

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*

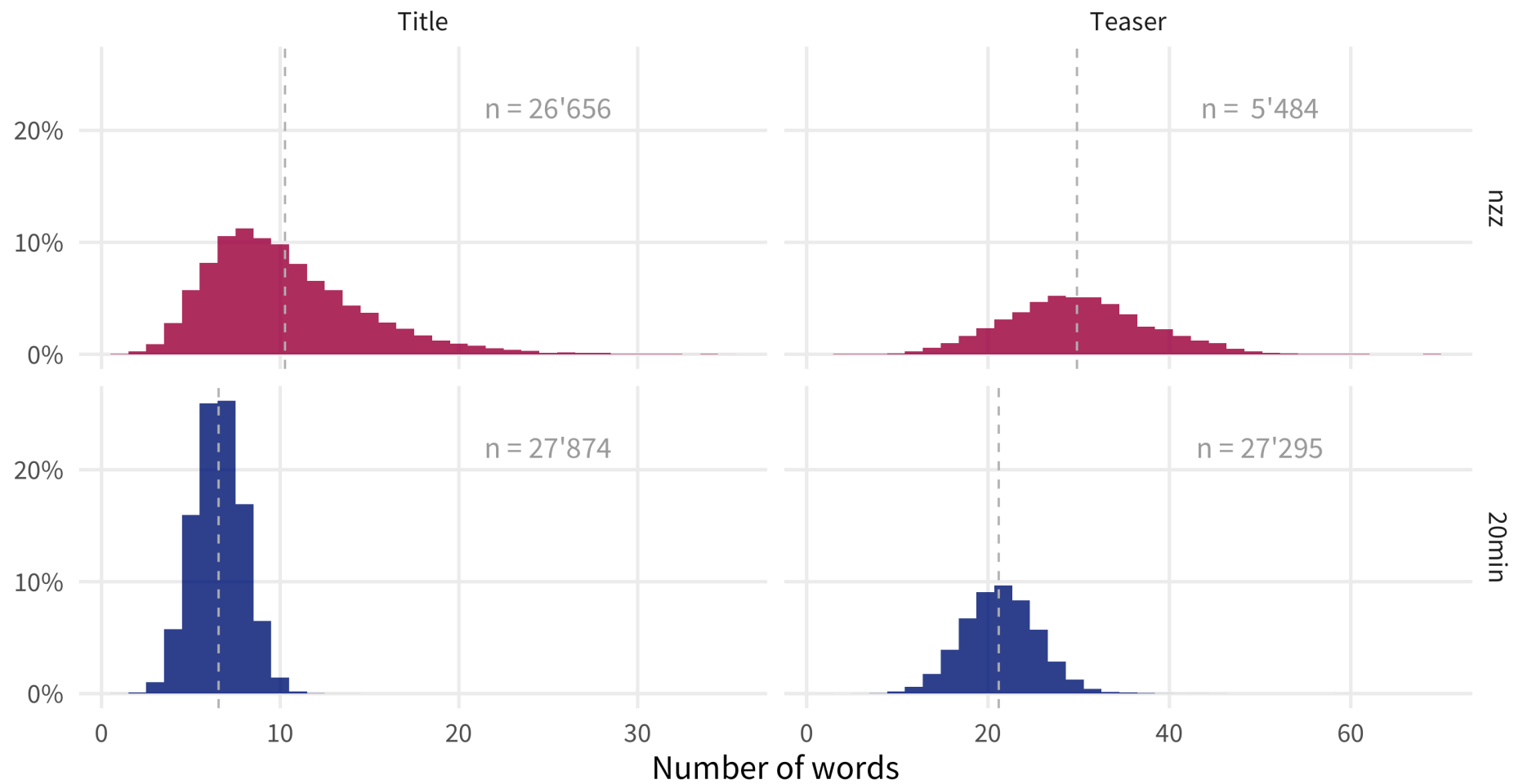
???

Neue Zürcher Zeitung



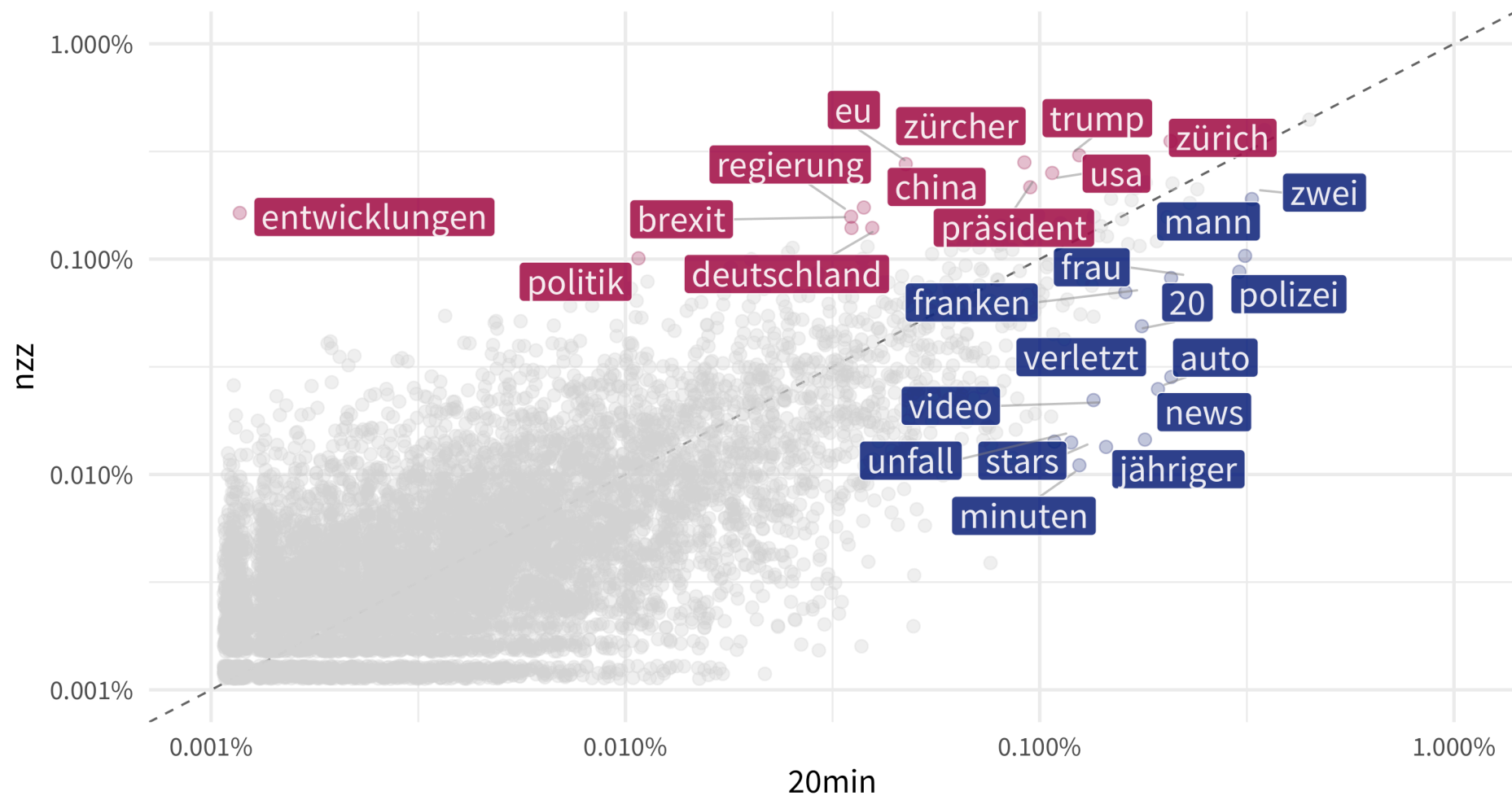
Headline length distribution

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



Proportion differences

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

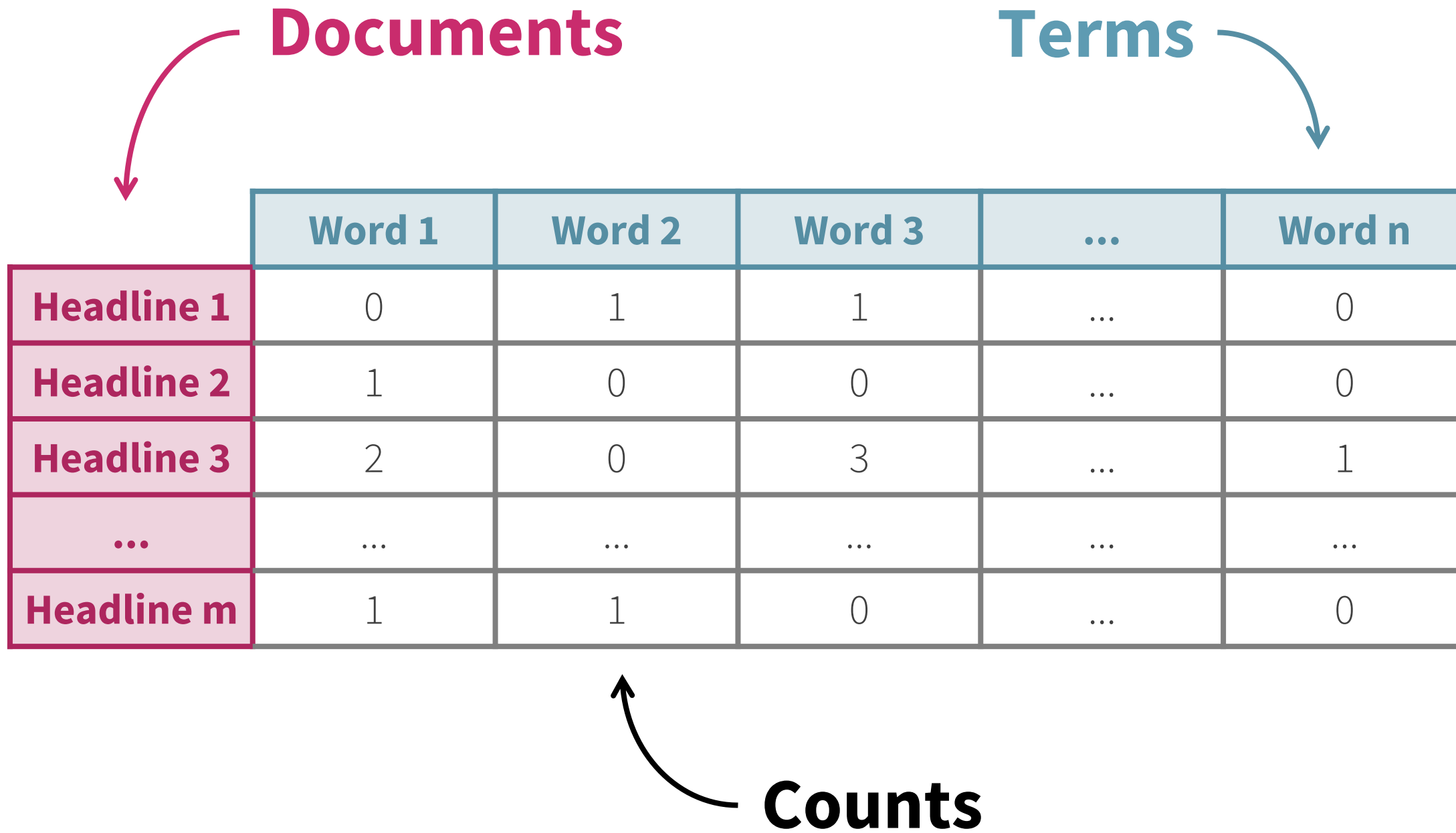


Multinomial Naïve Bayes

Document Term Matrix

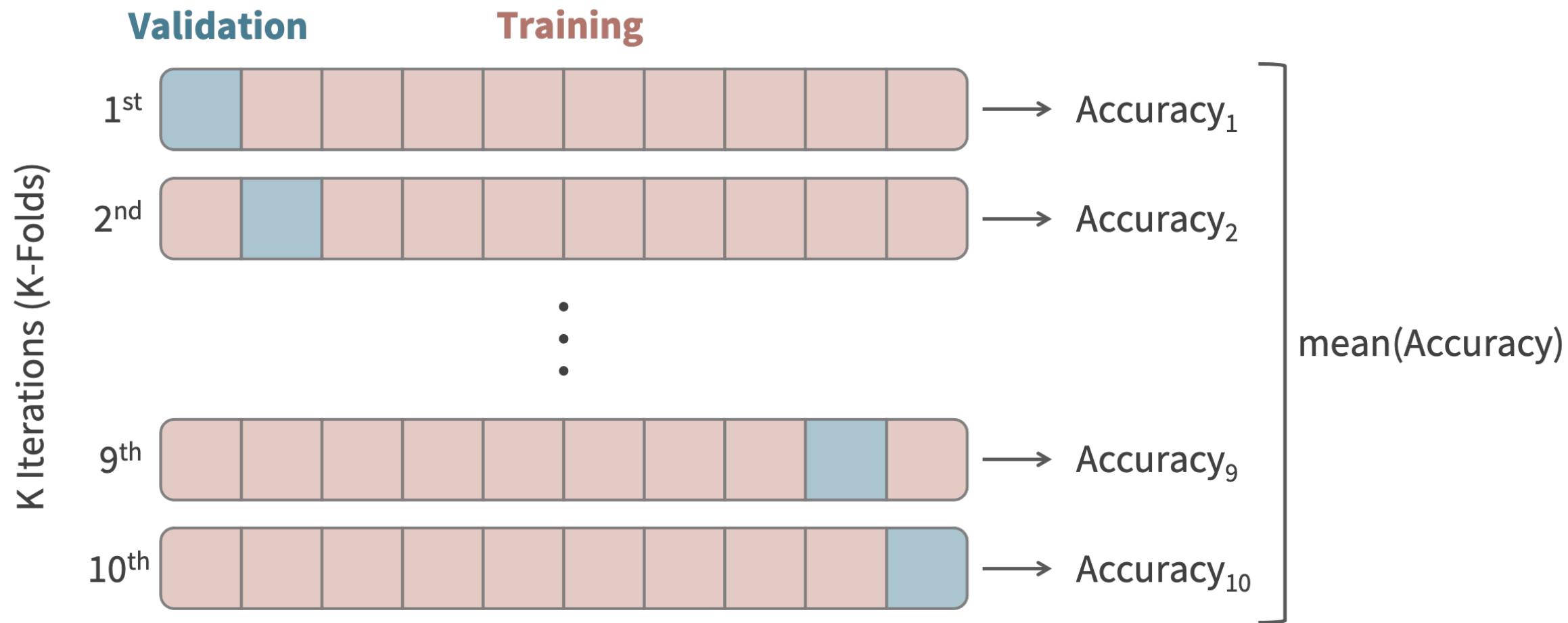
Documents

Terms



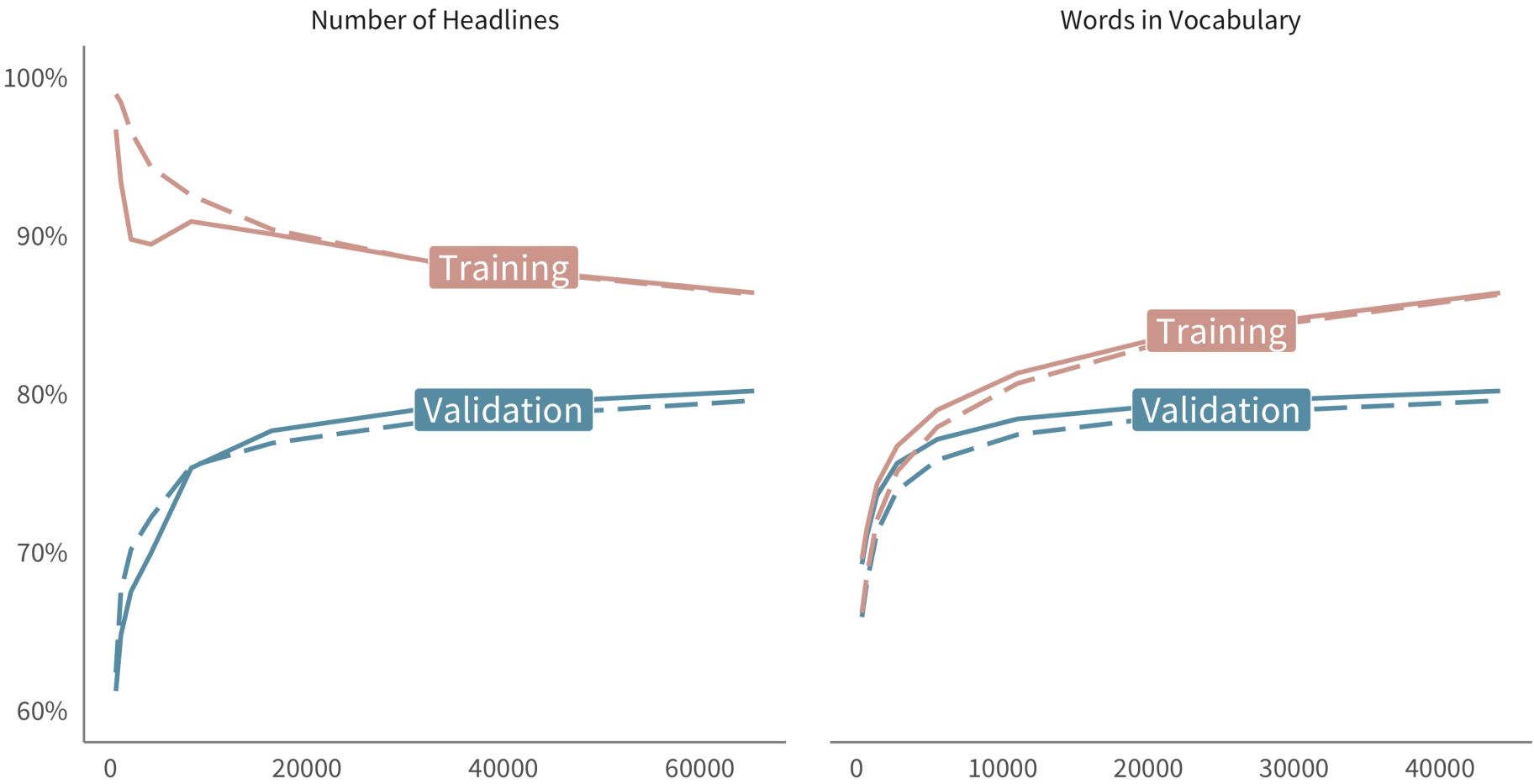
	Word 1	Word 2	Word 3	...	Word n
Headline 1	0	1	1	...	0
Headline 2	1	0	0	...	0
Headline 3	2	0	3	...	1
...
Headline m	1	1	0	...	0

Counts

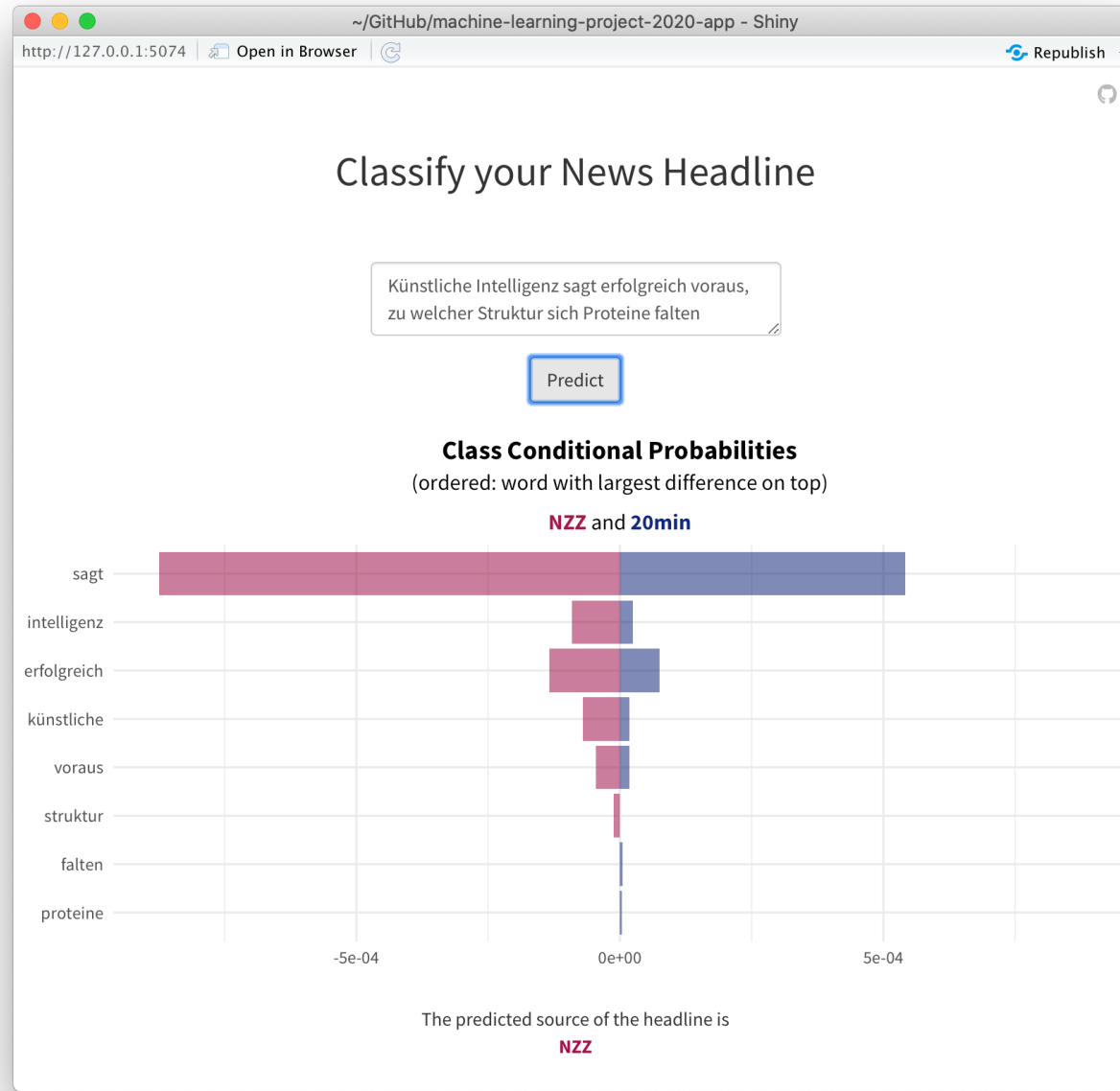


10-Fold Cross Validation Accuracy

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



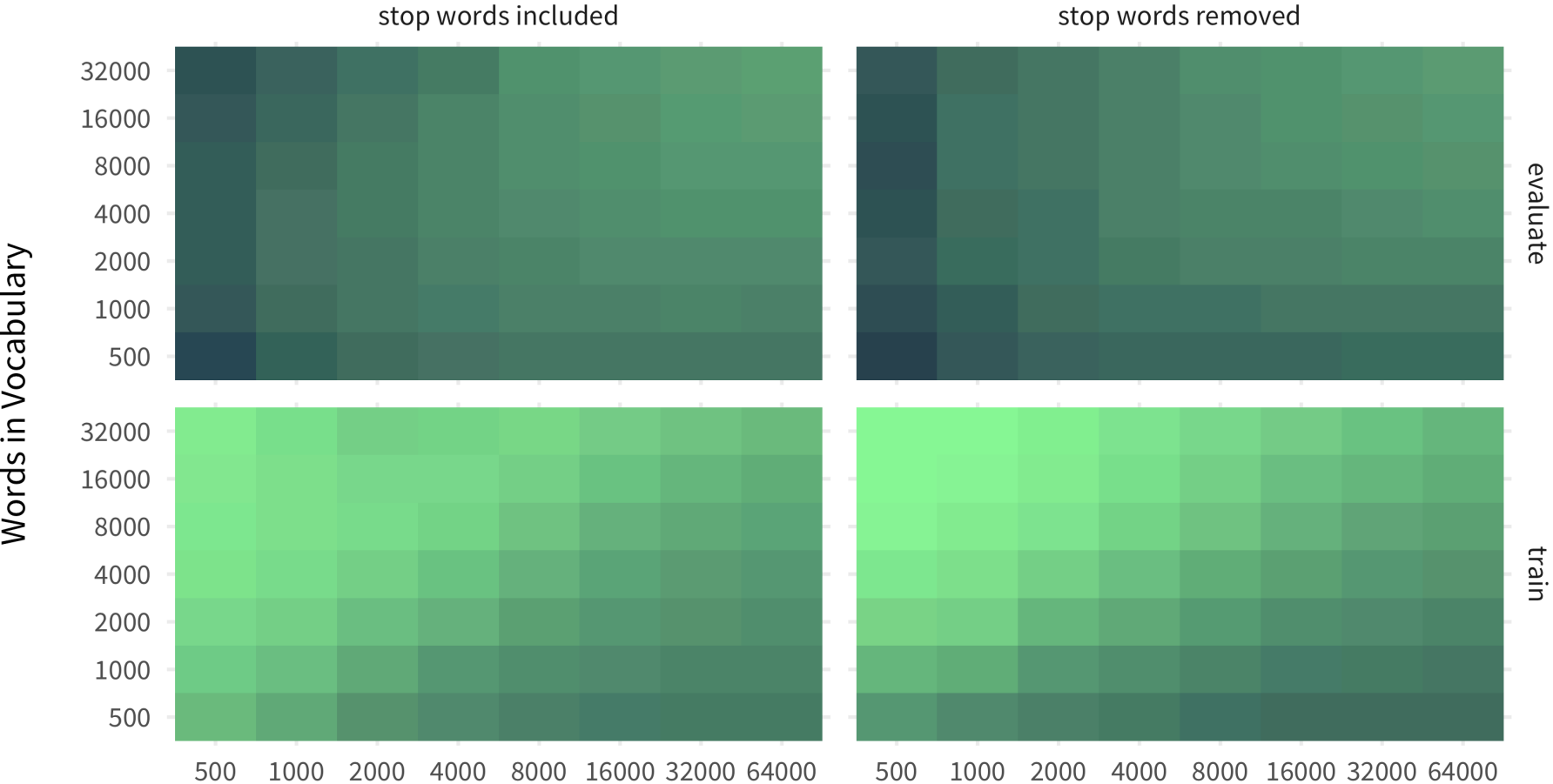
TODO: Insert performance numbers of the test set (confusion matrix and accuracy)



bit.ly/classify-headlines

Appendix

10-Fold Cross Validation Accuracy



Number of Headlines

