

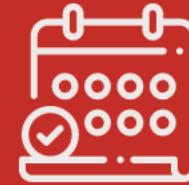
In The News: Predicting Winning Political Candidates From News Tone

LT 13 | Basak, Chua, Danao, Roberto



Can outcomes of elections be predicted
ahead of time by news coverage?

Manual polling & surveys



delayed



costly

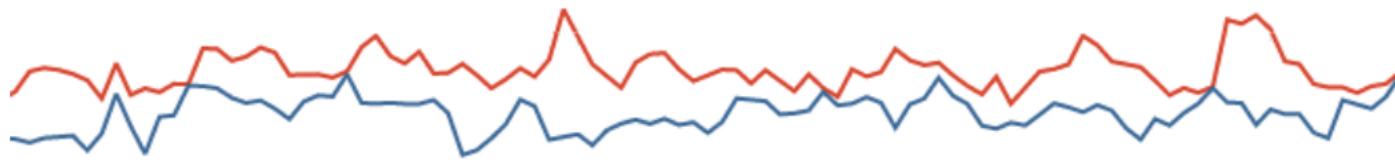


biased



Trump vs Clinton

A sentiment analysis on Twitter mentions



Sentiment analysis
social media monitoring





API constraints



bias & coverage



data privacy

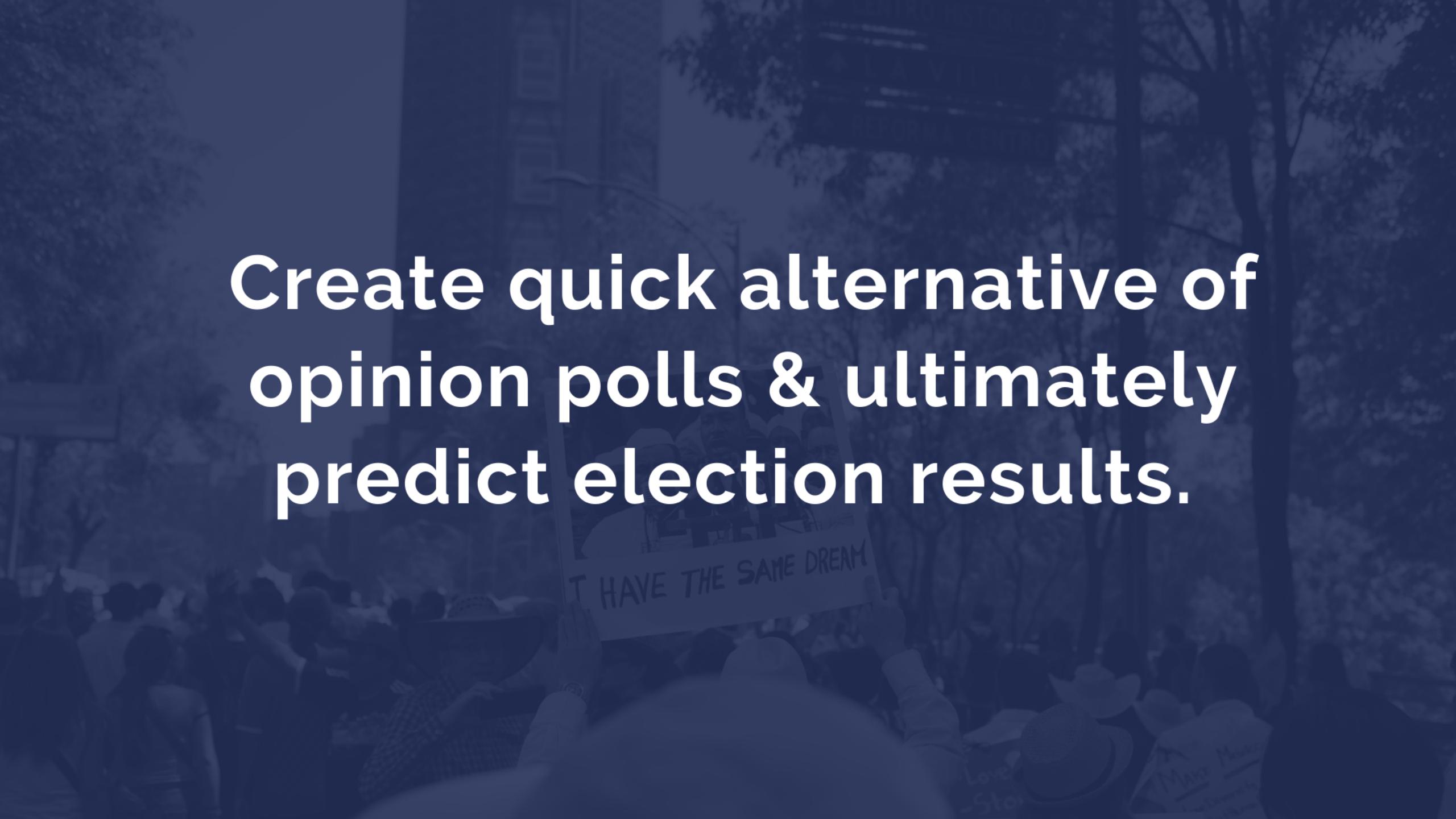


price

Sentiment analysis

social media monitoring



A dark, grainy photograph of a large crowd of people, possibly at a protest or rally. In the center, a person holds up a sign that reads "I HAVE THE SAME DREAM". The scene is set outdoors with trees and buildings visible in the background.

Create quick alternative of
opinion polls & ultimately
predict election results.

GDELT dataset

Global Database of Events, Language & Tone

102.9 GB

383 million rows
updated every 15 mins



Presidential Election 2016

Complete coverage of the 2016 presidential race and Donald J. Trump's victory.

Latest

Search

Oct. 2, 2016 **Putin Says He Doesn't Mind if Private Talk With Trump Is Made Public**

Days after his spokesman said the leaders' chats should remain secret, Mr. Putin said he had nothing to hide, and made light of charges of election interference.

By IVAN NECHEPURENKO



Dec. 26, 2018 **Donald Trump's Selective Service Records**

For many years, Donald J. Trump asserted that it was "ultimately" a high draft lottery number that kept him out of the Vietnam War, rather than a medical condition. But his Selective Service records, obtained from the National Archives, suggest otherwise.



Aug. 10, 2018 **Michael Avenatti Urges Democrats to Reject Michelle Obama's Advice on Trump**

Mrs. Obama said, "When they go low, we go high." In his first speech as a prospective presidential candidate, Mr. Avenatti told Democrats to "fight fire with fire" instead.

By MAGGIE ASTOR



June 14, 2018 **Democrats Find Vindication, and New Agony, in Report on Comey**

Hillary Clinton supporters saw the report on James Comey as proof the F.B.I. wronged her in 2016. "It's disappointing and infuriating," one ally said.

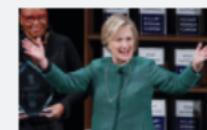
By ALEXANDER BURNS



Nov. 2, 2017 **Hillary Clinton Gets an Award and Tears Are Shed**

As the first anniversary of her loss to Donald Trump approaches, frustration and anger among her supporters seem more palpable.

By KATIE ROGERS



July 17, 2017 **THE DAILY**

'The Daily': Kris Kobach's Quest Against Voter Fraud

We get to know the de facto leader of President Trump's commission to investigate the 2016 election.

By MICHAEL BARBARO



May 10, 2017 **How Does Comey's Fall Play in Hillaryland? No One's Celebrating**

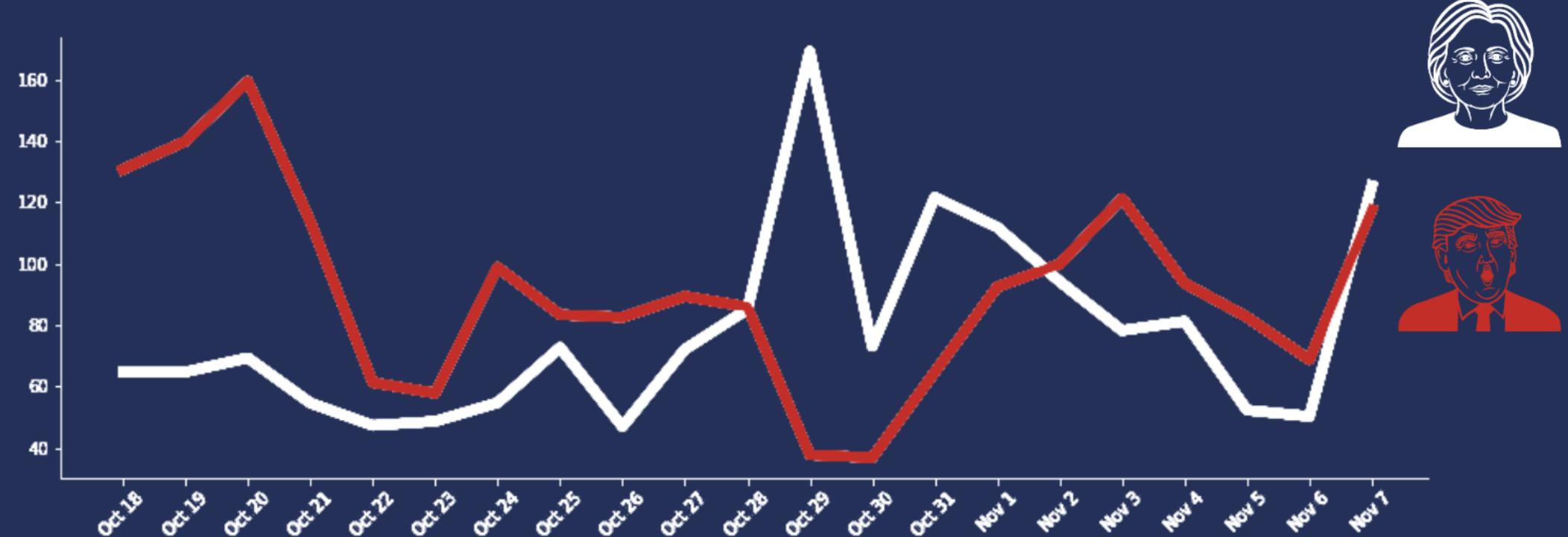
Hillary Clinton's satisfaction at seeing the F.B.I. director lose his job is offset by worries that it could derail the Russia inquiry, her friends say.

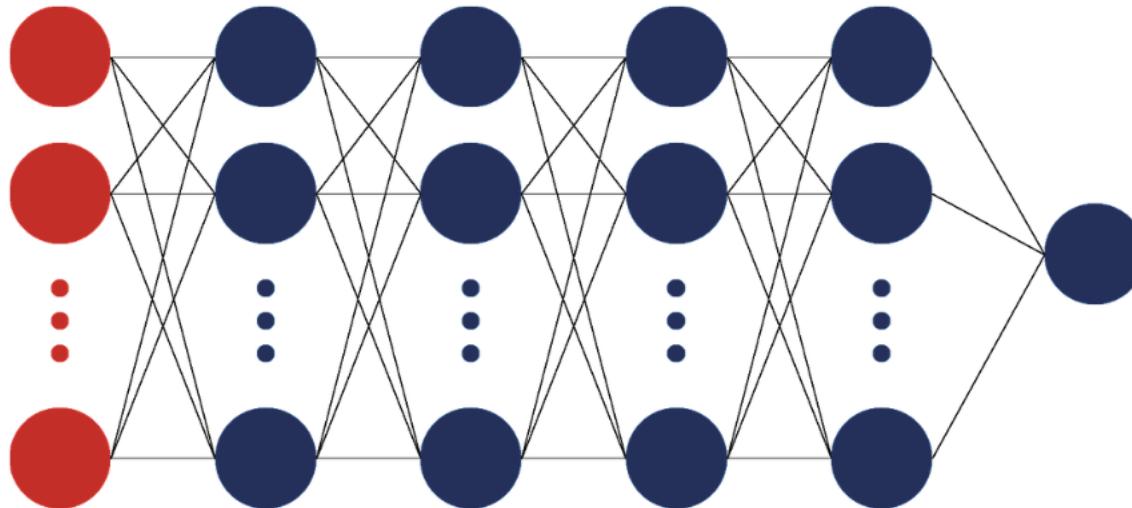
By MARK LANDLER



Wrangling big data

21-day chunks &
200 opinion polls





21 hidden nodes
2,332 parameters

Deep learning model

Predictive regression



R ²	97.1
MAE	2.5 ppt

*averaged over 100 trials

Results

Election Model



48.18%

42.11%



46.09%

41.78%



3.28%

5.83%



1.07%

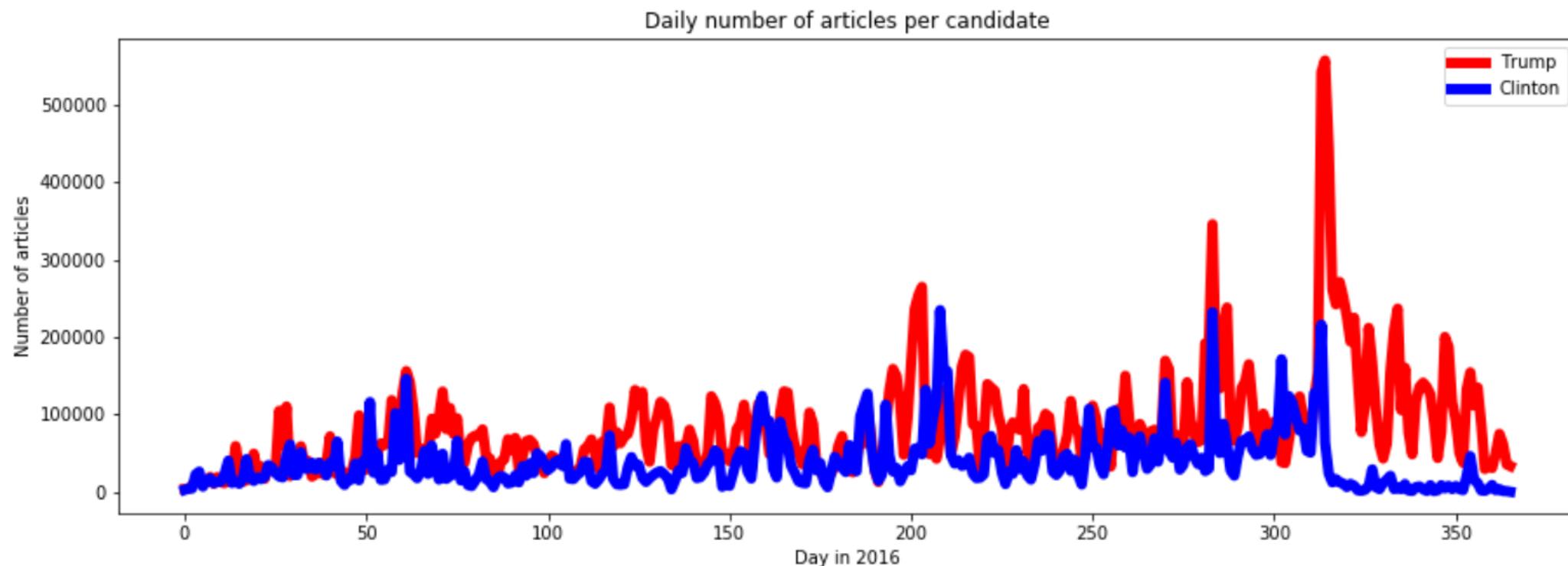
4.19%

Results

Actual

No. of articles

Successfully predicts winner by **popularity**





Conclusion



API constraints



data privacy



bias & coverage



price



convenience

Conclusion



Data may not be necessarily representative of an **absolute truth**, but it is the next best thing we have to an **objective reality**.