Classifying Headlines

Harry Chirayil Christopher Keim Stefan Schmutz

Can we predict the source of a News Headline?



Dramatische Rettung bei der härtesten Segelregatta der Welt ???



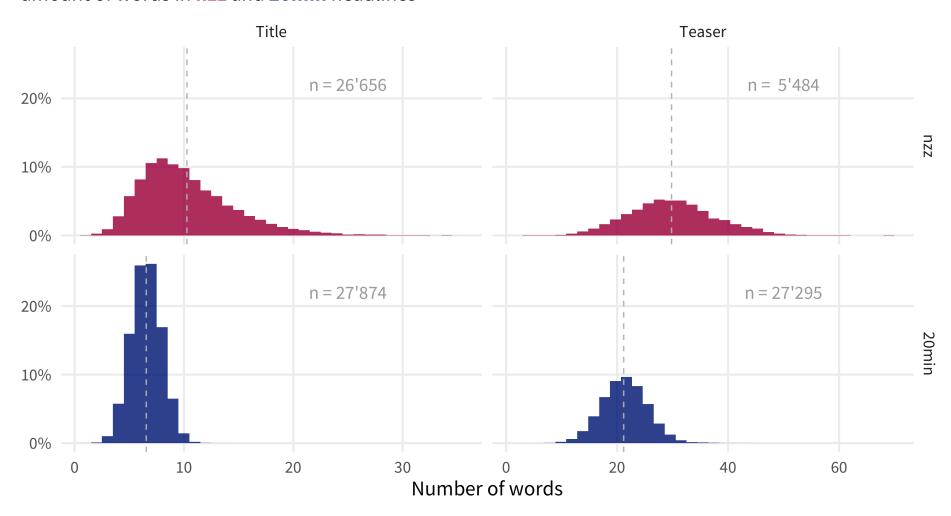
Künstliche Intelligenz sagt erfolgreich voraus, zu welcher Struktur sich Proteine falten ???

Neue Zürcher Zeitung



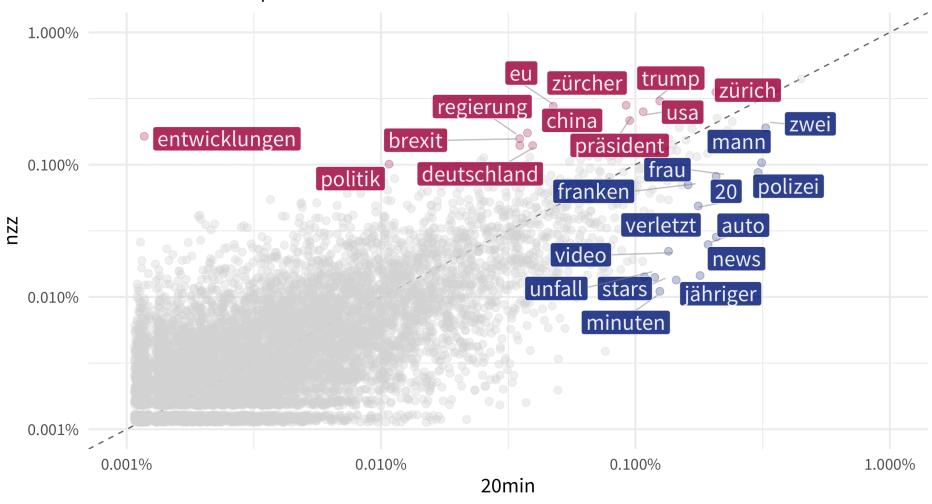
Headline length distribution

amount of words in **nzz** and **20min** headlines



Proportion differences

reveal words which are more prevalent in **nzz** or **20min** headlines



Multinomial Naïve Bayes

Document Term Matrix

Documents



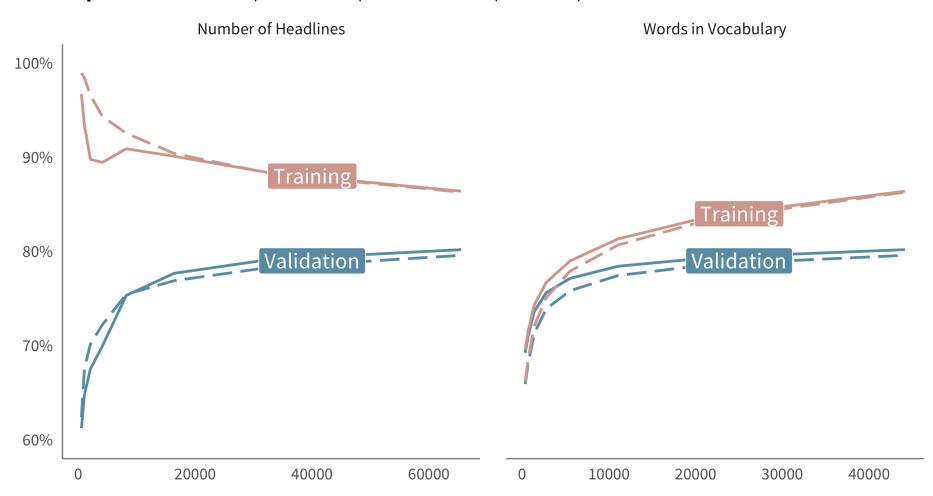
| | Word 1 | Word 2 | Word 3 | • • • | Word n |
|------------|--------|--------|--------|-------|--------|
| Headline 1 | 0 | 1 | 1 | | 0 |
| Headline 2 | 1 | 0 | 0 | | 0 |
| Headline 3 | 2 | 0 | 3 | | 1 |
| ••• | | | | | |
| Headline m | 1 | 1 | 0 | | 0 |





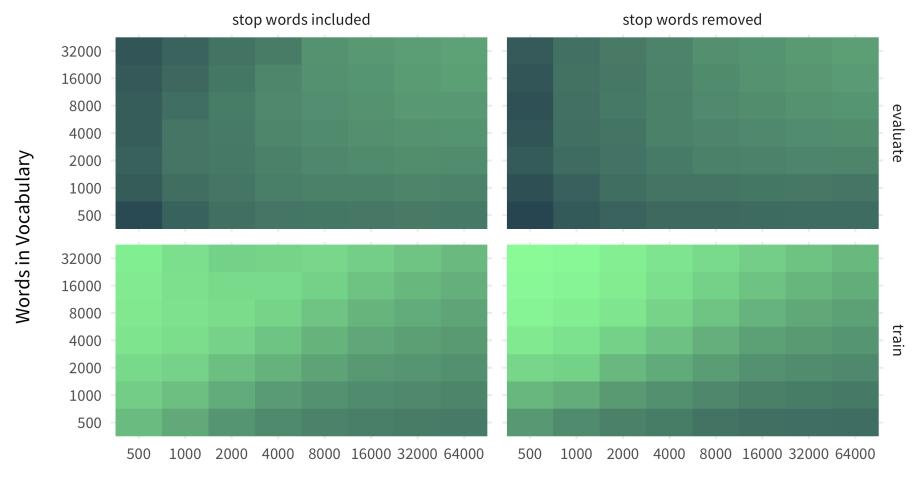
10-Fold Cross Validation Accuracy

with **stop words removed** (dashed line) and **included** (solid line)



Appendix

10-Fold Cross Validation Accuracy



Number of Headlines

