

One Million Posts

chrsteck, dominikmn, lima-tango

Agenda

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Project background

Exploratory Data Analysis

Modeling

Future Work

Der Standard



Wie der Grüne ... im Sommer den Urlaubsspaß ... machen soll

Durch die Corona ... innersuropäisch die Grenzen hochfahren. Ein

1.313 Postings

Jeder User hat das Recht auf freie Meinungsäußerung.

→ Ihr Kommentar

1 > >I

1 bis 25

Alle Postings (1313)

neueste

kaiserfranz#5 Im Zweifel... Sarkastisch! 3 vor 3 Minuten

0 1

"Die EU-Kommission betont, dass das DGZ nicht diskriminierend sein soll."

Fühlt sich aber so an... und da frag ich jetzt die u16 und aus medizinischen Gründen gar

Task

Help the moderators:

- Detect hate speech
- Find posts that require an answer

Dataset

- >1 Million user posts from 'Der Standard'
- 11 k labeled posts
- 9 labels
 - Arguments used, discriminating, inappropriate, off topic, personal stories, possibly feedback, sentiment negative/neutral/positive
- 3,599 posts annotated in all labels
- Extra annotations for personal stories and possibly feedback

Dataset

Annotation procedure:

- round 1: dry-run, not in dataset
- round 2: 1,000 posts, **randomly** selected
 - from 903 articles
- round 3: 2,599 posts (+ extra), sampled to increase minority class samples
 - from **10 articles**
 - Article topics: Women/feminism, refugees, Israel and Palestine

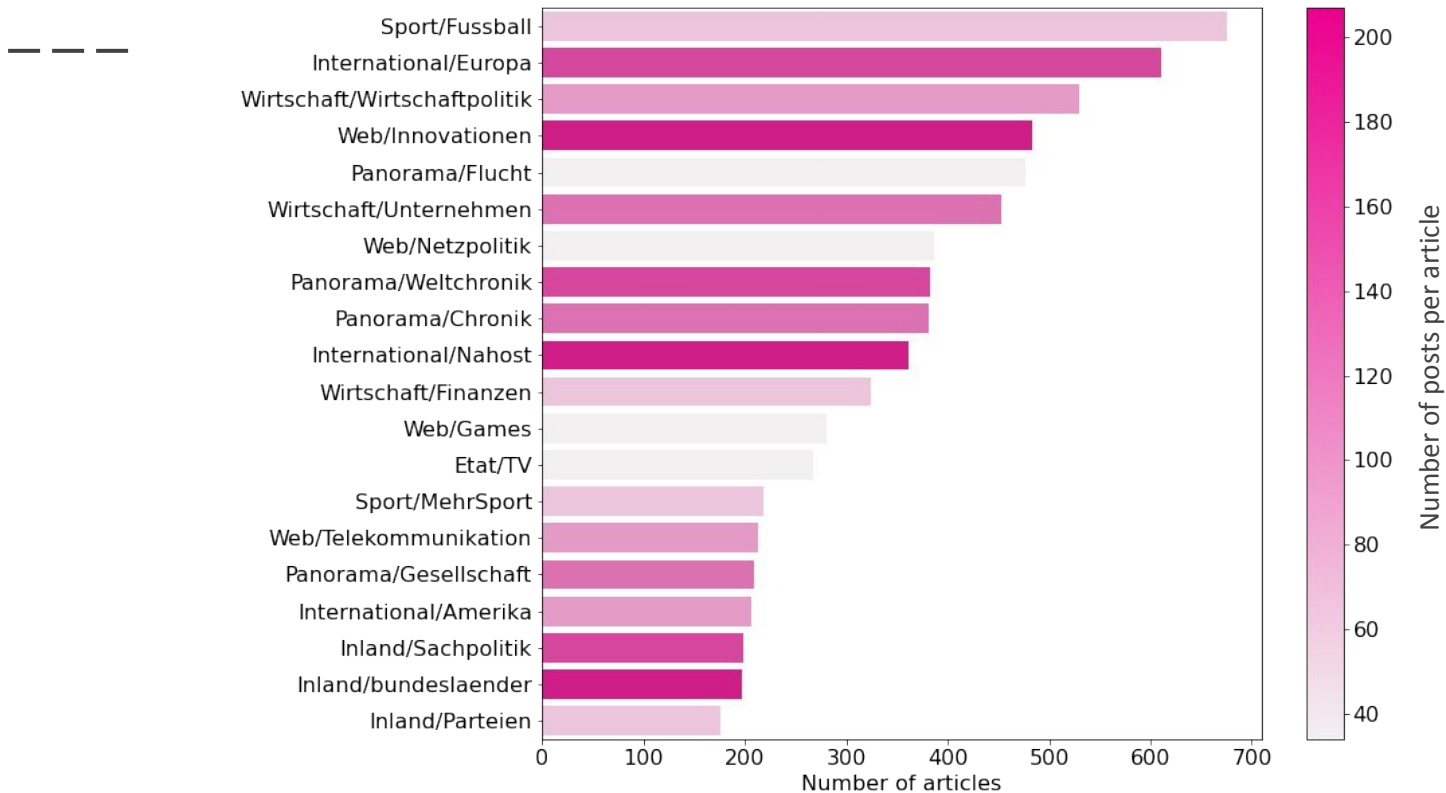
EDA

Exploratory Data Analysis

1. From which categories are most of the articles?
2. What are typical words for the labels?
3. How many positive annotations are there per label?

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EDA - Top categories by number of articles



EDA - Typical words for the labels



Sentiment negative - Annotation round 2



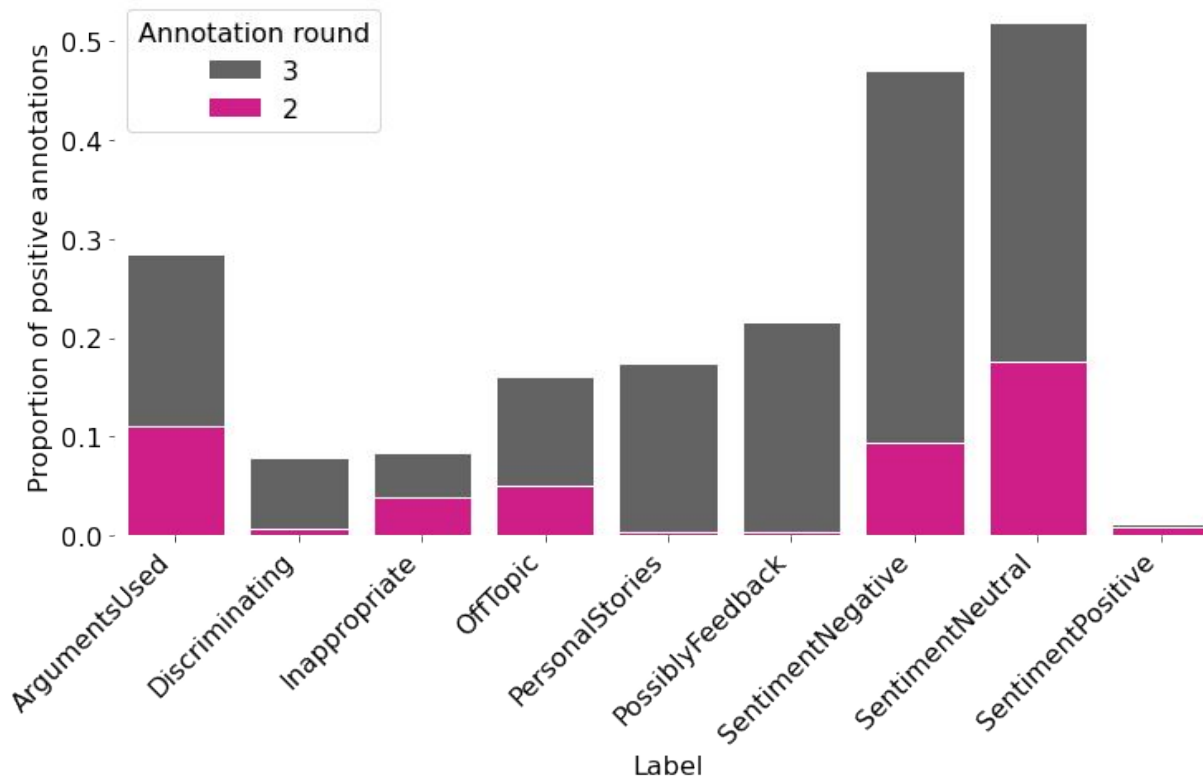
Biased towards

- women/feminism
- refugees
- Israel/Palestine

EDA - Positive annotations per label

Round 2: Randomly selected posts represent label frequency in population.

Round 3: Sampled to increase frequency of rare labels.



Modeling

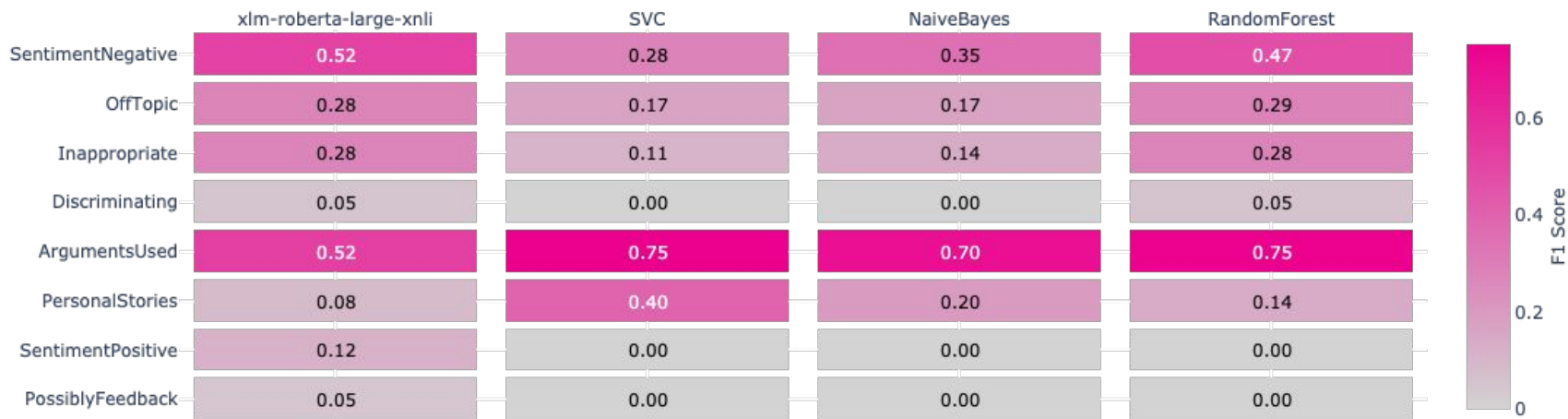
- Train-test-validation split on posts annotated in round 2
- First modeling approaches

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Modeling - F1 scores

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Based on round 2



Future Work - Modeling

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Improved data balance

Advanced preprocessing and feature engineering

Additional models:

- XGBoost
- Neural Networks

Future Work - Dashboard

Predict labels for a
new post

Please insert your post

<Text field>

label 1	<div></div>
label 2	<div></div>
label 3	<div></div>
label 4	
label 5	
label 6	
Sentiment	<div></div>

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<https://github.com/dominikmn/one-million-posts>