

What Makes A Good TED Talk?

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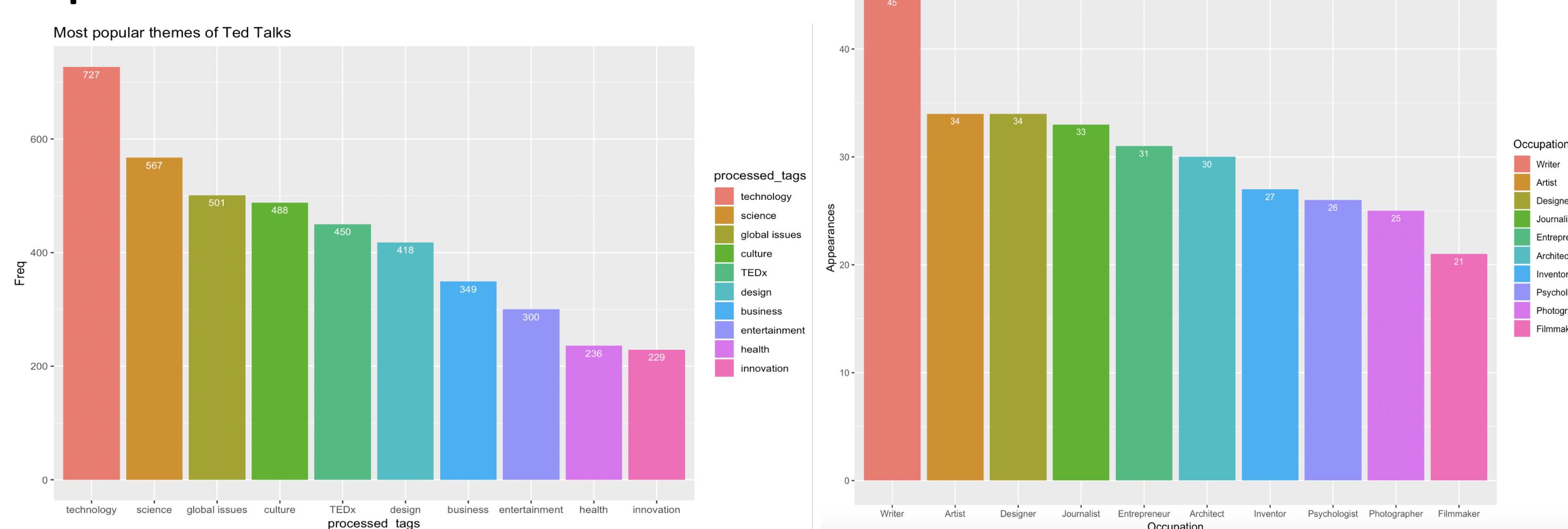
Introduction

Motivation:

- Deduce the elemental reason why TED talks are considered the benchmark for influential speeches. What makes them so special?
- Sentiment analysis and emotional introspection of over 2500 TED talks conveys the uniqueness of the expert speakers and the trends in their speeches, giving an insight into the psyche of successful minds.

Key methods: Sentiment analysis, network analysis, text mining, content similarity, topic modelling, LDA, K-means clustering

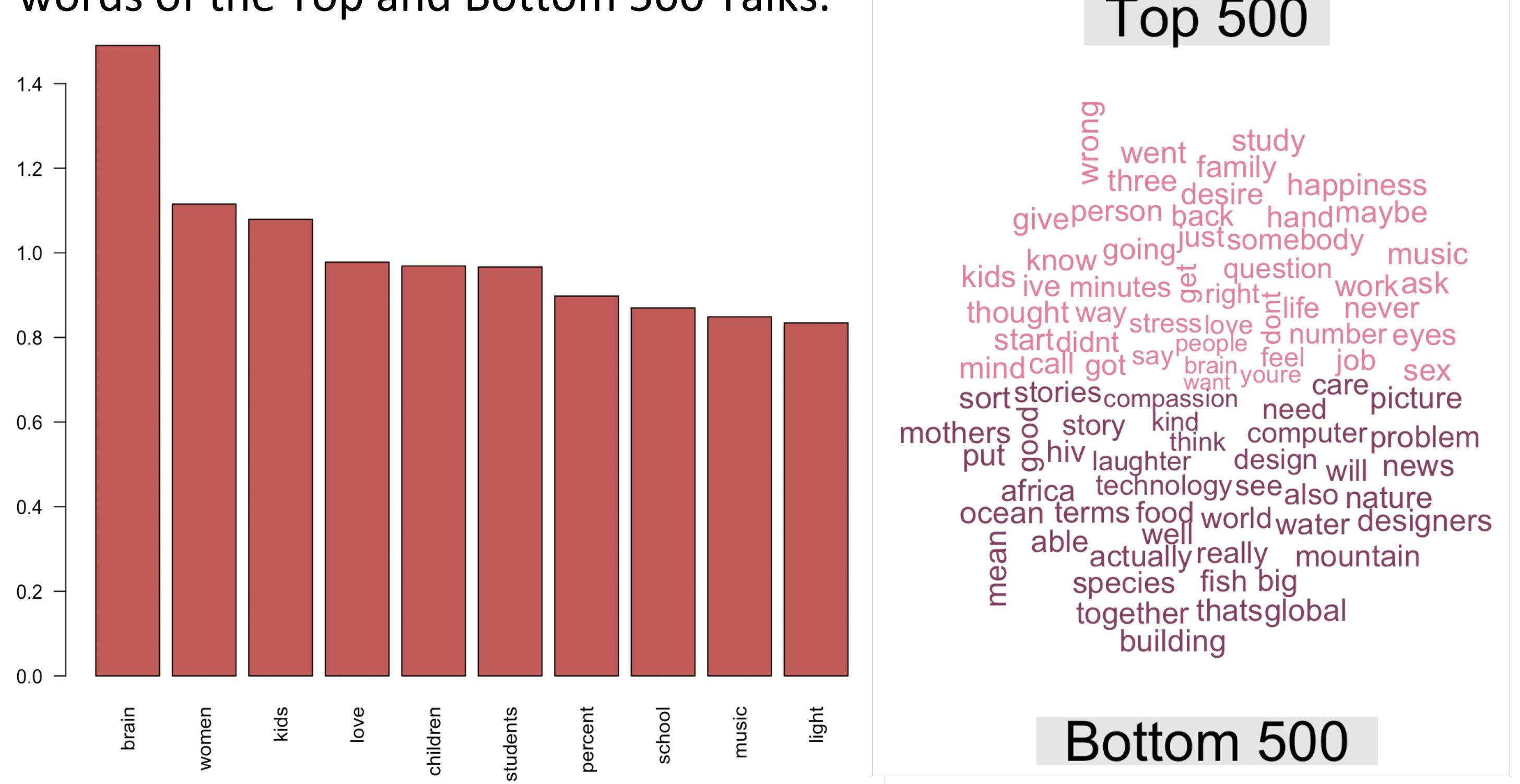
Speakers and Themes



Interestingly, it was observed that while Technology was the most popular theme of the TED talks, Writers were the most dominant when it came to popular professions.

Power Words

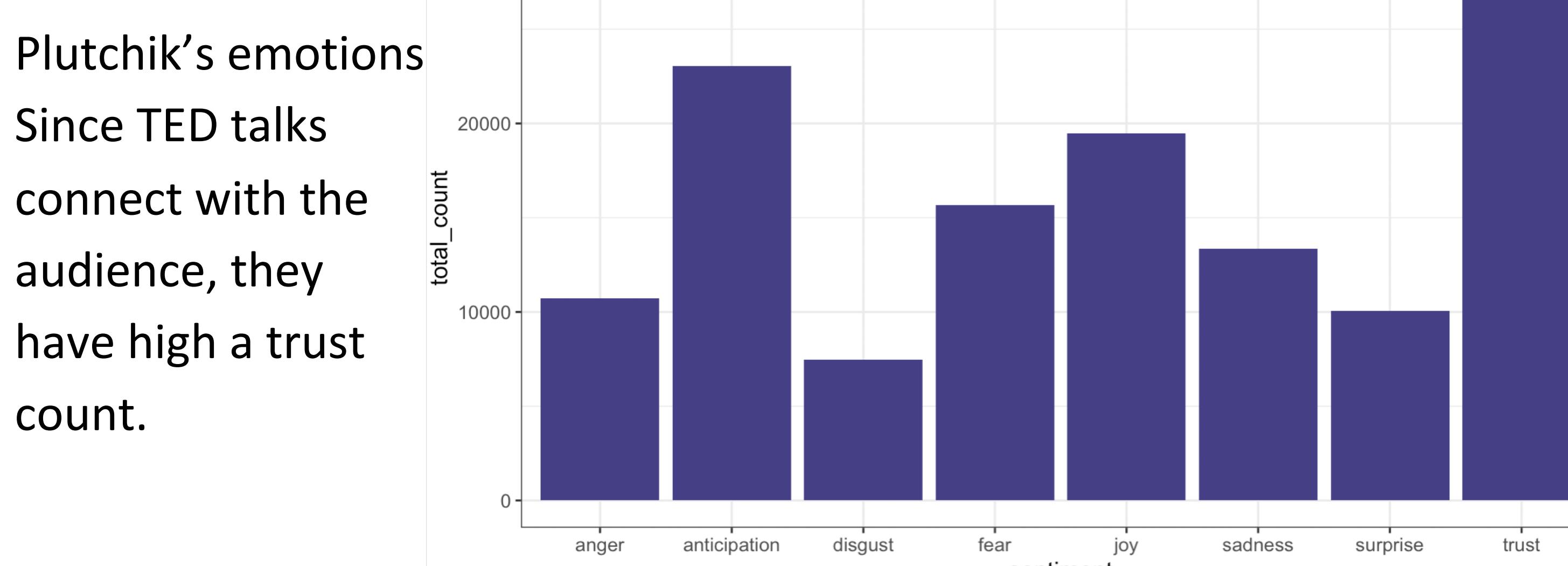
Based on the number of *views* and *comments* of each TED talk, the Top and Bottom 500 talks were selected. The histogram describes the power words of the Top 500 talks, while the word cloud compares the power words of the Top and Bottom 500 Talks.



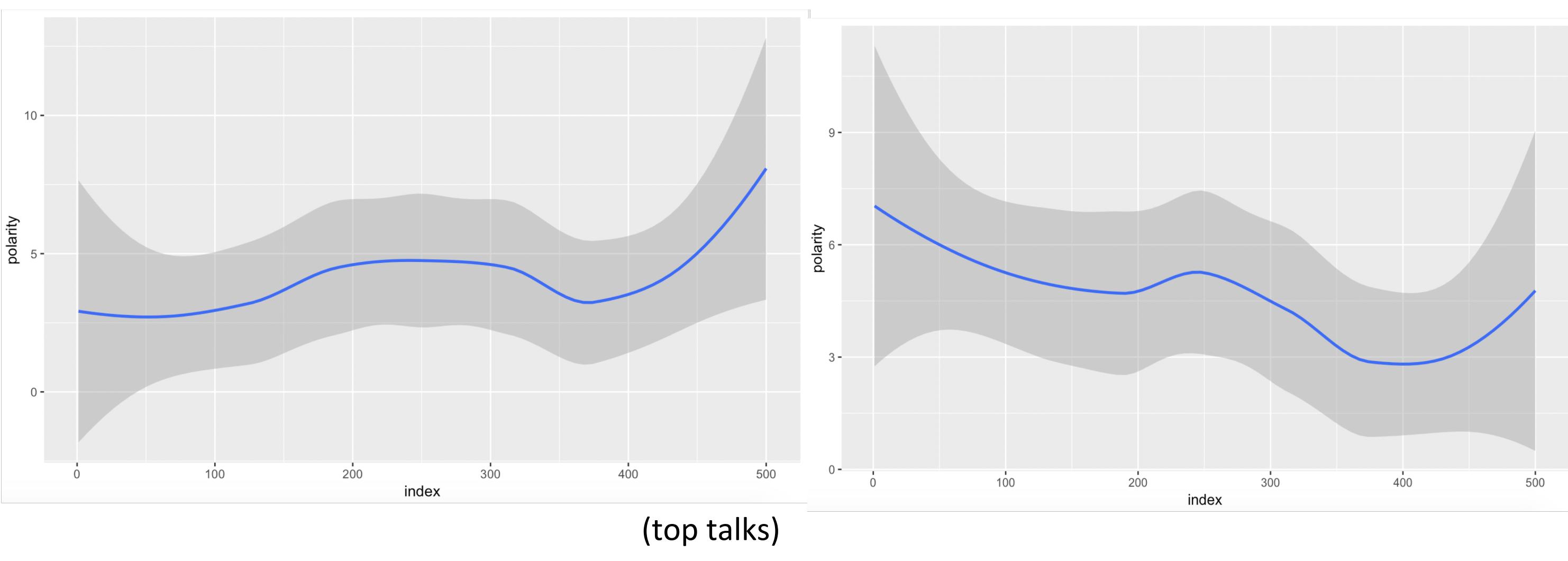
Methodology

- Sentiment analysis using bag of words technique and a lexicon based approach has been used.
- Network analysis by content similarity analysis.
- Topic modelling between three different talks on women empowerment (TED, UN & Political speech) was carried out to gain insight on the differences of power words based on the intent of deliverance.

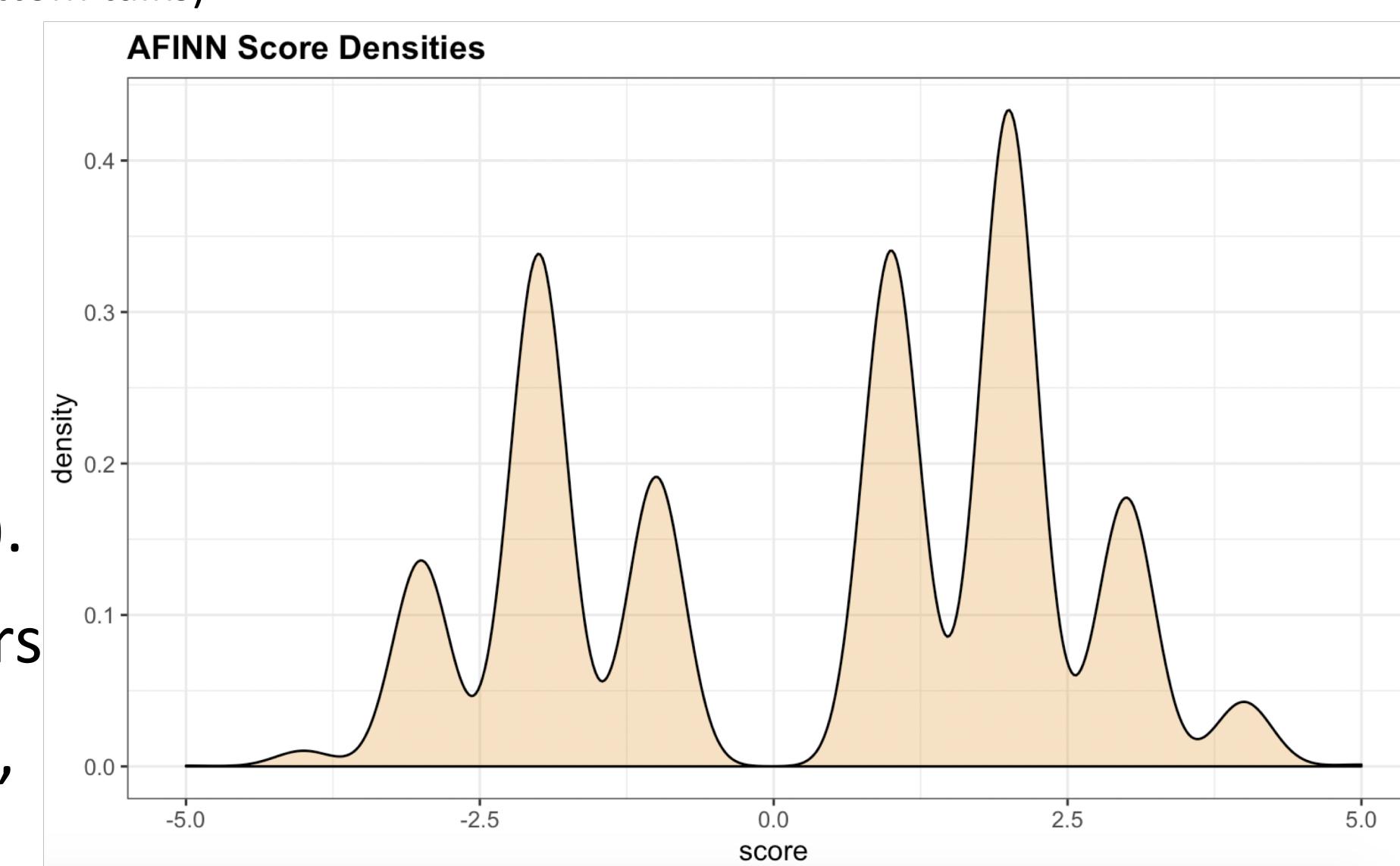
NRC lexicon labels words across multiple emotional states. The NRC lexicon tags words



The BING lexicon categorizes words in a binary fashion into positive and negative categories. Comparing the timeline of sentiments of top and the bottom talks, the top talks end more optimistically.

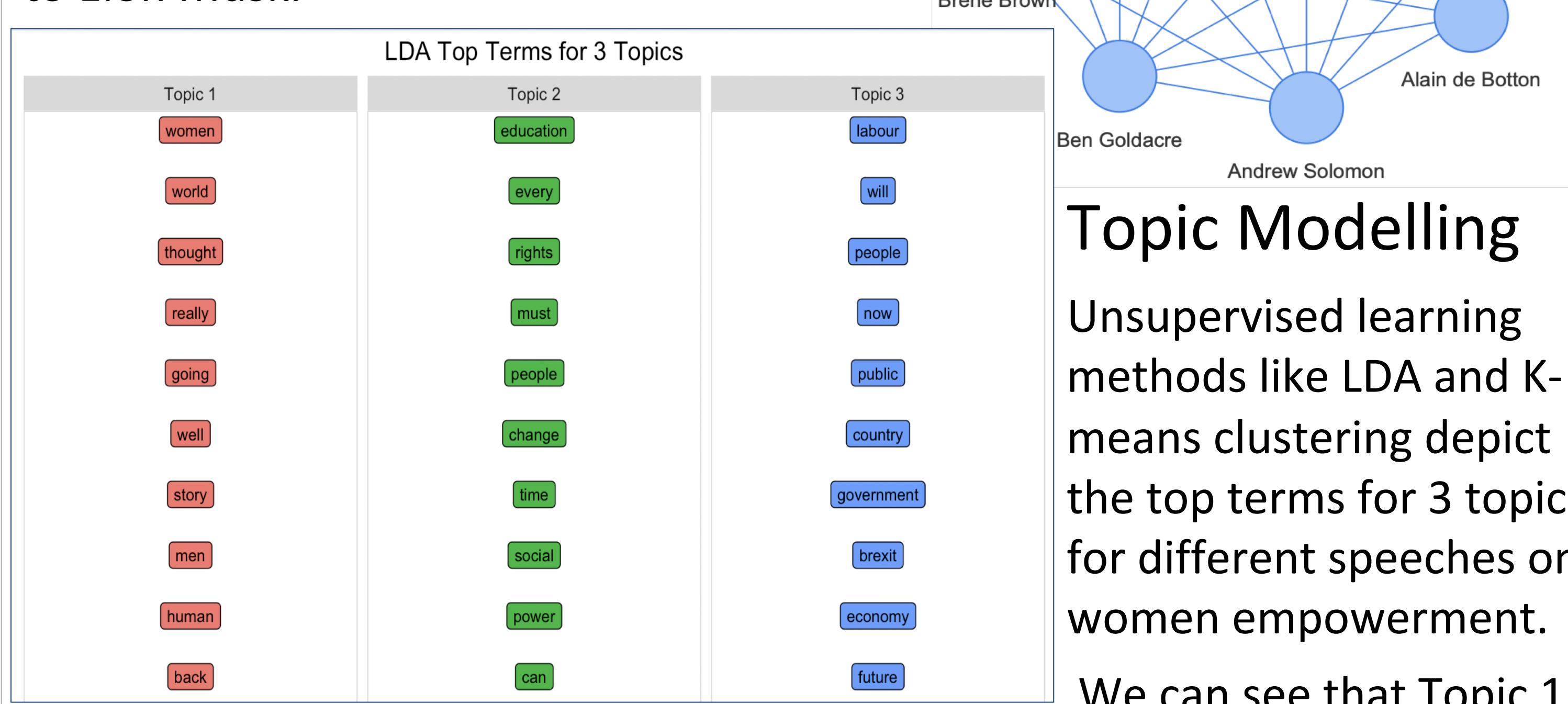


The AFINN lexicon is a list of English terms manually rated for valence with an integer between -5 (negative) and +5 (positive). It exhibits how TED speakers use a storytelling approach, sharing with the viewers their journey of overcoming failures and achieving success.



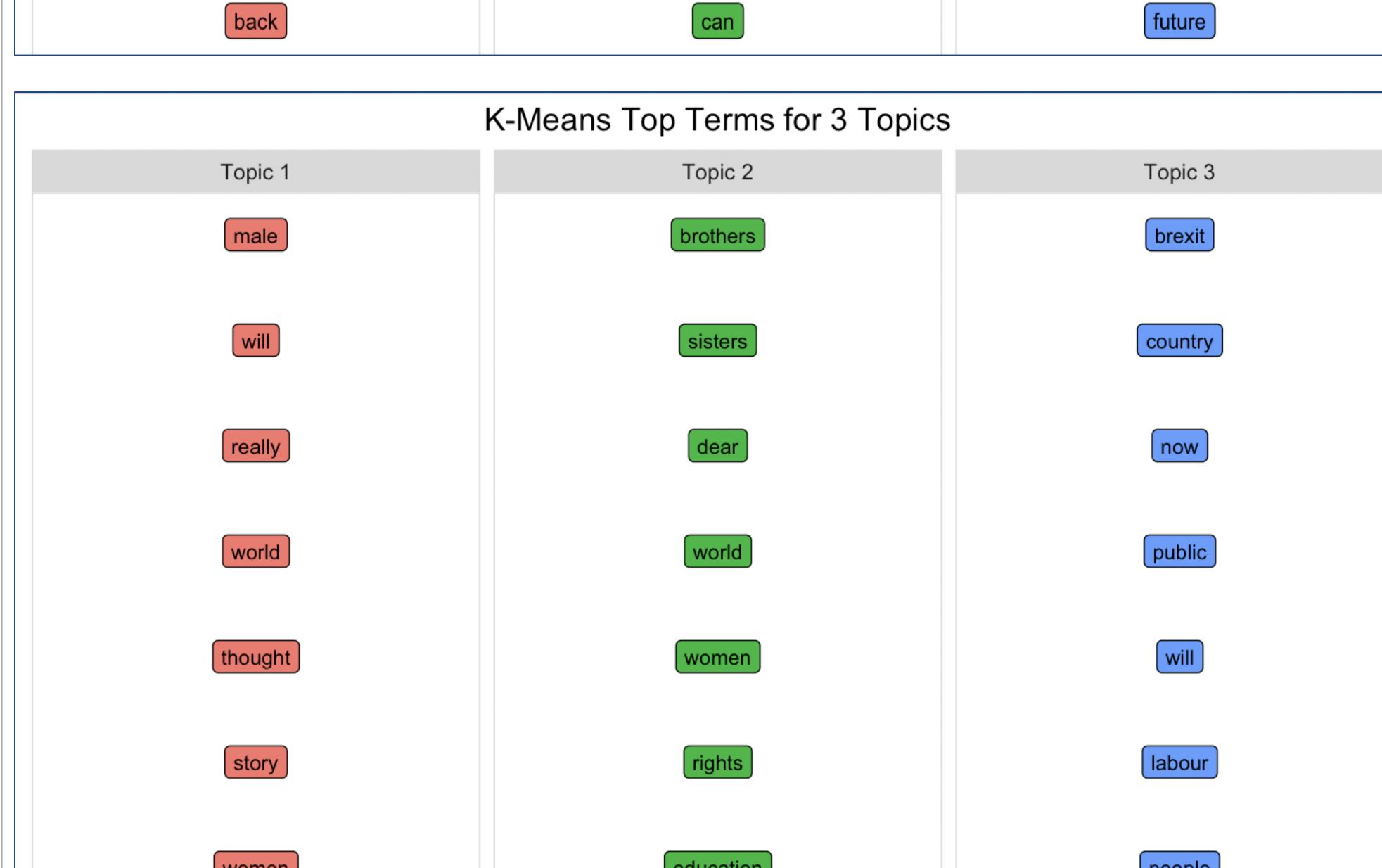
Recommendation of similar speakers

By calculating cosine similarity between artists, a network of related speakers was created. The example here shows a subgraph of the result of recommended speakers when the user is interested in talks similar to Elon Musk.



Topic Modelling

Unsupervised learning methods like LDA and K-means clustering depict the top terms for 3 topics for different speeches on women empowerment.



Conclusion

While TED talks are special because of the stories they convey, performing sentiment analysis on them generated some interesting results on the similarities of these talks.

- We can analyze that although the TED talks are of progressive nature, they mostly revolve around wisdom, women, family and passion.
- The greatest quality a TED speaker possesses is the ability to gain the trust of the audience. Also, creating an atmosphere of anticipation while storytelling is characteristic trait of great TED speakers.