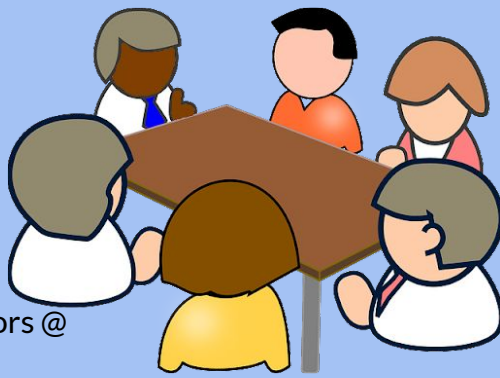


Claim detection for democratic news recommendation: reproduction shows heterogeneity over topics.



OpenClipart Vectors @ Pixabay

Viewpoints in the news: claim detection for diverse news recommendation

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INTRODUCTION

- Democratic news recommendation: **deliberation or discussion of “viewpoints”** in the public sphere (Helberger, 2019).
- **Operationalizing “viewpoints”**, with different NLP tasks (Reuver et. al., 2021), such as stance detection and opinion mining. Democratic theory allows us to think **beyond task definitions**.
- Now: **reproduction of Reimers et. al. (2019)** on claim detection

METHOD

- 8 topics from (U.S. focussed) political public debate (abortion, gun control, etc), in 3 claim categories (pro, con and unrelated)
- BERT-base classifier **fine-tuned on 7 topics, tested on 8th topic, averaged over 10 seeds.**

	Reimers (2019) averaged 10 seeds	Reproduction averaged 10 seeds	SVM for features
accuracy	<i>unreported</i>	.69	.61
F1	.61	.62	.52

Tabel 1: results reproduction

RESULTS

- **heterogeneity in performance over topics and seeds** originally unreported (see confusion matrices)
- Feature analysis

DISCUSSION/CURRENT WORK

- Generalizability
- **Unique features in some topics or claim categories?**

trained on..	For (vs Against)	Against (vs For)
abortion (model perf on abortion validation set: acc. 0.70, F1 (macro): .58)	seek illegal reproductive simply humane bear lifers mother healthy lives	babies abortion life conception simply risks abortions complications birth kill

Tabel 2: pairwise feature analysis with SVM: top 10 predictive words

References

Helberger, N. (2019). On the democratic role of news recommenders. *Digital Journalism*, 7(8), 993-1012.

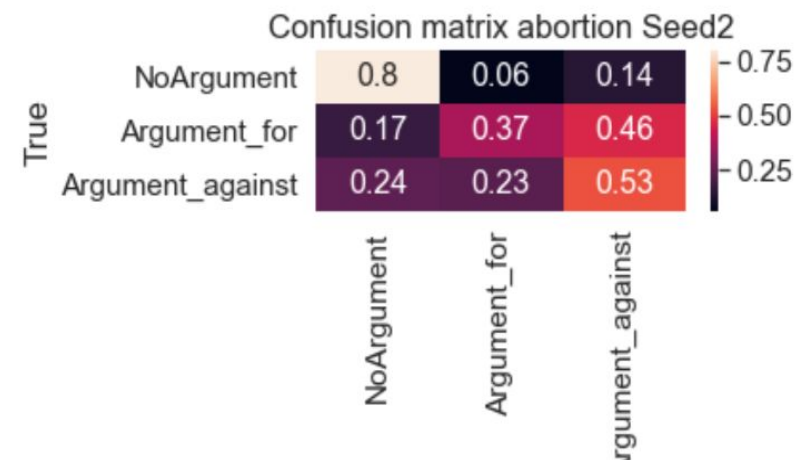
Reuver, M., Fokkens, A., & Verberne, S. (2021, April). No NLP Task Should be an Island: Multi-disciplinarity for Diversity in News Recommender Systems. In *Proceedings of the EACL Hackashop on News Media Content Analysis* (pp. 45-55).

Reimers, N., Schiller, B., Beck, T., Daxenberger, J., Stab, C., & Gurevych, I. (2019, July). Classification and Clustering of Arguments with Contextualized Word Embeddings. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics* (pp. 567-578).

BERT reproduction

abortion: hard to classify

(% of true, rounded confusion matrix)



minimum wage: easier

(% of true, rounded confusion matrix)

