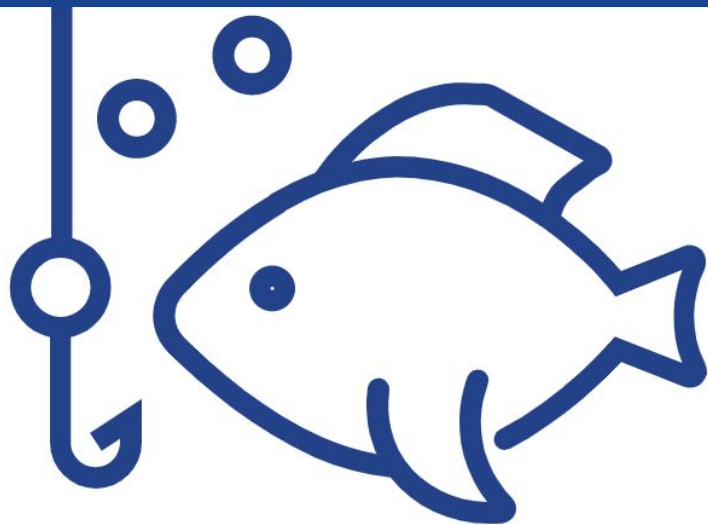


# How to Troll the World





**Dean Browning** 

@DeanBrowningPA

Twitter is a weapon of war masquerading as a toy.

2:30 PM - 27 Sep 2020

76 Retweets 264 Likes



6



76



264

# What is a troll?

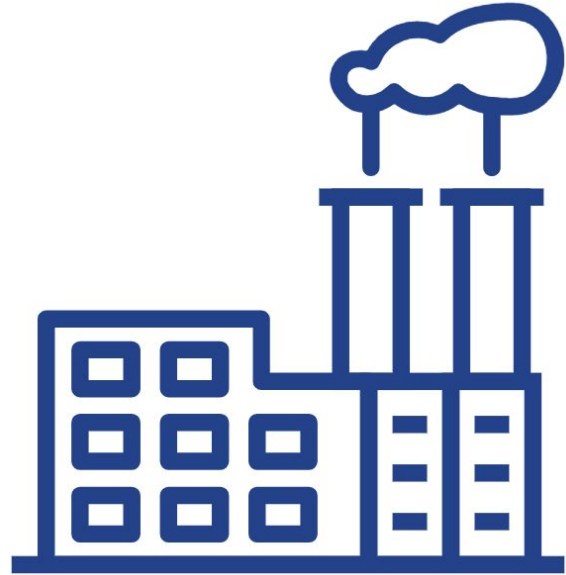


A **troll is a person who** starts flame wars or **intentionally upsets people** by posting inflammatory and digressive, extraneous, or off-topic messages in an online community **with the intent of provoking readers into displaying emotional responses and normalizing tangential discussion,** either for the troll's amusement or a specific gain<sup>1</sup>

<sup>1</sup>Wikipedia - Internet Troll

# Russian “troll factory”

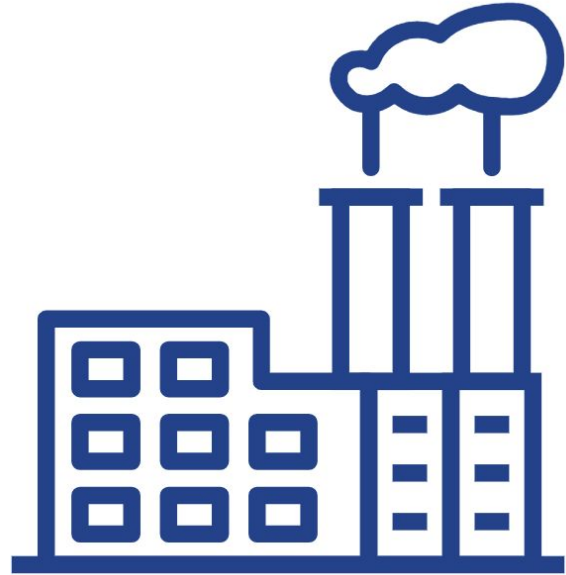
In 2018, Twitter removed **+3,500 Russian-linked accounts** and their **3 million tweets**



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The entire corpus of tweets dates from **February 2012 to May 2018**



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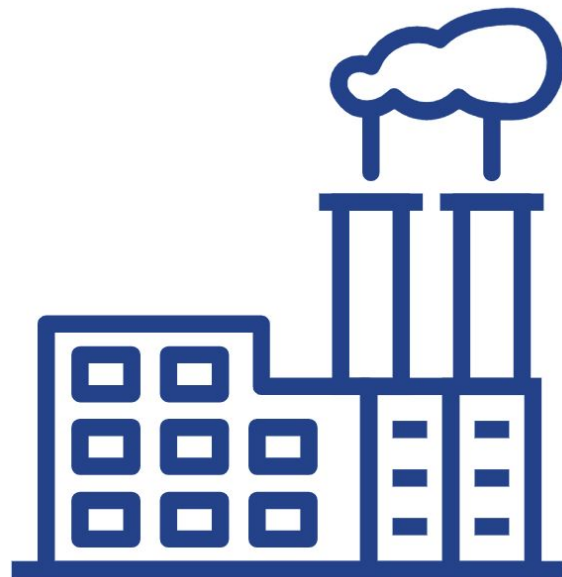
# Russian “troll factory”

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The entire corpus of tweets dates from **February 2012 to May 2018**

A team at NBC was able to construct a subset of the deleted content consisting of **200,000 tweets** from **+500 accounts**

**FiveThirtyEight** has since shared the entire corpus



<sup>1</sup>NBC Story: <https://www.nbcnews.com/tech/social-media/now-available-more-200-000-deleted-russian-troll-tweets-n844731>

<sup>2</sup>Kaggle Dataset: <https://www.kaggle.com/vikasg/russian-troll-tweets>

<sup>3</sup>FiveThirtyEight: <https://fivethirtyeight.com/features/why-were-sharing-3-million-russian-troll-tweets>

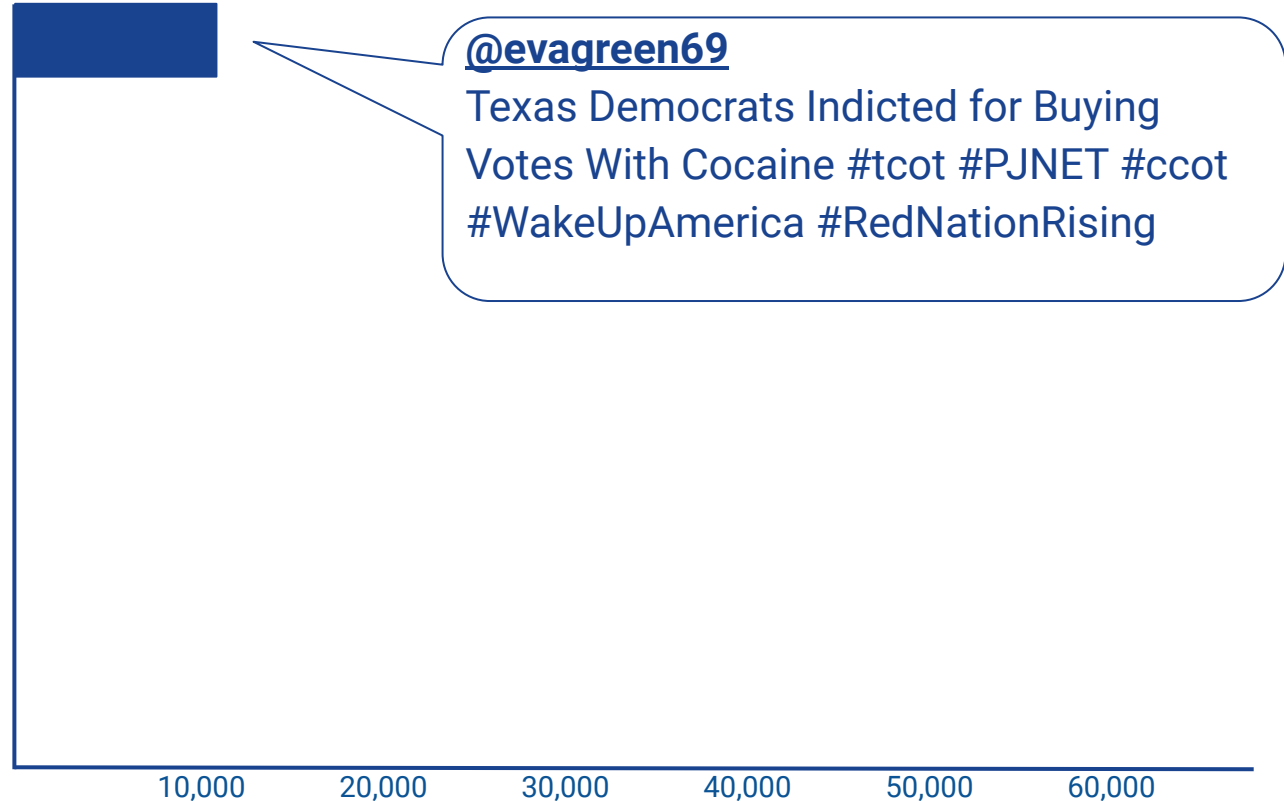
# What do trolls tweet about?





# What do Russian trolls tweet about?

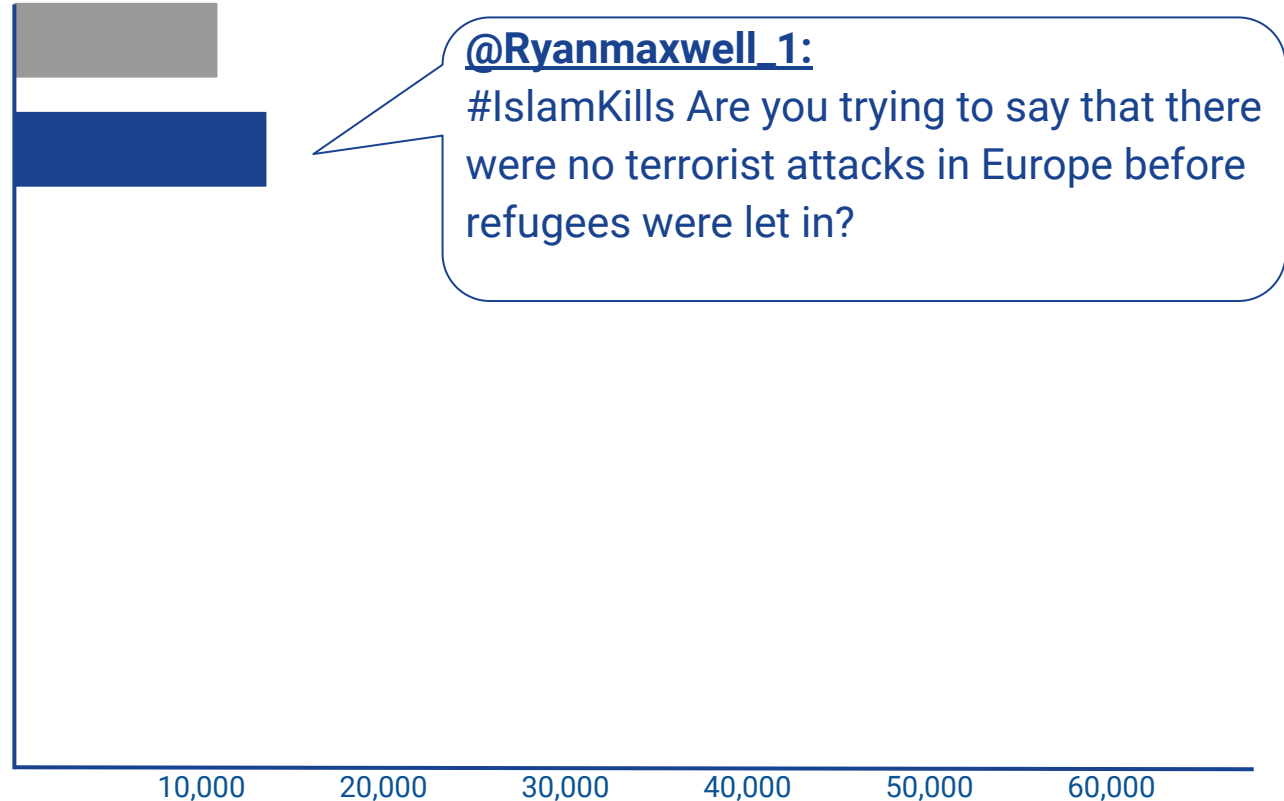
Right wing news



# What do Russian trolls tweet about?

Right wing news

Middle East

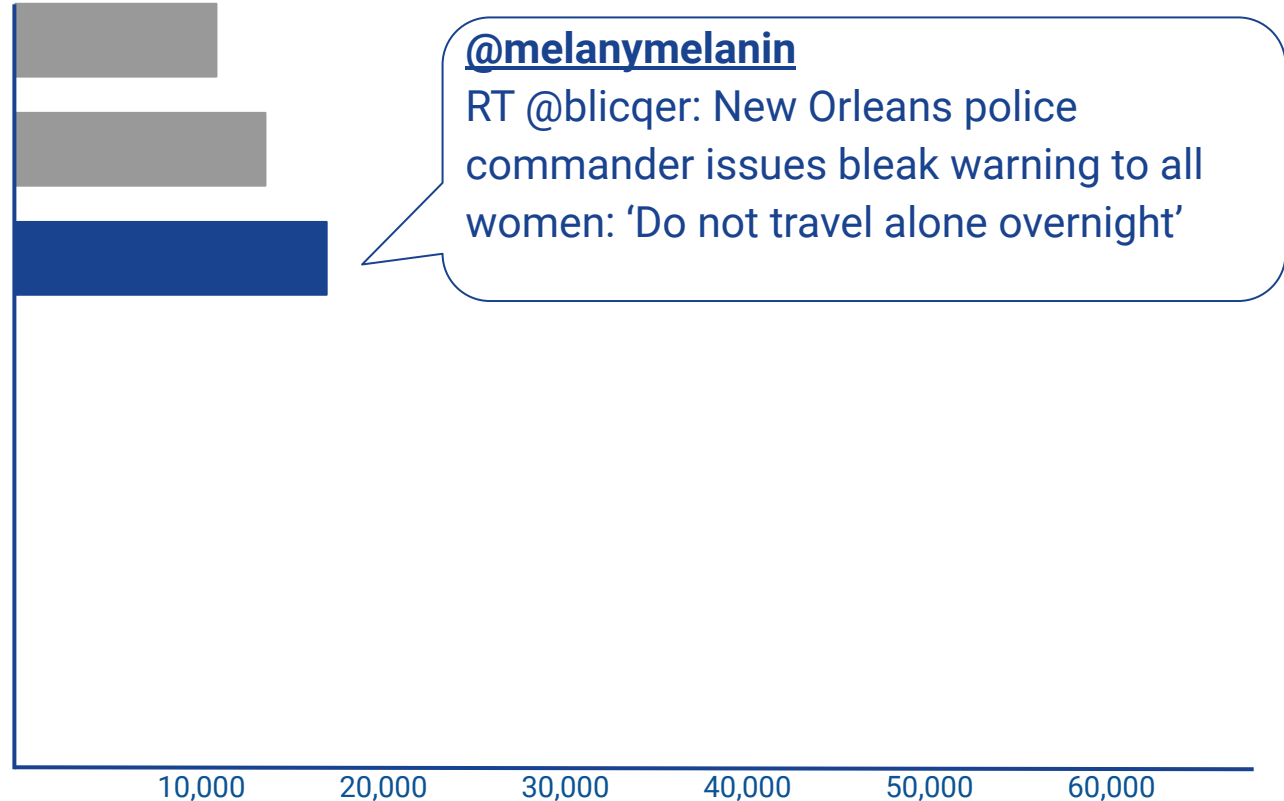


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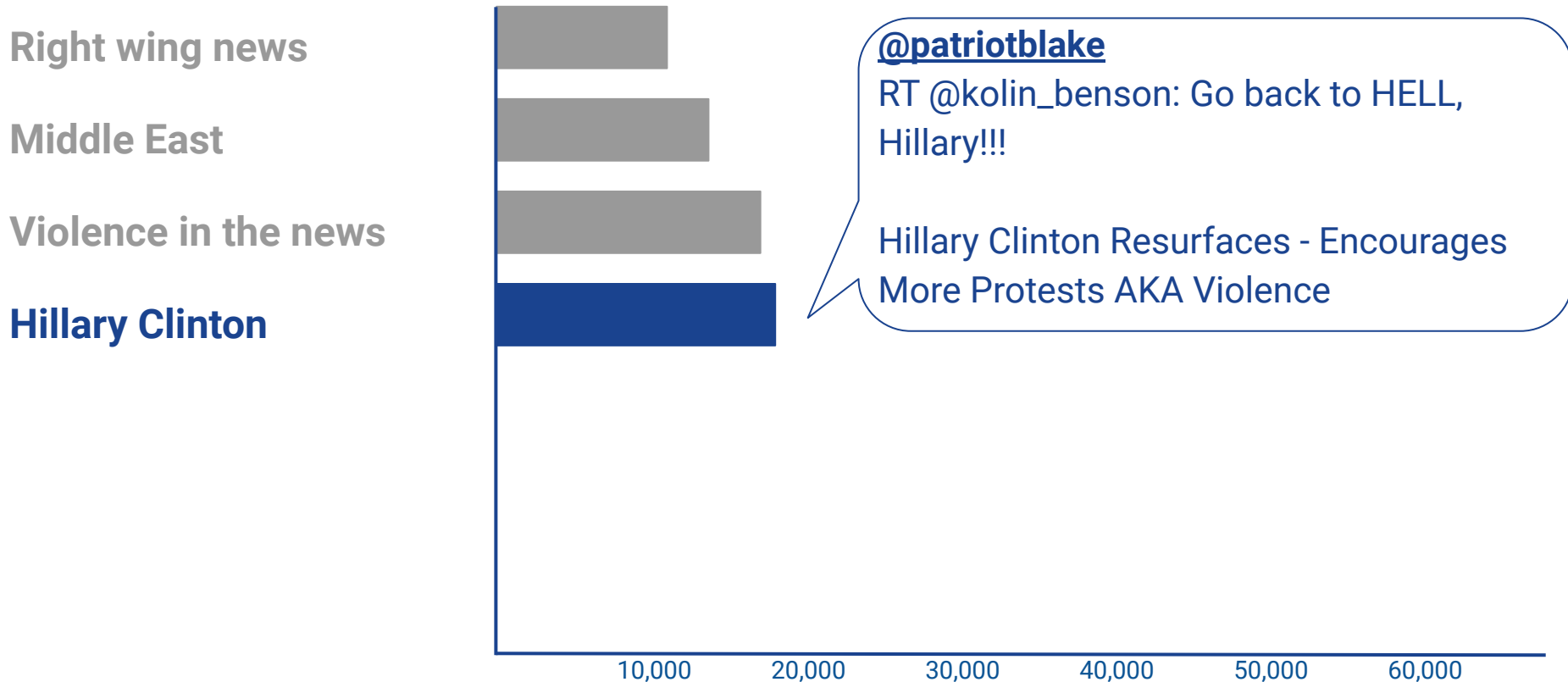
Right wing news

Middle East

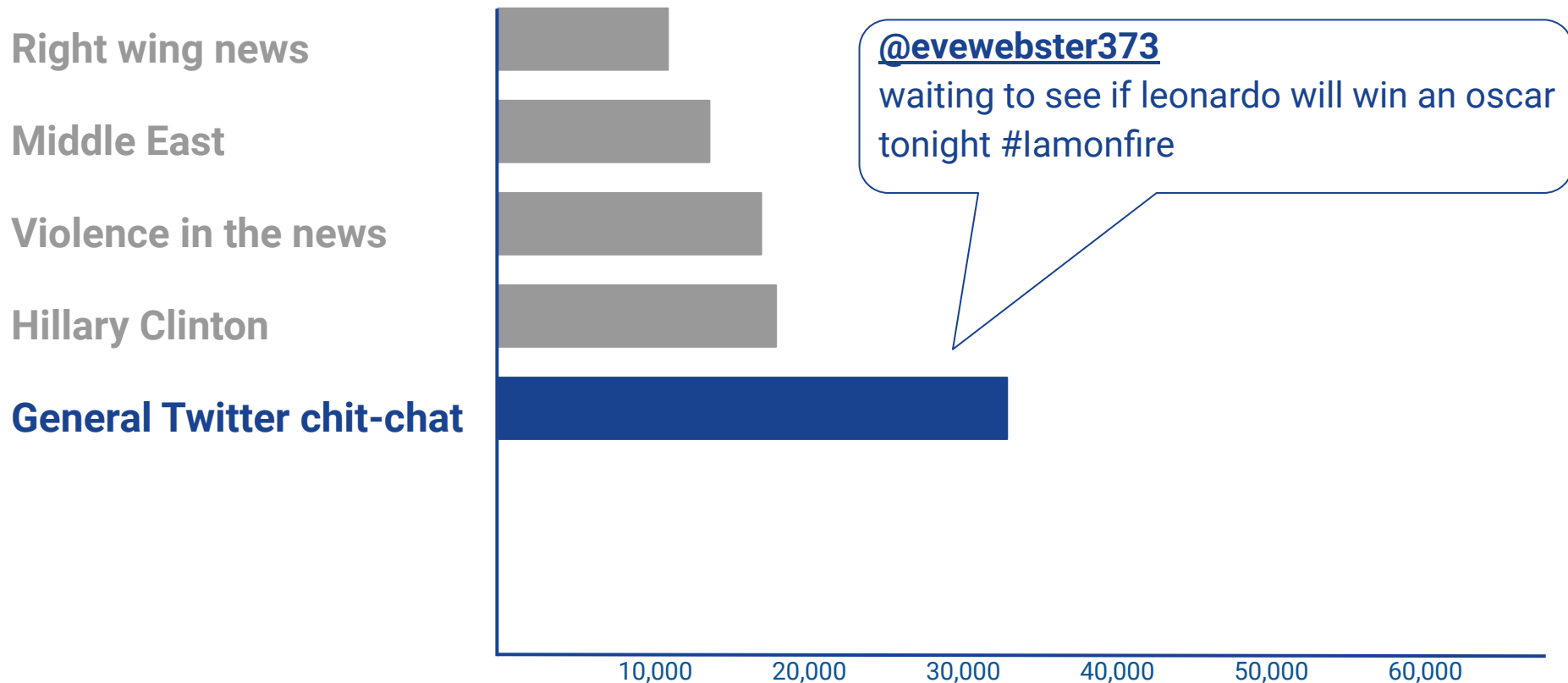
Violence in the news



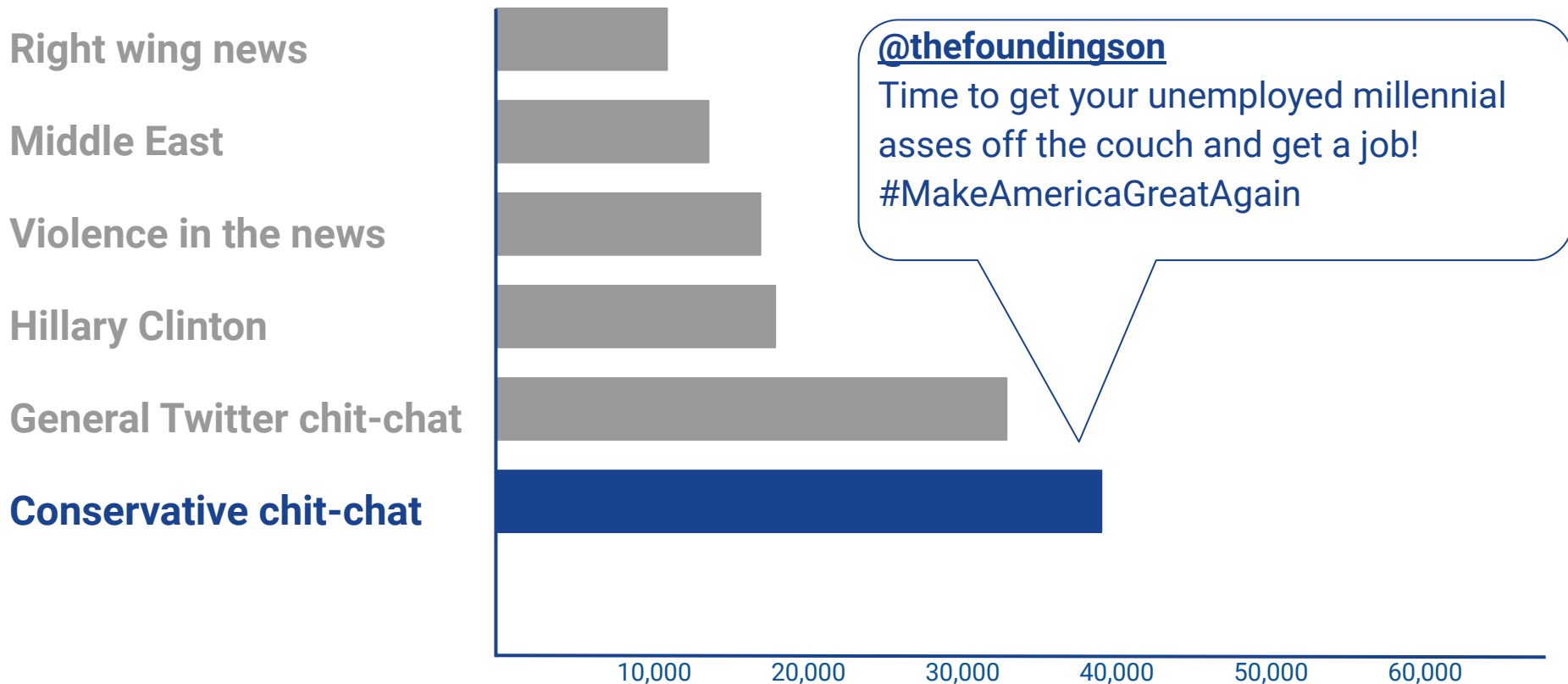
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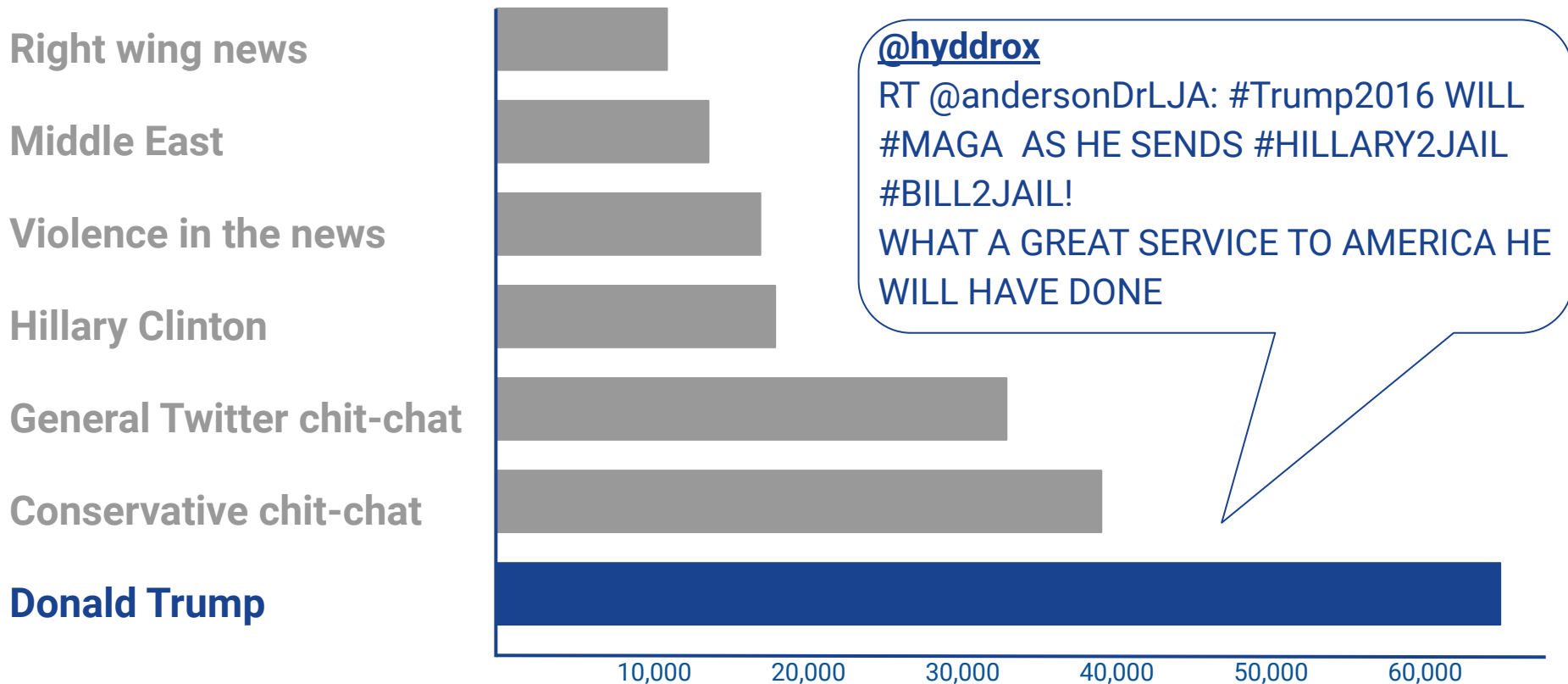
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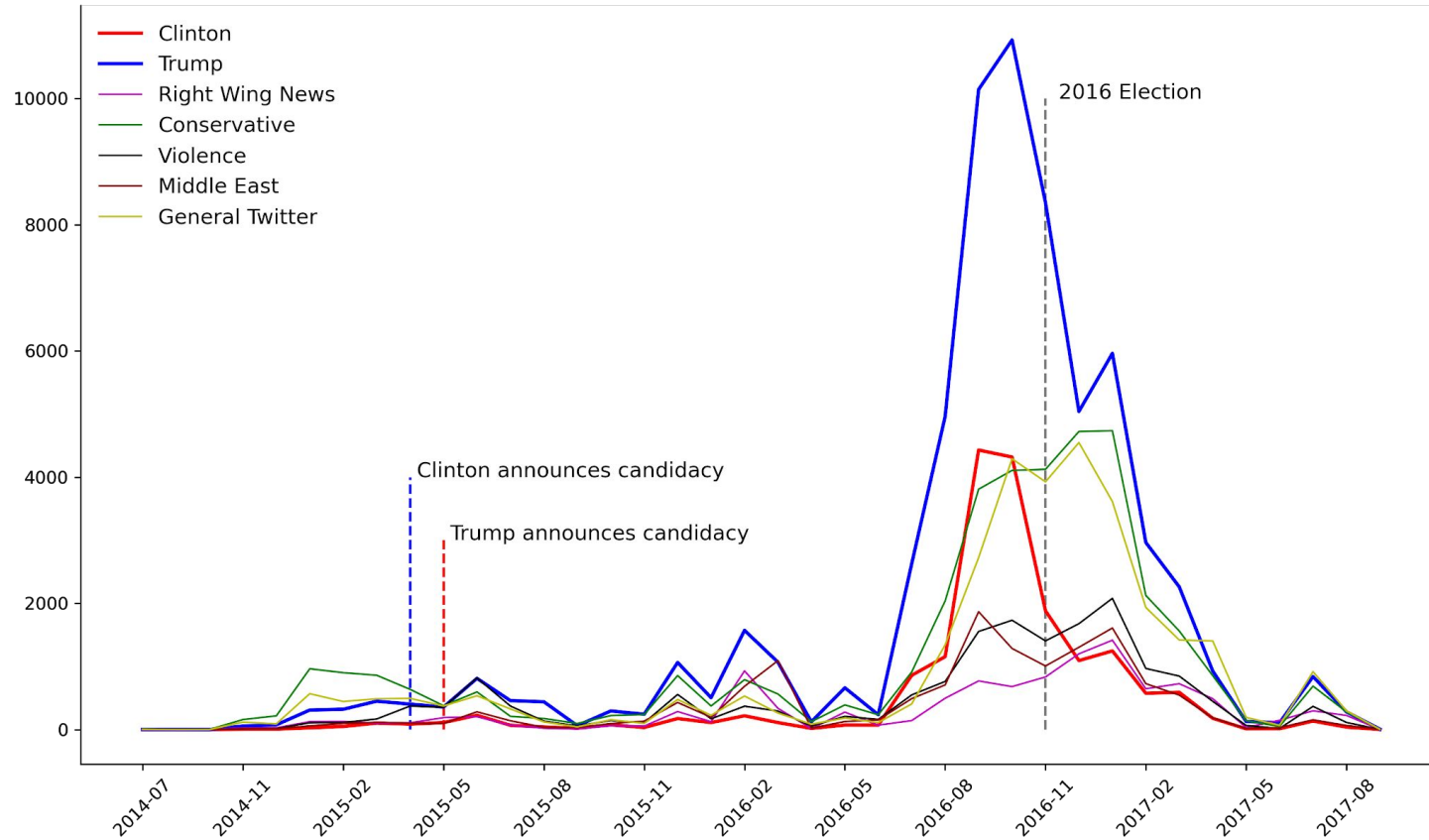
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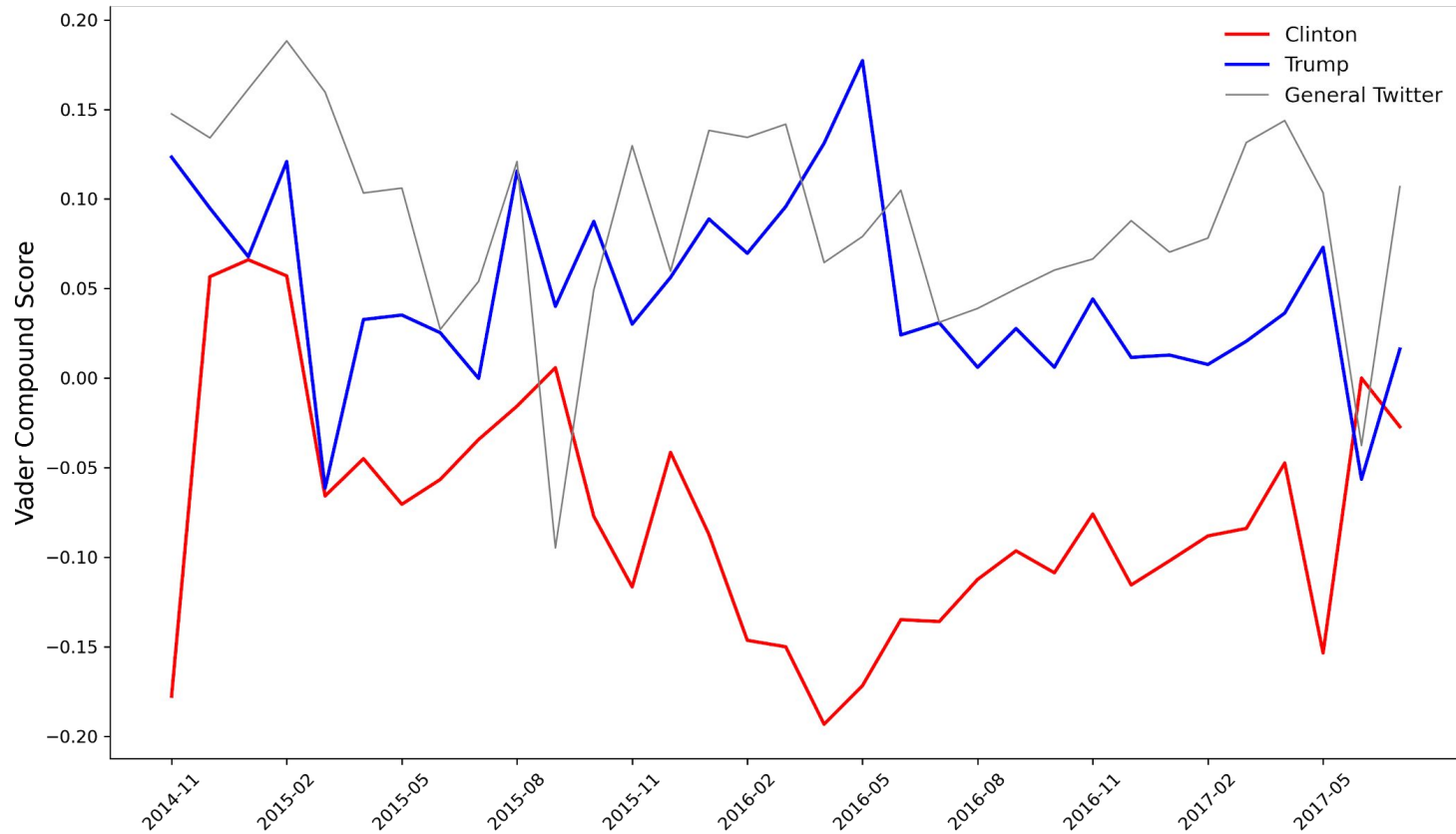


# The election became the goal...

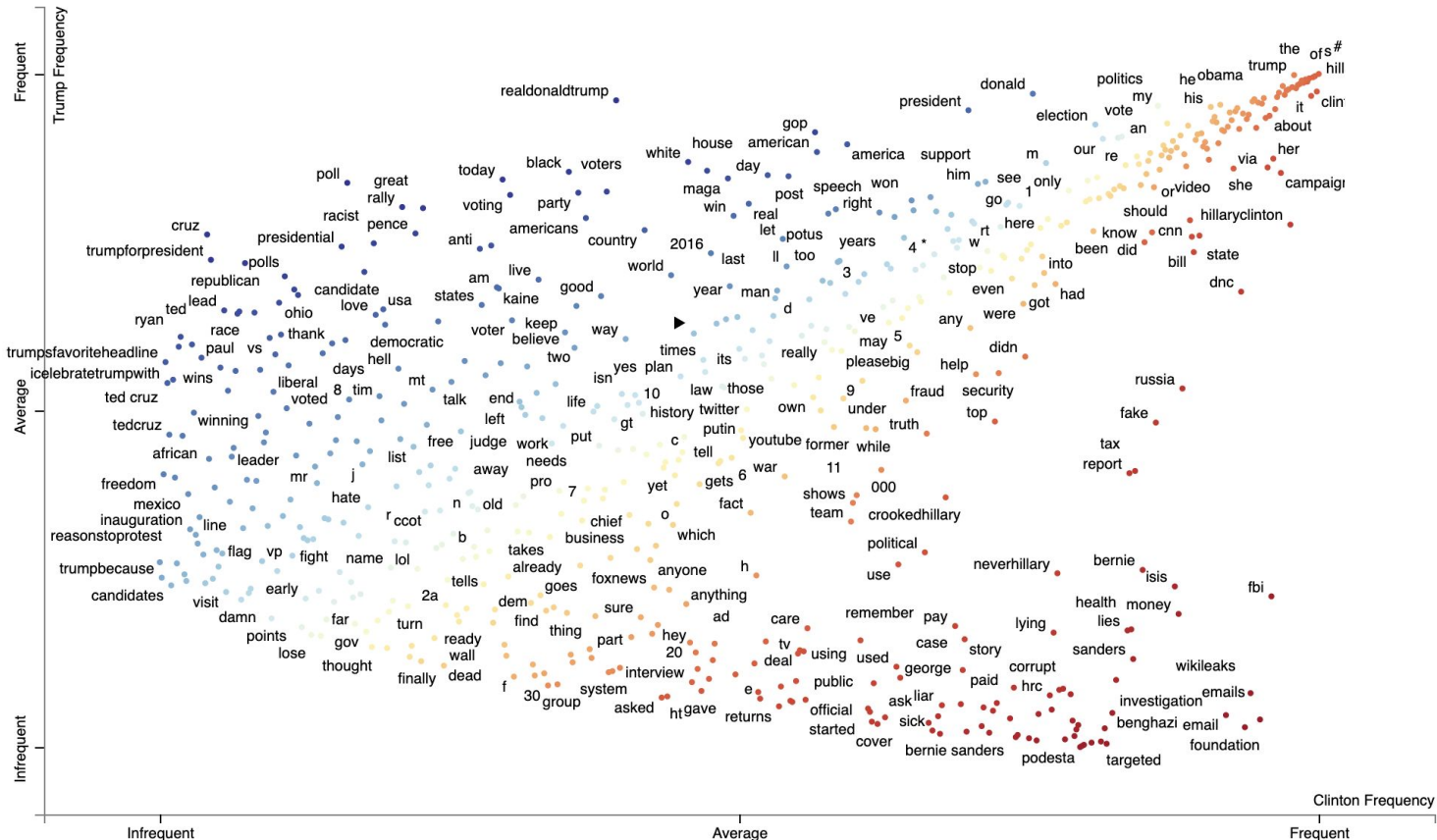




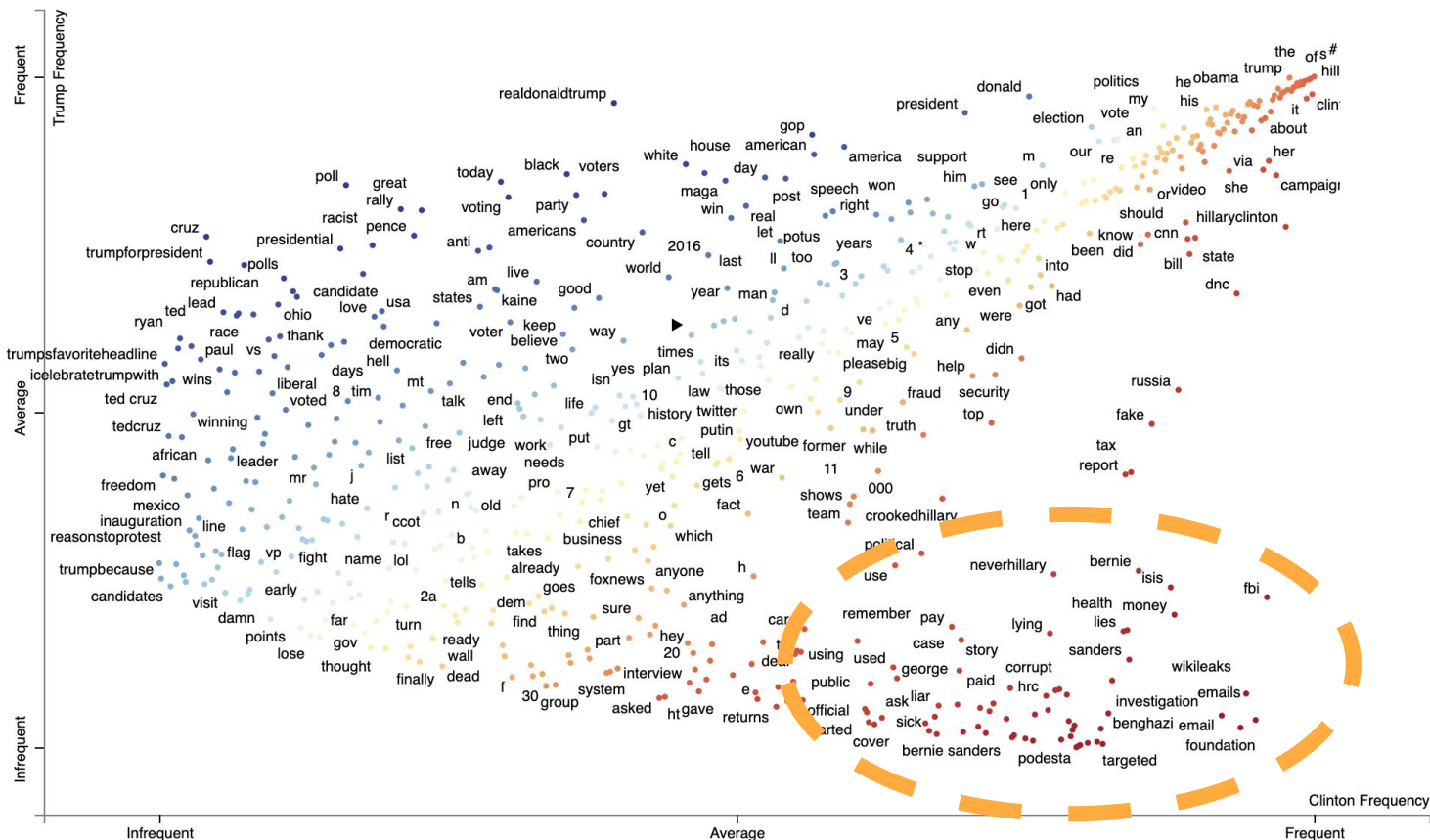
# ...and they clearly favored a candidate



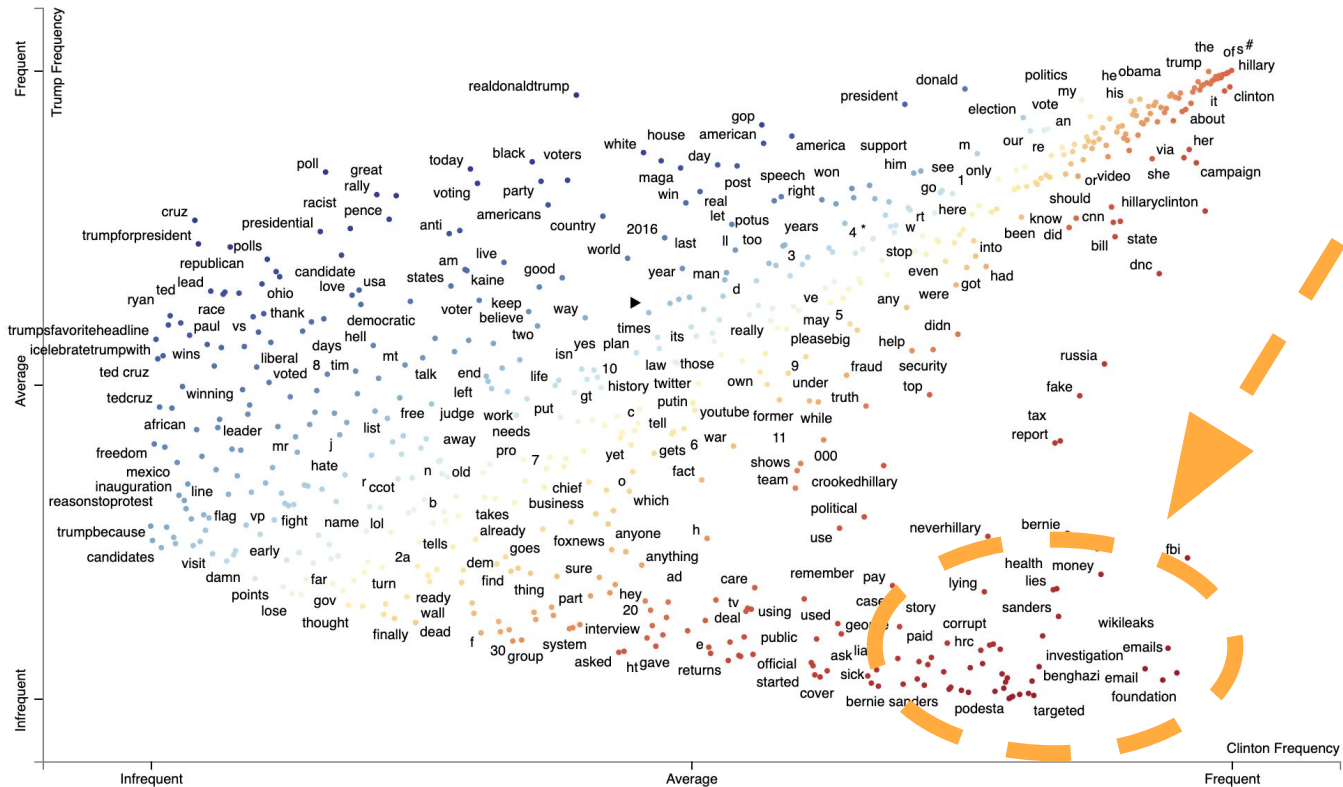
# Word frequencies by candidate



## Word frequencies by candidate



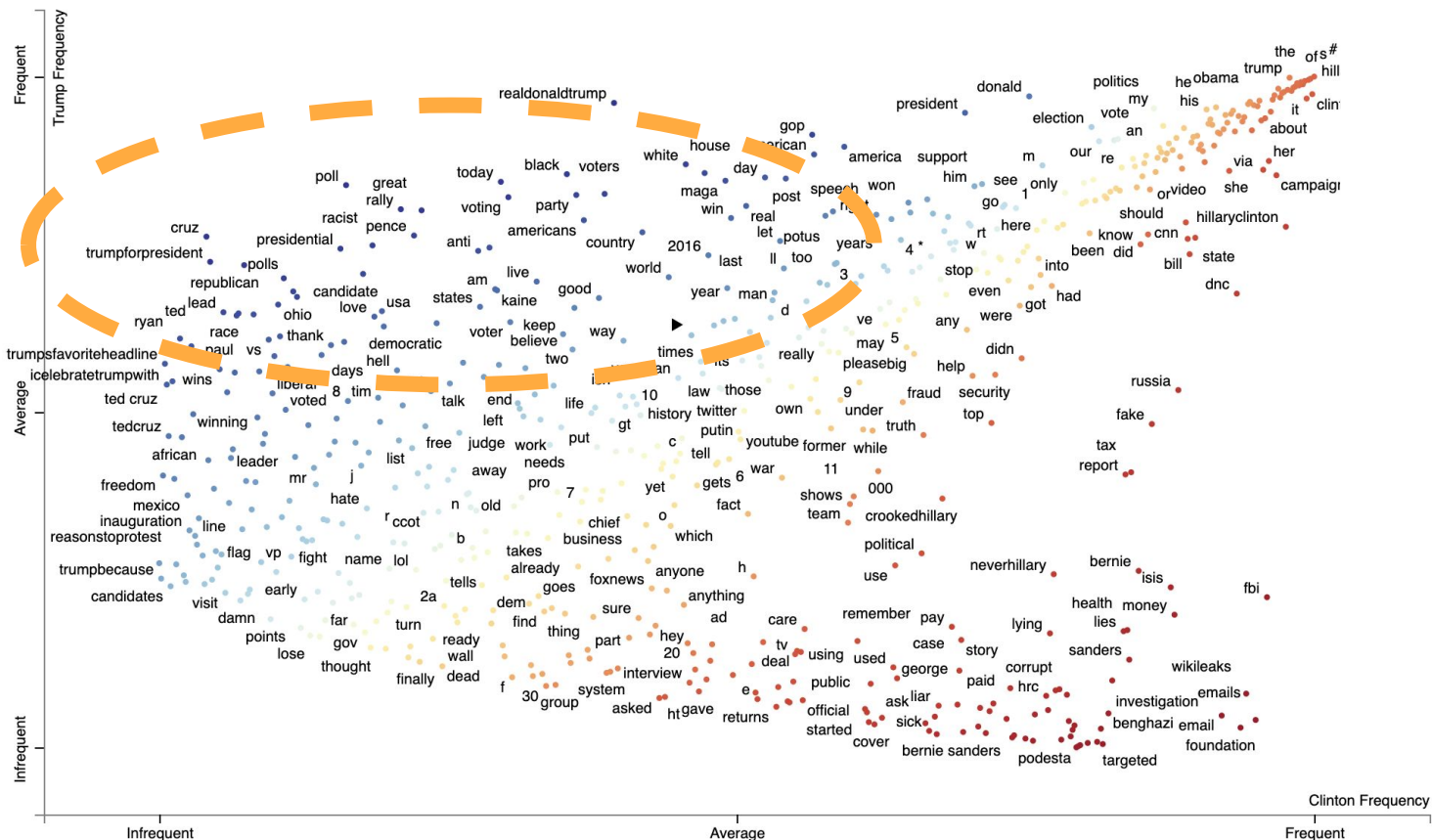
## Word frequencies by candidate



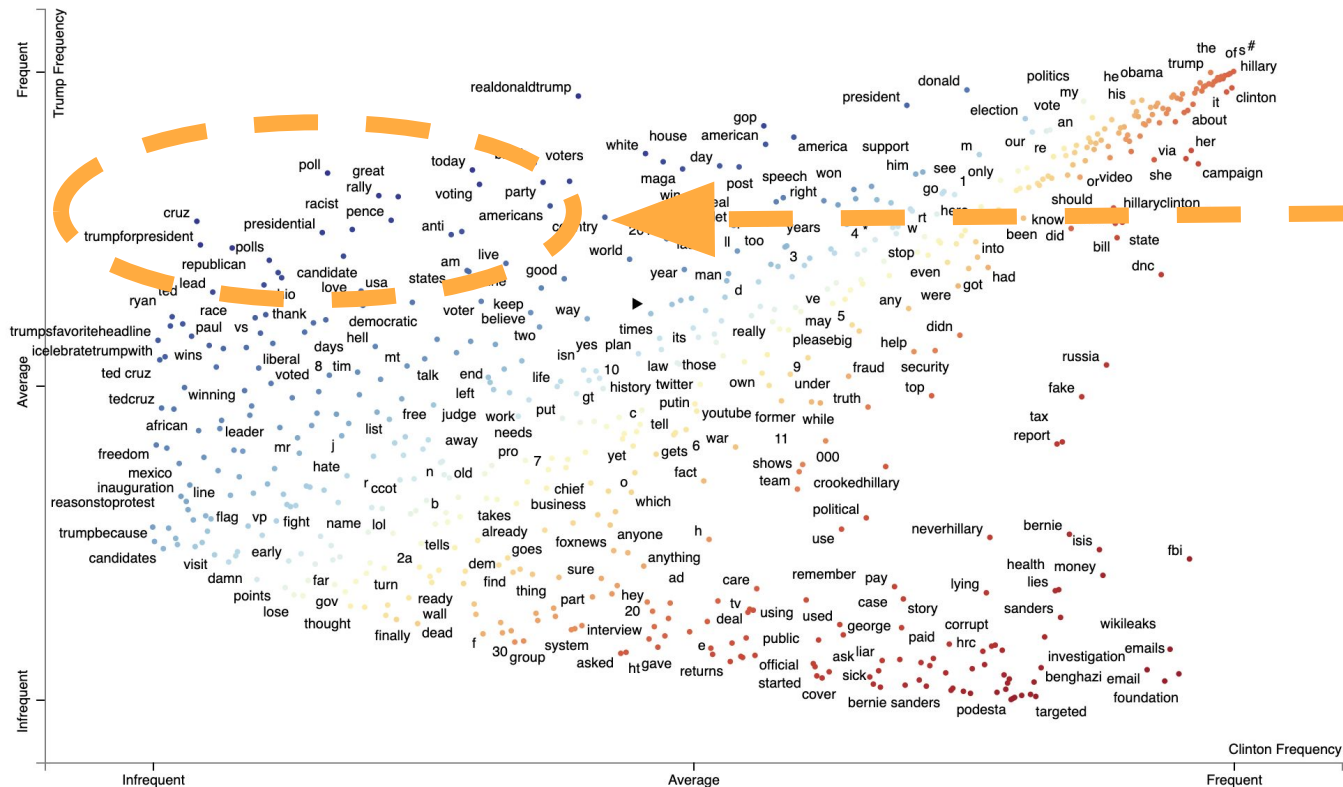
## Top Hillary Clinton words

- **emails**
- Wikileaks
- **Benghazi**
- FBI
- #neverhillary
- #crookedhillary
- **health**
- corrupt

## Word frequencies by candidate



# Word frequencies by candidate



## Top Donald Trump words

- **#MAGA**
- **#trumpforpresident**
- rally
- voting
- **Republican**
- presidential
- racist
- love

# #WakeUpAmerica

“**Russian accounts impersonated everyday Americans and drew hundreds of millions of followers,** exploiting terrorist attacks, the debates and other breaking news events.

# #WakeUpAmerica

“ Russian accounts impersonated everyday Americans and drew hundreds of millions of followers, exploiting terrorist attacks, the debates and other breaking news events.

[these accounts] pushed **graphic, racist and conspiracy theory-filled disinformation**, while flattering, arguing and cajoling more than 40 U.S. politicians, media figures and celebrities into interacting with and ***amplifying their propaganda.***”



# Remember Dean?



**Dean Browning** 

@DeanBrowningPA

Twitter is a weapon of war masquerading as a toy.

# Remember Dean.



**Dean Browning** ✓

@DeanBrowningPA

Former Lehigh County Commissioner. A proud pro-life & pro-2A Christian conservative dedicated to enacting common sense solutions to Keep America Great.

📍 Pennsylvania, USA 🔗 [csspac.com](https://csspac.com) 📅 Joined December 2015

**32.4K** Following **53.1K** Followers

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Conservative politician  
from Pennsylvania



# Remember Dean.

## Common Sense *Solutions*



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Verified Account with an impressive network!



**Dean Browning** ✓

@DeanBrowningPA

Replying to @ADunks5

I'm a black gay guy and I can personally say that Obama did nothing for me, my life only changed a little bit and it was for the worse. Everything is so much better under Trump though. I feel respected - which I never do when democrats are involved.

7:48 AM - 10 Nov 2020



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7:48 AM - 10 Nov 2020

This was 3 days ago...

# Final thoughts

**Trolling** and the spread of **misinformation** and **disinformation** aren't going away anytime soon...

- We can't rely on platforms to keep us safe -- though **we can and should demand more** from them!
- Healthy skepticism remains our best defense *for now*

# Final thoughts

**Trolling** and the spread of **misinformation** and **disinformation** aren't going away anytime soon...

- We can't rely on platforms to keep us safe -- though **we can and should demand more** from them!
- Healthy skepticism remains our best defense *for now*

## Suggestions for future work

- Continue to develop AI that can accurately detect misinformation, disinformation, and deep fakes
- Analyze content from major social platforms during the 2020 US Presidential election -- **continue to build awareness!**

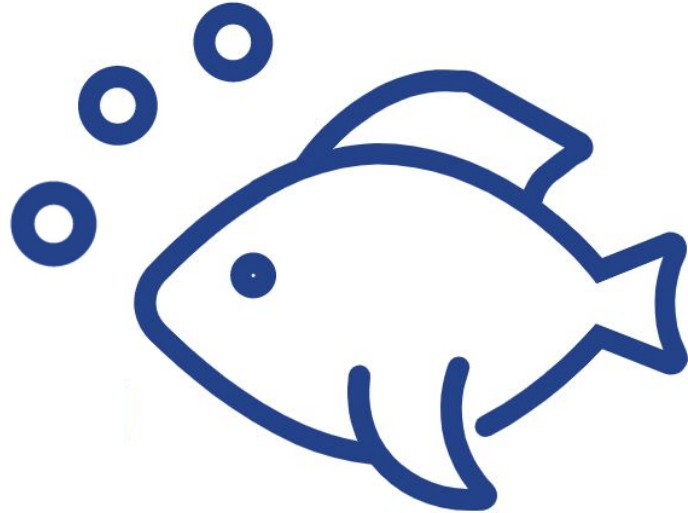


# Thank you!

Chris Doenlen

[scrapfishies@gmail.com](mailto:scrapfishies@gmail.com)

[@scrapfishies](#) (not a troll)



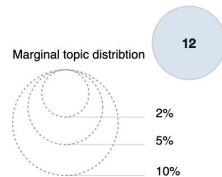
# Appendix: pyLDAvis Topic Modeling

## Topic Interpretation

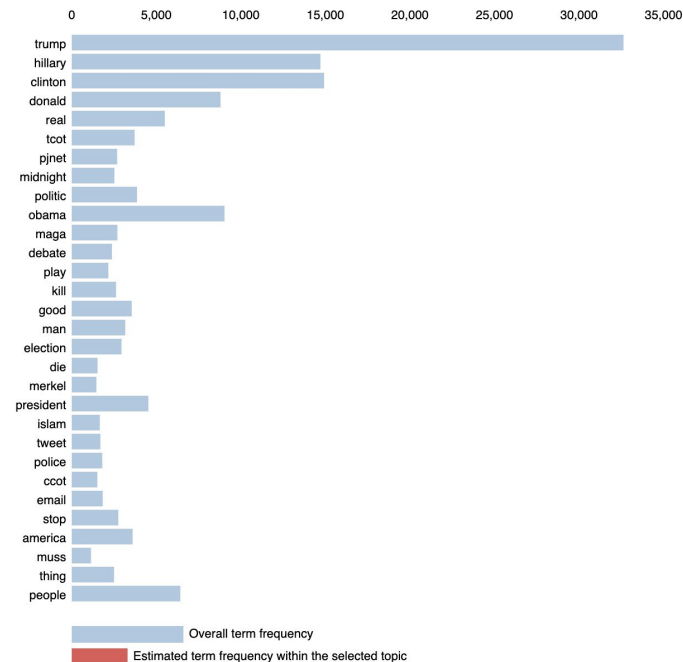
- Trump (1, 2)
- Clinton (4, 6)
- Violence (3)
- General Twitter (5, 9, 11)
- Middle East (8)
- Conservative (7, 10)
- German (12)

*Note: These topics changed slightly when more vigorously training the LDA model*

Intertopic Distance Map (via multidimensional scaling)

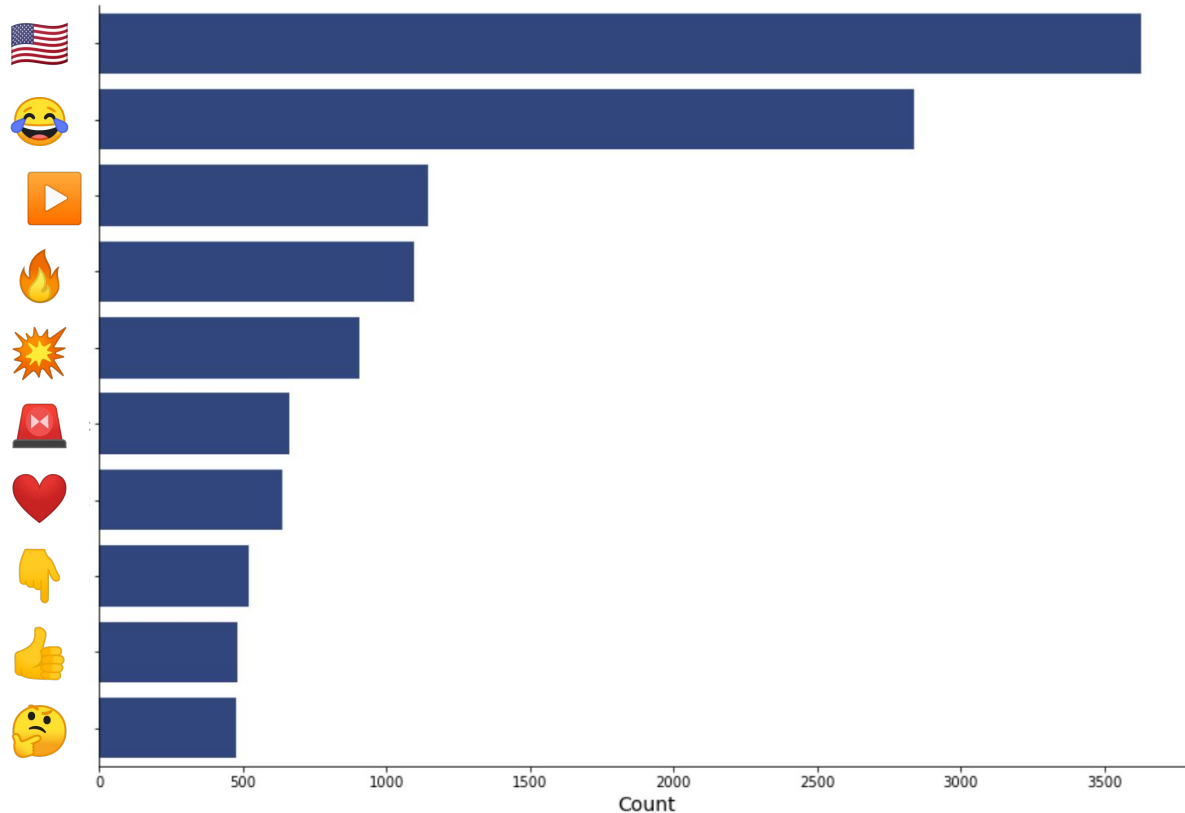


Top-30 Most Salient Terms<sup>(1)</sup>



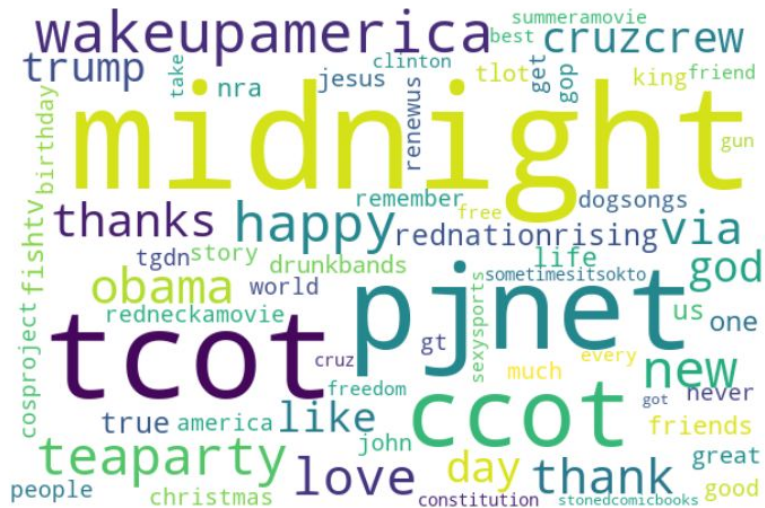
1.  $saliency(term, w) = frequency(w) * [\sum_t p(t | w) * \log(p(t | w) / p(t))]$  for topics  $t$ ; see Chuang et. al (2012)  
2.  $relevance(term, w | topic, t) = \lambda * p(w | t) + (1 - \lambda) * p(w | t) / p(w)$ ; see Sievert & Shirley (2014)

# Appendix: Top 10 emojis used

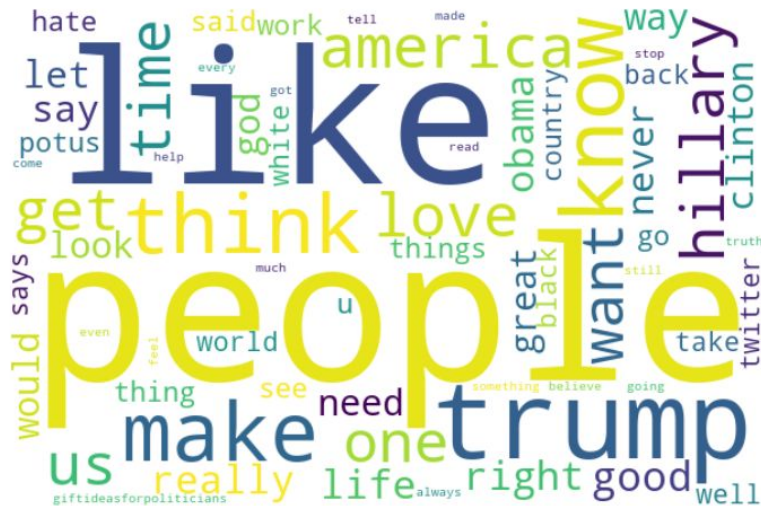


## Appendix: Word Clouds

## Conservative News

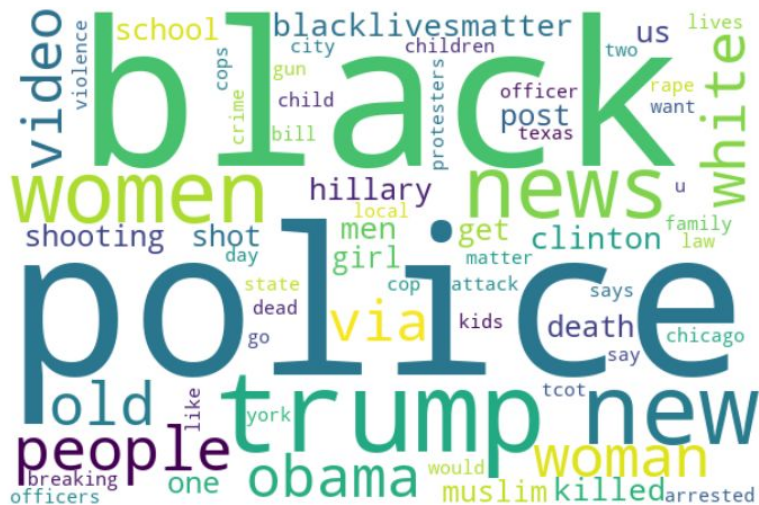


## General Conservative Chit-Chat



## Appendix: Word Clouds

## Violence in the news



## Middle East

