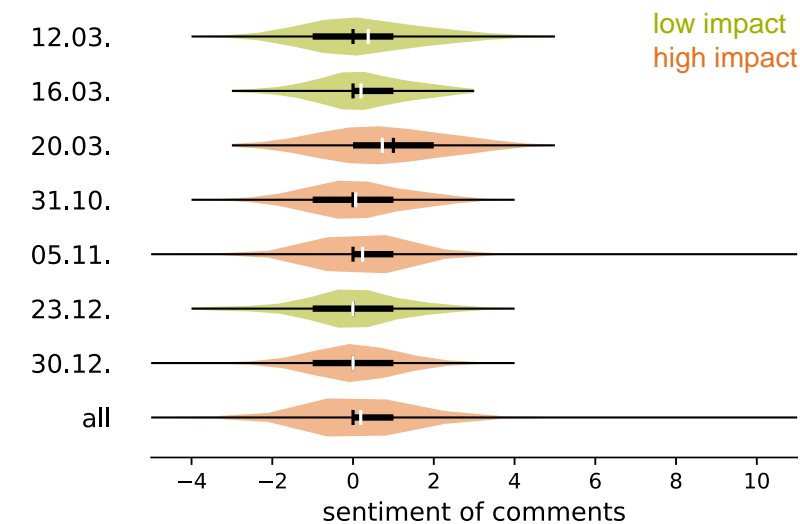
- Dictionary with four categories of keywords, cross-validated by speeches dataset.
- Text processing: lowercasing, removing stop words and punctuation, stemming.
- Dictionary analysis in both count and proportion → map the emphases per topic per data set
- specific keyword-in-context analysis

Sentiment analysis:

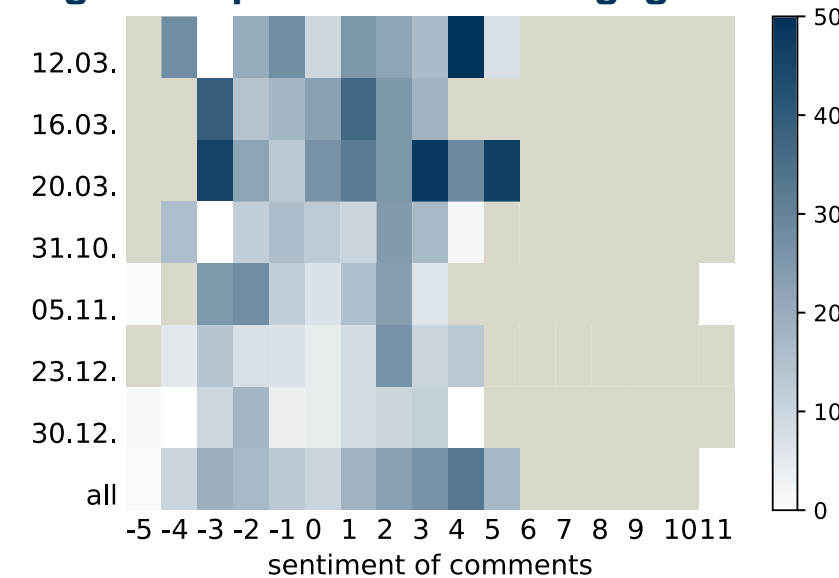
- Lexicoder Sentiment Dictionary (2015)
- Bag-of-words dictionary, designed for news coverage, legislative speech and other texts
- Same preprocessing

Policy Impact → Negative Reaction?

- Sentiments of comments never negative on average (median too)
- Analysis limited as only part of the comments where scraped
- Positive comments seem to have gotten more engagement → data set biased



Negative Opinion → More Engagement?



- Neutral comments have smallest engagement

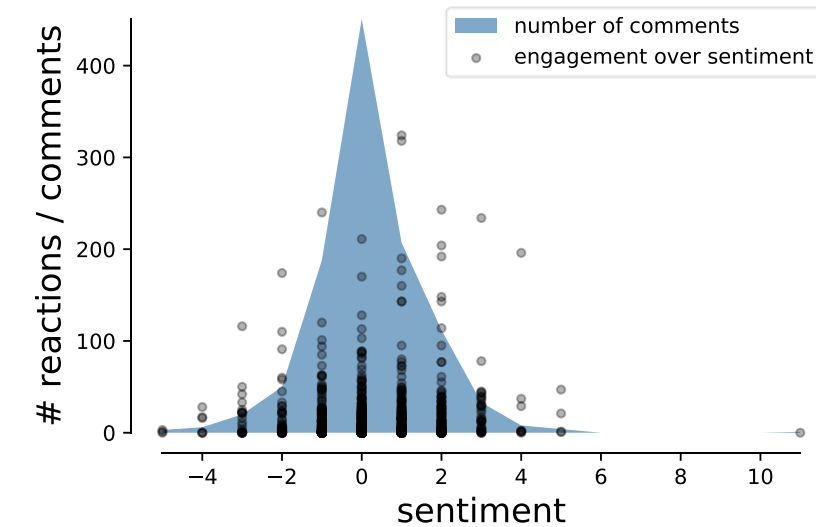
Data

A subset of U.K. government COVID-19 press conferences. Analyzed via:

- Transcripts of speeches
- The “most relevant” comments under the FB live stream (120-200 out of average 6.5K comments)

Hypotheses

- High impact policy announcements link to stronger negative reaction in public opinion
- There is a mismatch between topics the public is concerned about and topics addressed policy announcements.
- Public comments containing extreme ideas and negative sentiment received more engagement than comments of positive sentiment.



Negative comments have slightly less engagement than positive ones

- Most comments are relatively neutral (sentiment $\in [-1, 1]$)

Topical Mismatch

- Dictionary analysis with policy keywords
- Limitation: only comments with high engagement – representative?
- Categories:
 - Restriction of Movement
 - Education
 - Healthcare
 - Economy
- Mismatch 6 / 7 cases
- Match: Education on Dec 30, deeper analysis shows comments disagreed with school-related measures announced

		Dictionary Categories			
Dates	Data	Restriction	Education	Healthcare	Economy
Mar 12	Speech	5	3	8	0
	Comments	13	73	13	8
Mar 16	Speech	4	0	7	0
	Comments	13	60	18	8
Mar 20	Speech	4	0	6	1
	Comments	17	7	4	19
Oct 31	Speech	13	12	14	6
	Comments	29	66	15	6
Nov 5	Speech	9	1	13	3
	Comments	30	100	11	8
Dec 23	Speech	18	0	28	0
	Comments	29	22	14	6
Dec 30	Speech	2	23	8	0
	Comments	45	122	32	5