

#GrenfellTowerFire

An aerial photograph of the Grenfell Tower fire. The tower is a tall residential building engulfed in intense orange and yellow flames, with thick black smoke billowing out from multiple floors. The surrounding area shows other residential buildings and greenery at dusk or night.

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Slides Available:

<https://justinchuntingho.github.io/CSS-slides/>

2017 Grenfell Tower Fire



WHERE:

Grenfell Tower, North Kensington, London, UK

WHEN:

14 June 2017, 00:54 Local Time

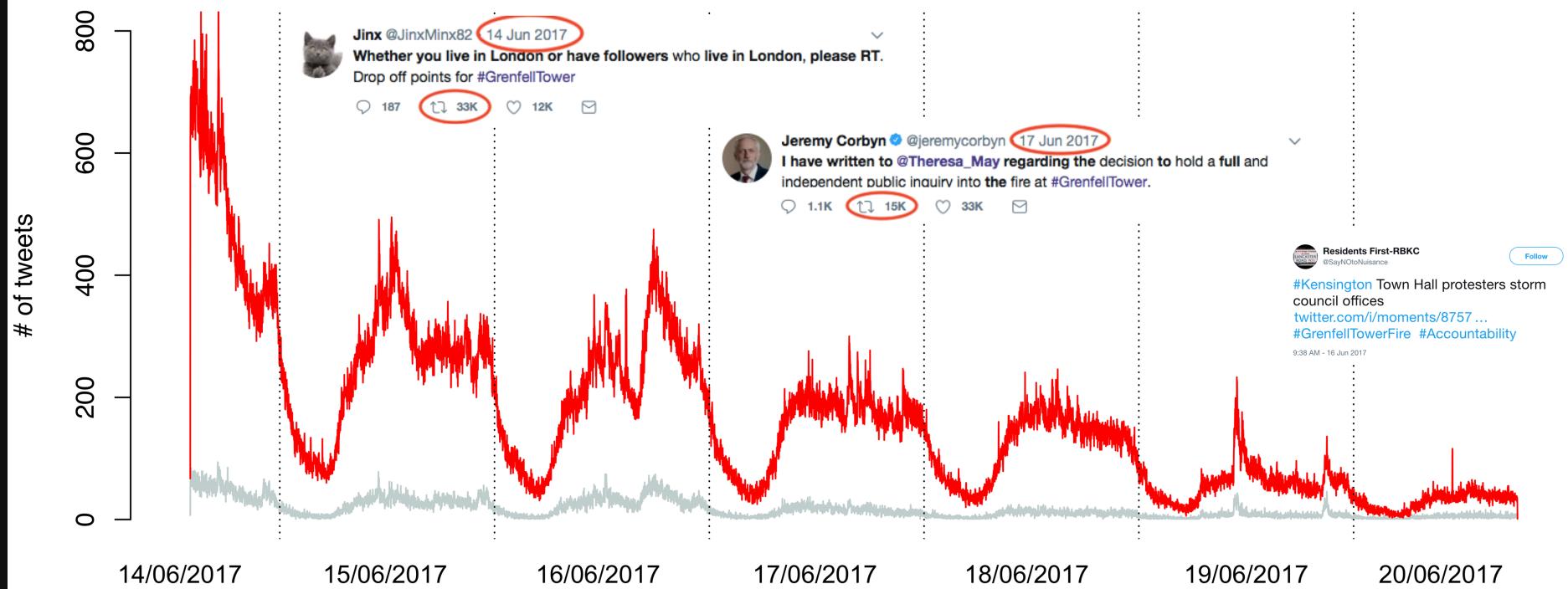
WHAT:

60 hours of fire until extinguished

CASUALTIES:

72 died, over 70 injured, 2000 lost homes

Temporal signature of Grenfell Fire



Research Questions

RQ1:

How did the public sentiment about the Grenfell Tower Fire on Twitter evolve over time?

RQ2:

How did the conversation about the Grenfell Tower Fire on Twitter evolve over time?

Methods

Data: Sub-sample (10%) of 145k Tweets

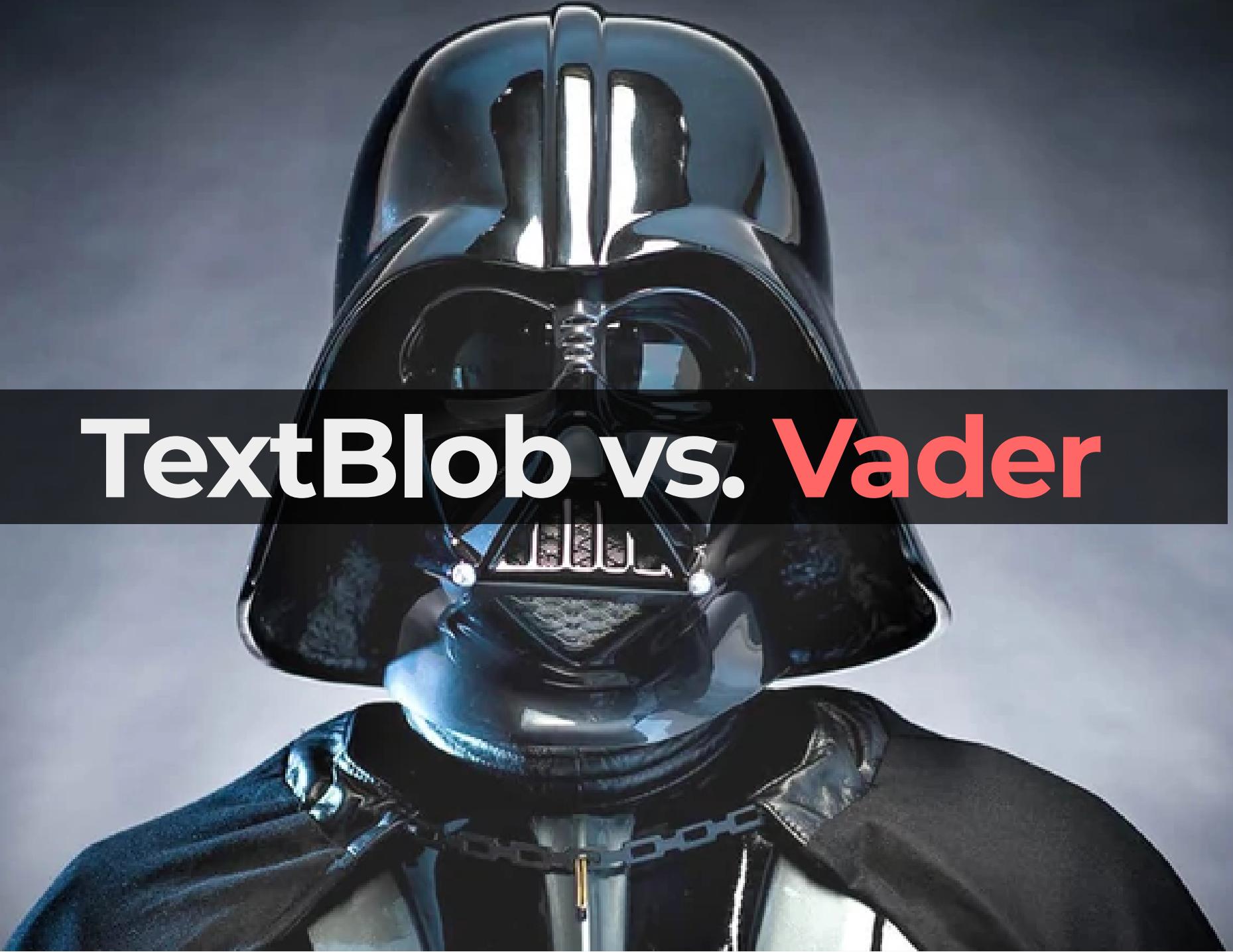
Sentiment Analysis

Topic Modeling

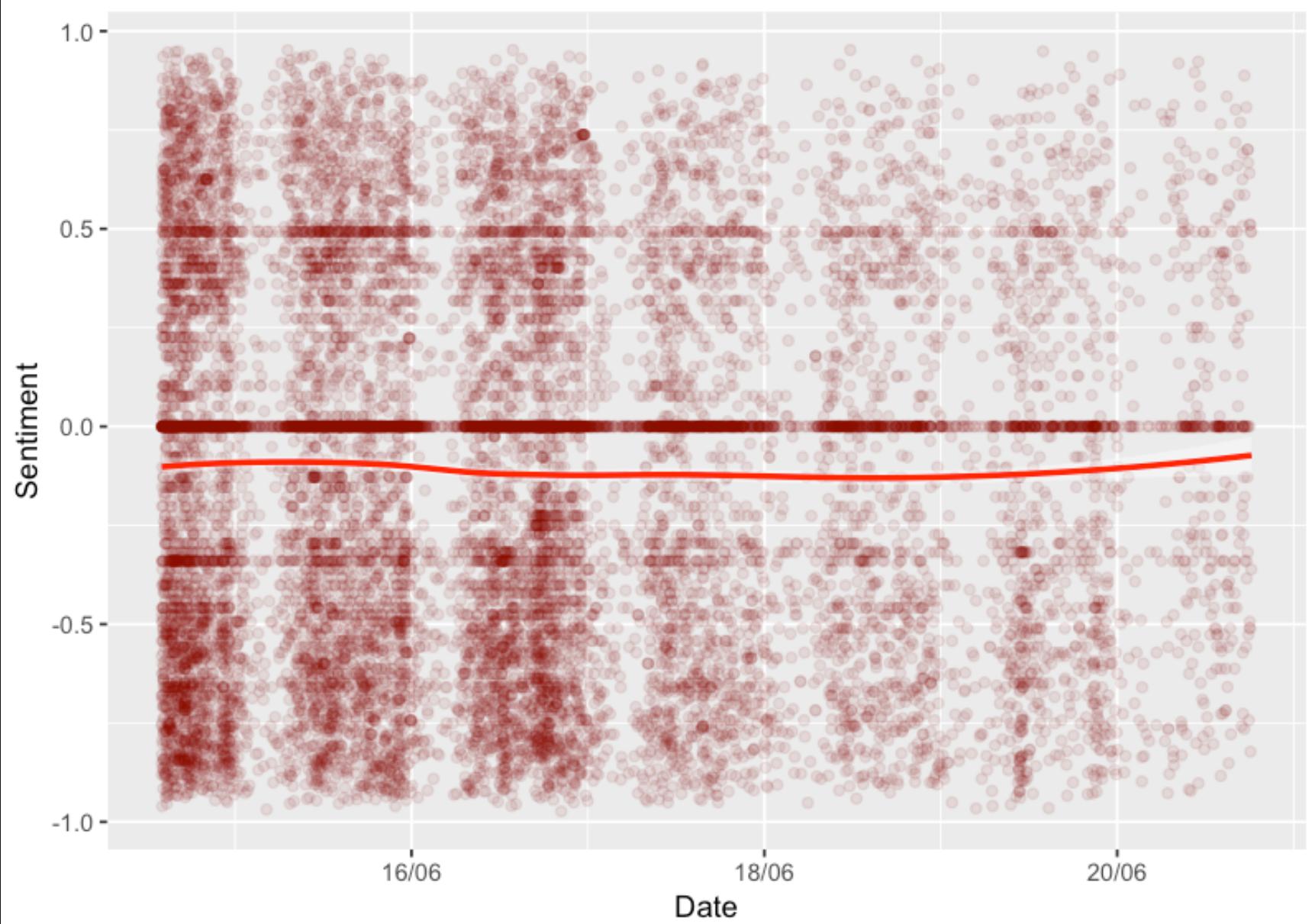
Sentiment Analysis

TextBlob vs. Vader

TextBlob vs. Vader

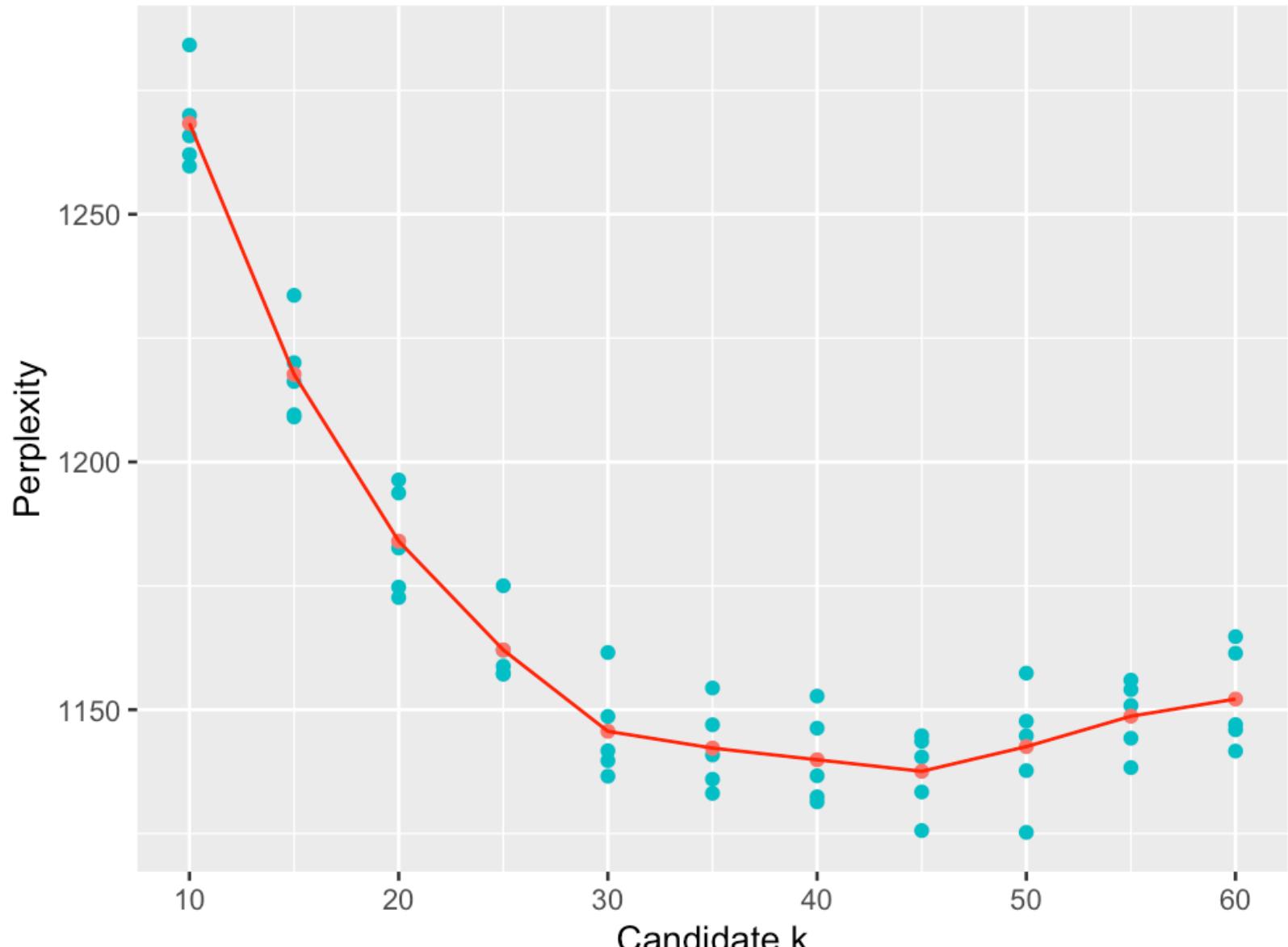


Sentiment of Tweets



Topic Modeling

5-fold Cross-Validation of Topic Modelling





beta

Selected Topic: 1

Previous Topic

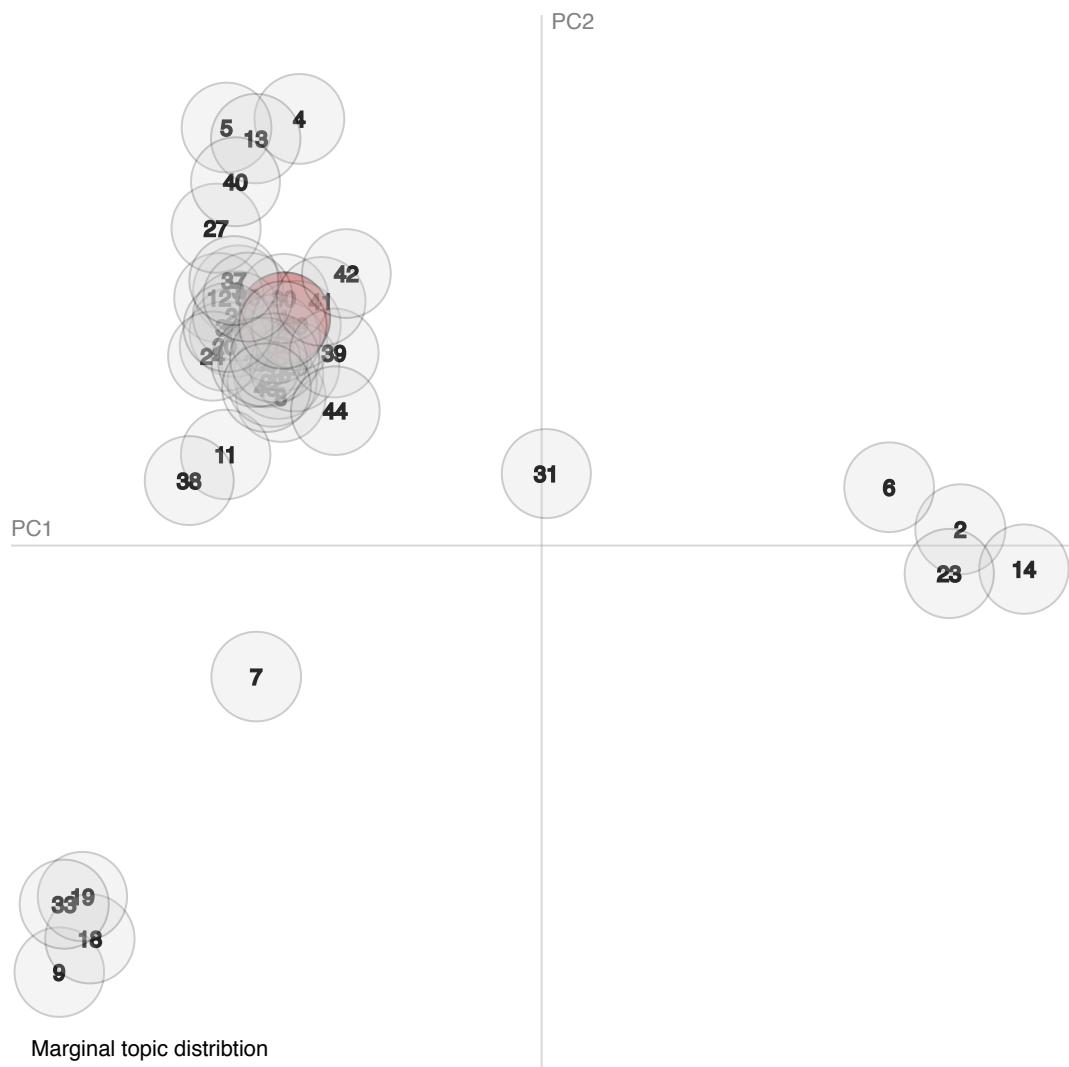
Next Topic

Clear Topic

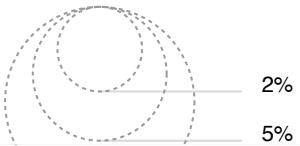
Slide to adjust relevance metric:⁽²⁾ $\lambda = 1$

0.0 0.2

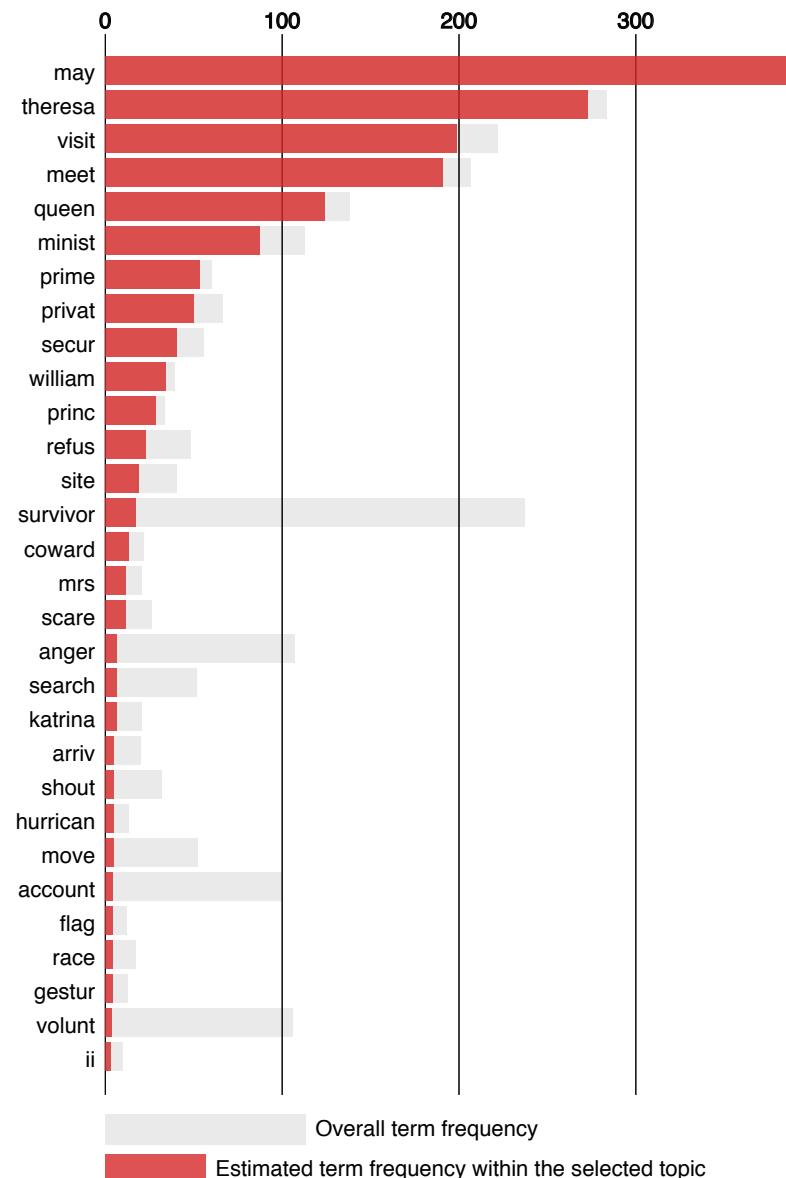
Intertopic Distance Map (via multidimensional scaling)



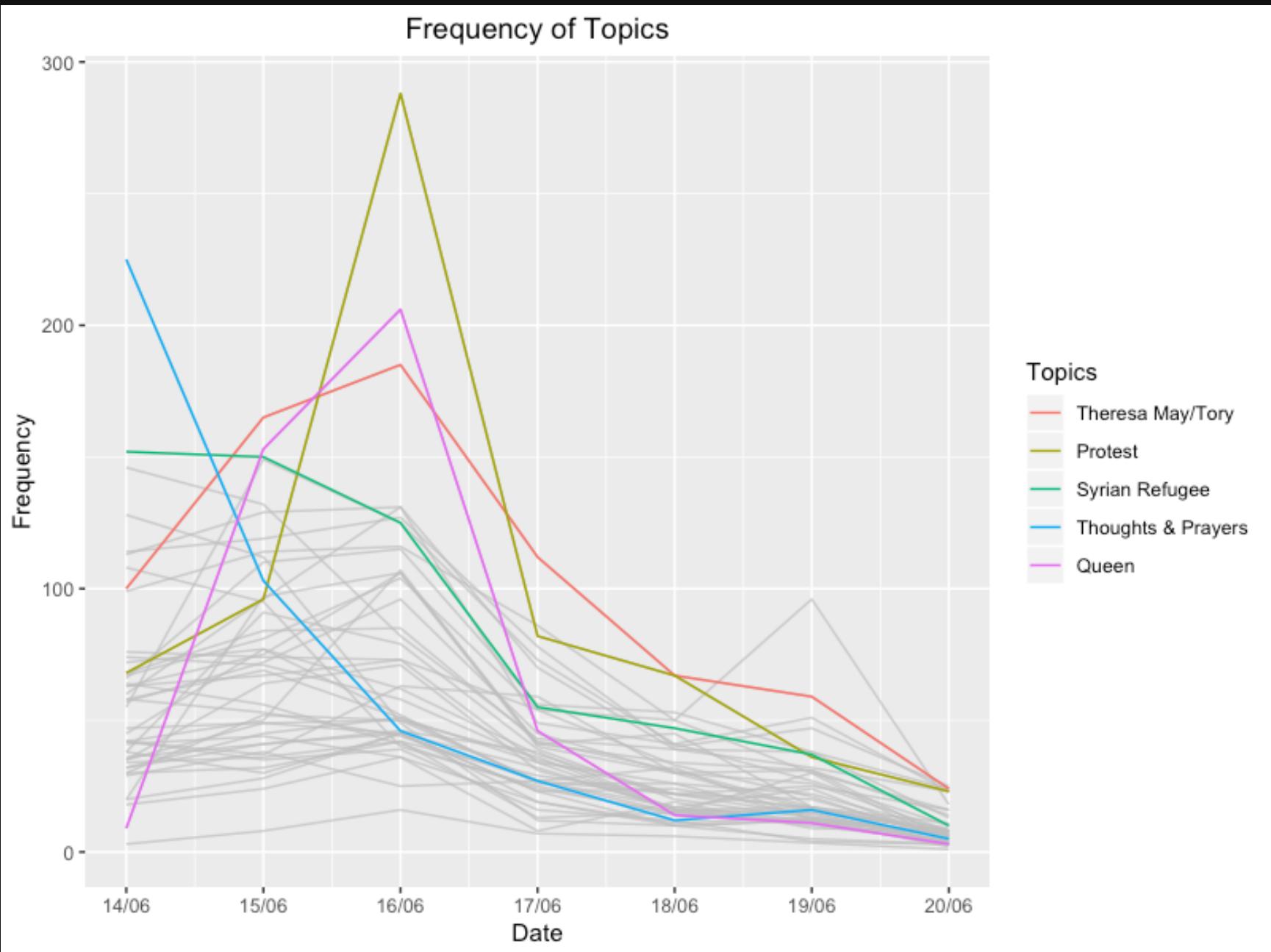
Marginal topic distribution



Top-30 Most Relevant Terms for Topic 1



$$1. \text{ saliency}(\text{term } w) = \text{frequency}(w) * \sum_t p(t|w) * \log(p(t|w)/p(t))$$

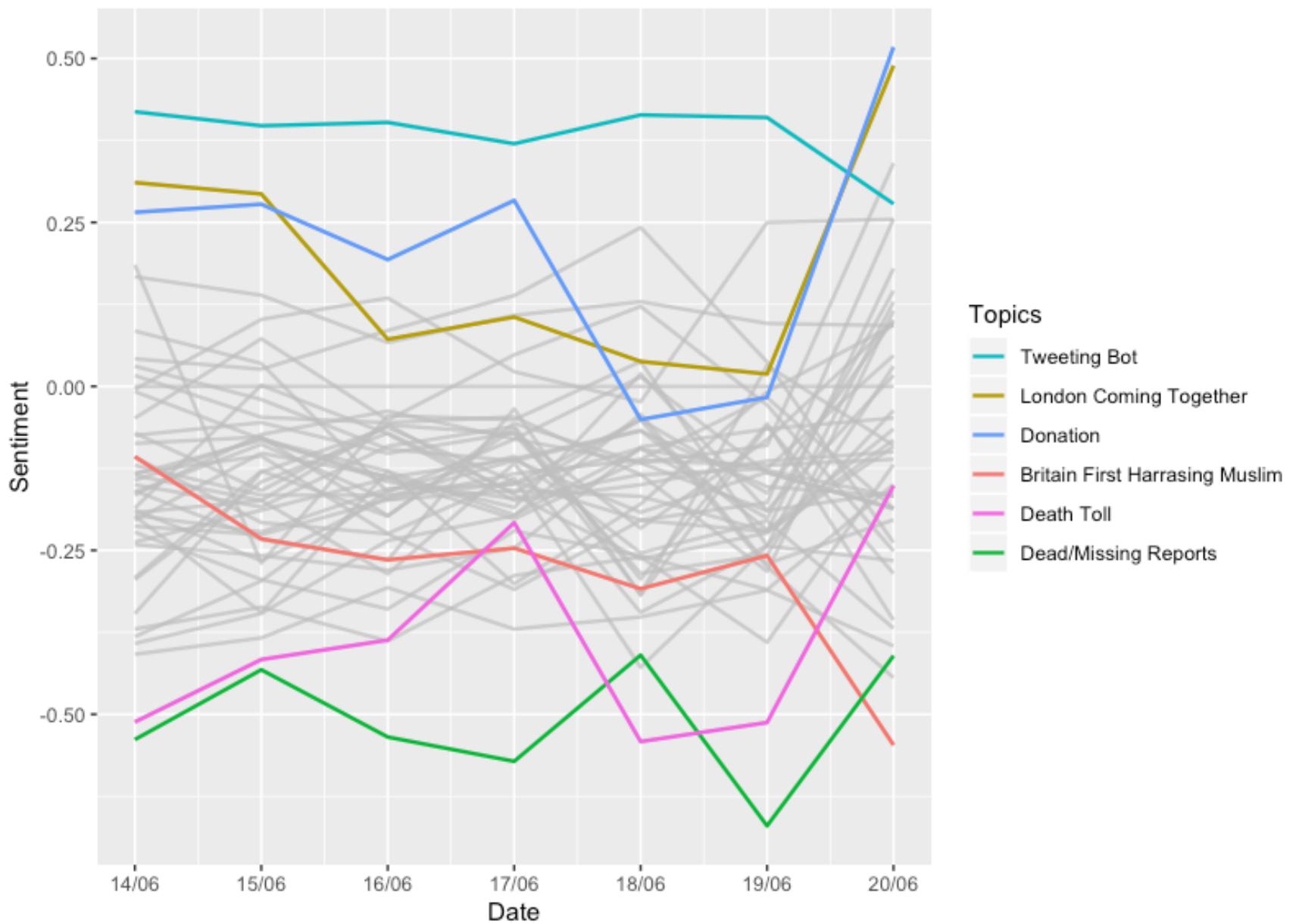


Topic Modeling

+

Sentiment Analysis

Evolution of Topic Sentiment



The latest The Jeffrey Yu Daily Post! <https://t.co/3wpKJq7jOe> Thanks to @fox5dc @tkradio @DreWins #grenfelltower #icymi

The latest Mountain Biking Daily! <https://t.co/gND2JtTZrw> Thanks to @SondelaMTB @SamuelKramer6 @NomadOU812 #cycling #grenfelltower

The latest Martin Brookes Oakham! <https://t.co/EKZgnKDQwd> Thanks to @insportfoto @LeeHellwing @VintiquesMark #fathersday #grenfelltower

The latest The Quintessentially NG Daily! <https://t.co/l8mFHOxMdN> Thanks to @MIMIPLANGE @Ms_Ojo @PaolaAudrey #loveisland #grenfelltower

The latest The MAEVE Daily! <https://t.co/KmELOKrYnl> Thanks to @dan_hanks @BlueJayBlog #grenfelltower #loveisland

The latest The Music Daily! <https://t.co/yrAoztbraK> Thanks to @umusicpt #sxsw #grenfelltower

The latest Will's Daily! <https://t.co/QMK4oqOM6n> Thanks to @DannyWalters_ @PeripateNic @Saara_Aalto_FIN #grenfelltower #loveisland

The latest The ApiMaye Beekeeping Daily! <https://t.co/mf57fZJljT> Thanks to @Fowlingbee @BeeSpotter @beesmakehoneycc #grenfelltower #bees

The latest The bobbydigits Daily! <https://t.co/Wvl5YXYD9V> Thanks to @cbellantoni @edhornick @katiemjy #grenfelltower #alexandria

The latest The Talkoholic Daily! <https://t.co/OE1AINlelh> Thanks to @GlenSalo @markorusso69 @a_sumbel #grenfelltower #humanrights

The latest The @PolMus Daily! <https://t.co/romsC3TsDS> Thanks to @J_OE_nl @Dulfera @Posdijk #grenfelltower #loveisland

The latest The green Daily! <https://t.co/JndnYDI0rE> Thanks to @sciam @mongabay @Seeker #vaw #grenfelltower

The latest The Darren Cottom Daily! <https://t.co/kp8COKUnkT> Thanks to @darrenmoore #ad #grenfelltower

The latest The daily doo! <https://t.co/YSLlqmh85s> Thanks to @JPEGdesignprint @dan_sadie @OmbarChocolate #travel #grenfelltower

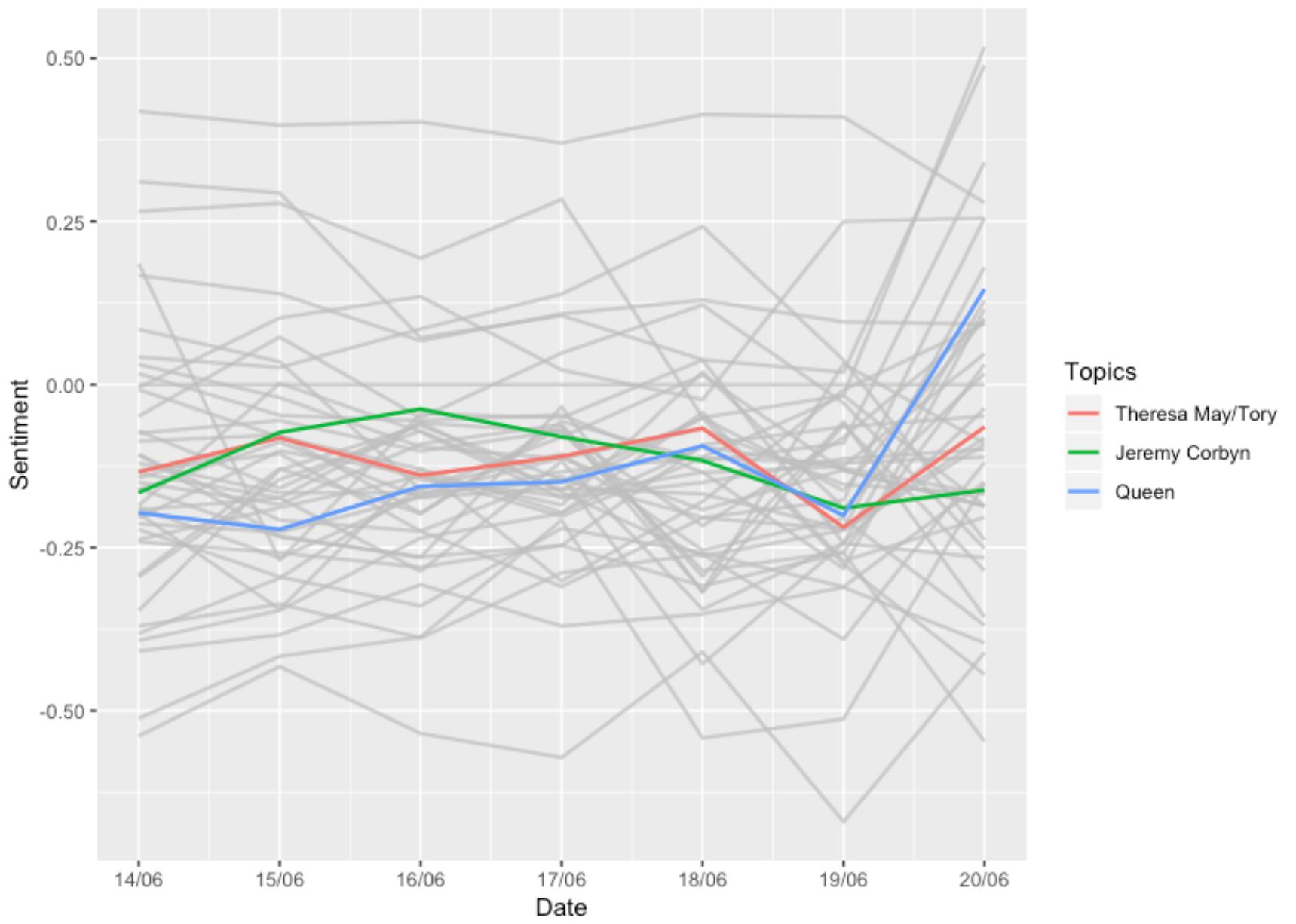
The latest The YangWU Daily! <https://t.co/sVxEjoz9Jt> Thanks to @scheggia26 @melissakchan @aiww #fathersday #londonfire

The latest The mite Daily! <https://t.co/hL6tp23tya> Thanks to @halelule #foxnewsus #grenfelltower

The latest Libya S.O.S. - Daily News! <https://t.co/NhJdiHkvPh> Thanks to @br_green_heart @Energisch_ @bsnews1 #grenfelltower #infowars

The latest The Loreburne Daily! <https://t.co/gHmQGeDWC4> Thanks to @Digit2017 @gap1967 @DrScottThinks #grenfelltower #fathersday

Sentiment Evolution of Selected Topics



Conclusion

- 1. People sleep at night**
- 2. Big data is too big**
- 3. If you are happy when tragedy happens, you are probably not human**
- 4. The Queen always wins in the end**

Real Conclusion

- 1. We see overall negative sentiment for tweets after crisis like this.**
- 2. Sentiment is context-dependent. Different pattern of trends can only be seen once we look at specific topic.**

Implication and Impact:

- 1. Twitter can be a useful platform for public communication during and after a crisis.**
- 2. Announcement of support from government and organisations would generate positive sentiment on social media after crisis.**



Jinx @JinxMinx82 14 Jun 2017

Whether you live in London or have followers who live in London, please RT.

Drop off points for #GrenfellTower



CALLING ALL LONDONERS!

Anyone who is near Latimer Road and is able to help and assist in any way, please do!

Due to the engulfment of the inferno in Grenfell Tower, Latimer Road, W11 1TG, people have been left with no clothes, food, homes and memories being burnt to ashes.

HELP/ DROP OFF POINTS:

RUGBY PORTBELLO TRUST
221 Walmer Road,
W11 4EY

ST CLEMENT'S CHURCH
95 Sirdar Road,
W11 4EQ

TABERNACLE CHRISTIAN CENTRE
Jubilee House,
210 Latimer Road,
W10 6QY

OVER 2000 PEOPLE HAVE LOST THEIR HOMES.

[https://www.theguardian.com/uk-news/2017/jun/14/
fire-24-storey-grenfell-tower-block-white-city-
latimer-road-london](https://www.theguardian.com/uk-news/2017/jun/14/fire-24-storey-grenfell-tower-block-white-city-latimer-road-london)

187

33K

12K



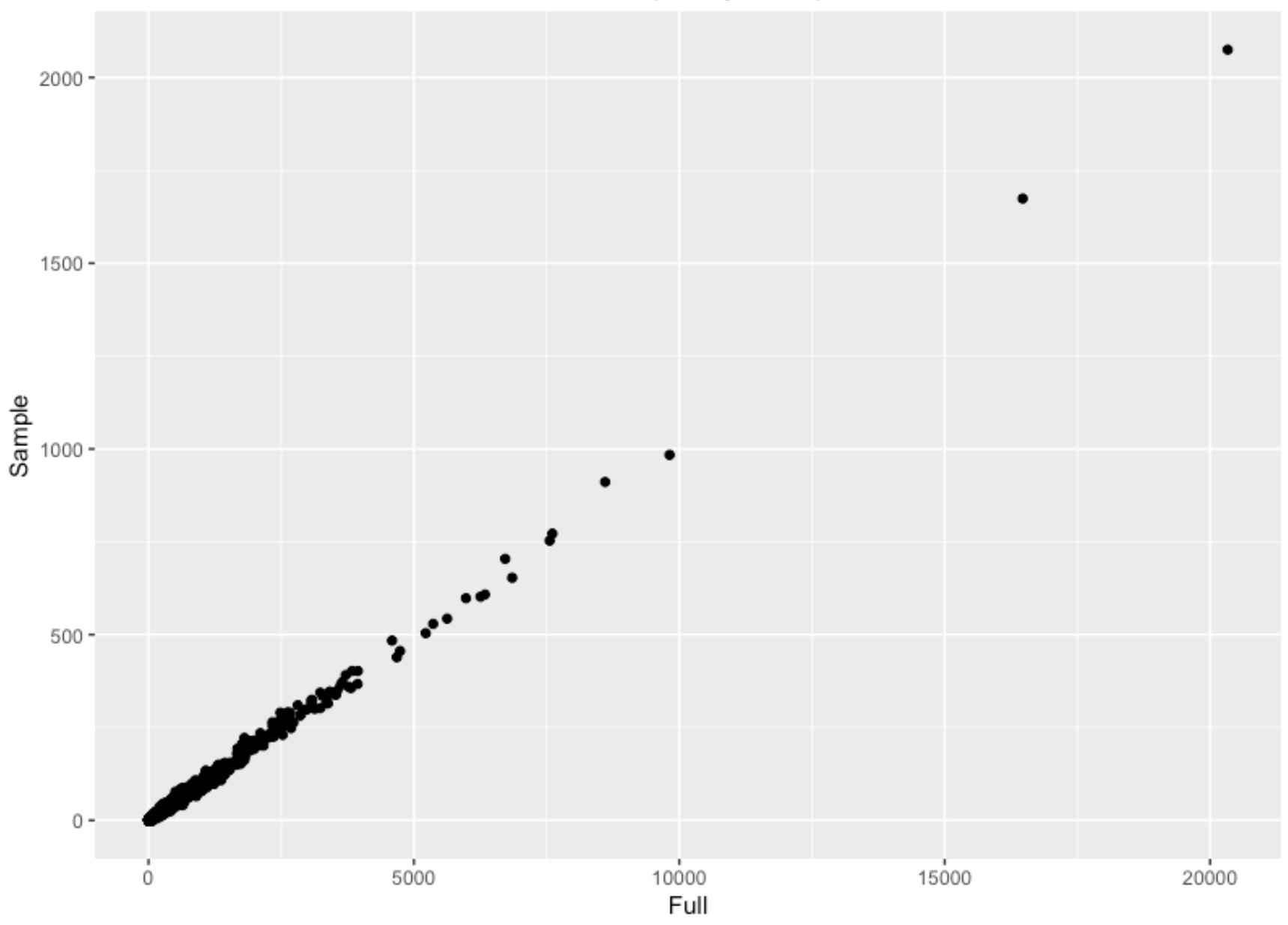


Queen Elizabeth II, wearing her coronation robes, a purple velvet jacket over a white lace-collared dress, and a tall purple velvet hat with a white feather. She is smiling and looking slightly to the left. A black rectangular overlay contains the text "Thank You!" in white.

Thank You!

abc

Correlation of the Frequency of Top 10000 Terms



Kendall's Tau of Top Terms

