



A Week in the U.S. Election

A Machine Learning Study of
Media Coverage Trends for
Presidential Candidates



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To understand what may happen in a given week of election coverage, we analyzed more than 6,000 election-related articles that ran in top news sources during the beginning of August 2019.

POTUS dominates the news cycle

80 percent of all election coverage in the U.S. included a mention of the President. This may not be terribly surprising on the surface, but considering that the coverage we looked at includes state and even local election coverage, this does indicate how heavily the President plays into the conversation. In the press' view, POTUS plays a part in almost every election in the country, either helping or hurting the candidates. Furthermore, it's rather surprising to see how much more coverage--for good or ill--he gets compared to ANY Democratic candidate. The President got more than 4x times as much coverage as anyone else!

80%

of all election coverage
included a mention of
POTUS

4X

The President receives 4x
the amount of coverage over
any Democratic candidate

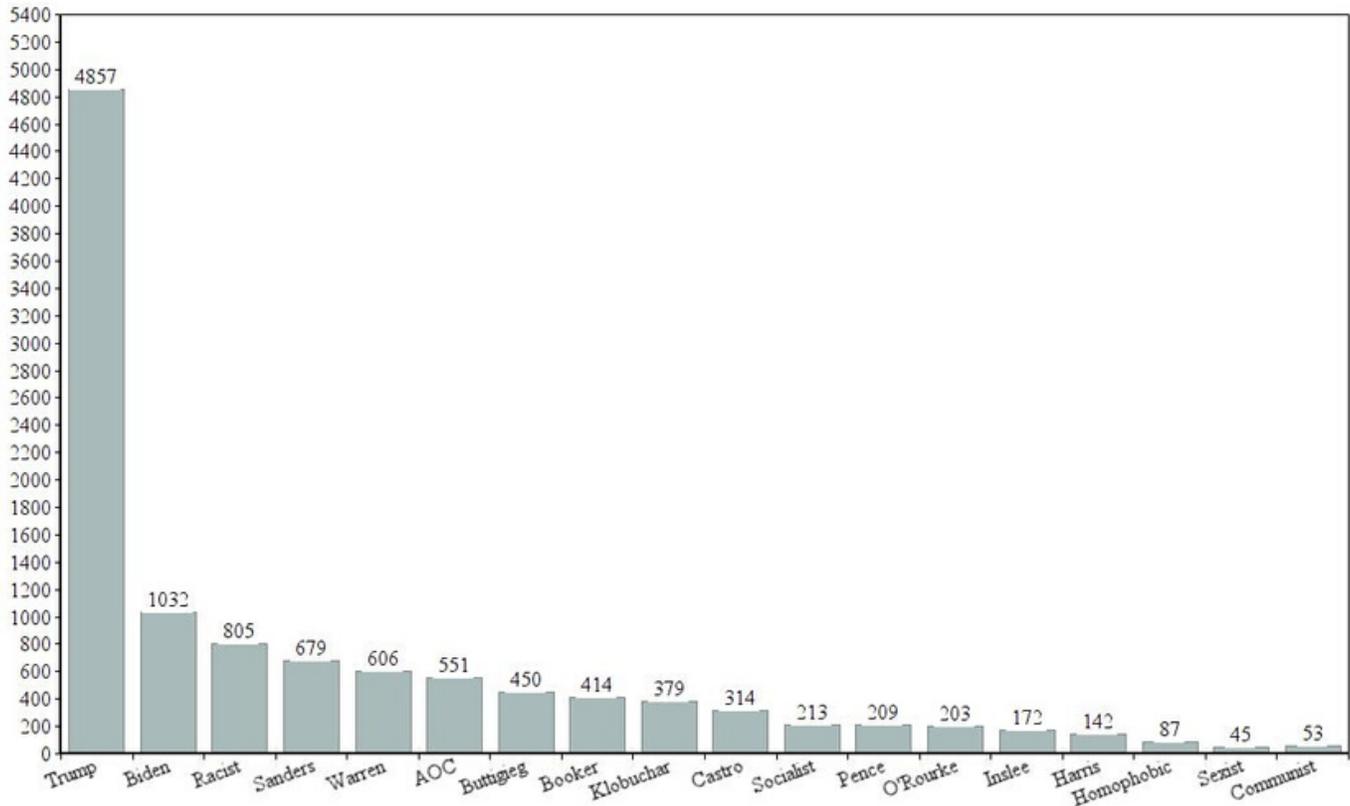
17%

of all U.S. election coverage
listed Joe Biden

11%

of all U.S. election coverage
listed Bernie Sanders

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Frontrunner Biden is also the media coverage 'frontrunner'

At a not-so-close second, Democratic front-runner Joe Biden was listed in 17 percent of all coverage. However, in terms of total coverage, he handily beat out his competitors, with Bernie Sanders being listed in 11 percent of the coverage, and Elizabeth Warren in 10 percent.

AOC gets massive coverage, despite not even being in the race

Interestingly, Alexandria Ocasio-Cortez, who is not running for president, appears in more coverage than all but the top Democratic candidates, beating out Pete Buttigieg, Cory Booker, Amy Klobuchar and Julian Castro in terms of total coverage.

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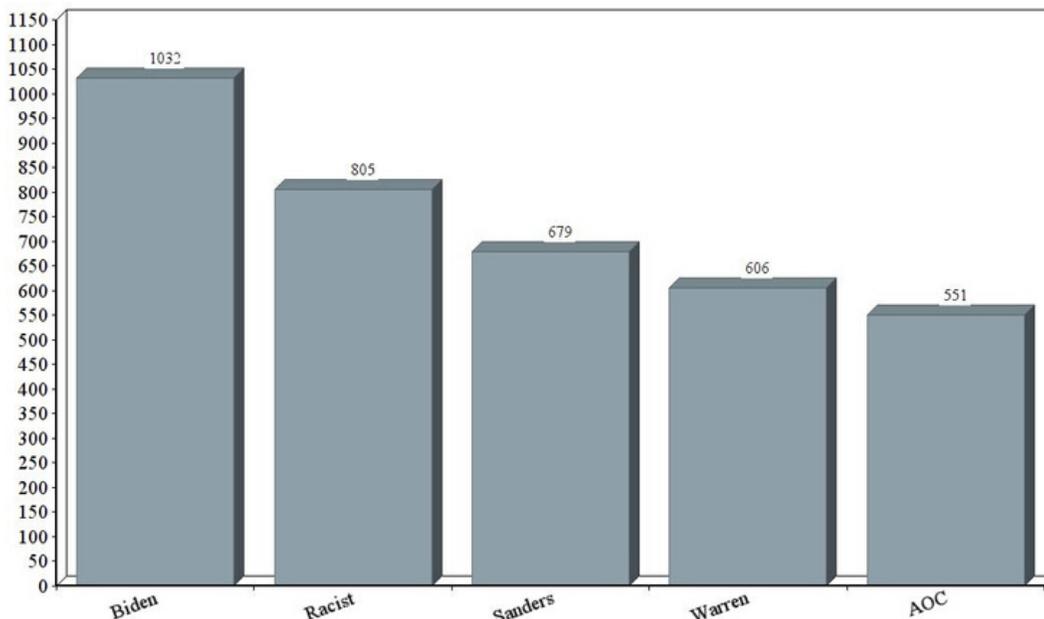


Inflammatory and accusatory language

Americans may not agree on much, but we can agree on one thing: this election will be a knock-down, drag-out fight, full of every kind of accusation imaginable. In order to discover relationships between various accusatory words and candidates, we applied a machine learning technique called Association Rules. This employs the Apriori algorithm to sort through data describing people's behaviors, and determine how frequently certain actions are accompanied by other actions. This technique, famous for analyzing shopping cart checkouts and video streaming habits, can be applied to a wide range of human behaviors, including journalist coverage of election topics. In particular, we were interested to learn how various negative or accusatory terms were used in conjunction with each other, and with candidates.

"Racist" appeared more than ALL Democratic candidates (except Biden)

With the exception of Biden and the President, the term "racist" appears more than any other candidate in the election. Clearly, to the U.S. press, racism and race-related issues are very important in this election cycle.



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It comes in threes: Homophobic, racist and sexist

"Homophobic", "racist" and "sexist" were by far the most predictive of each other, as terms. An article containing the term "sexist" was 50 times more likely to contain the term 'homophobic'. However, if an article contained the terms "homophobic" and "racist" it was 85 times more likely to also contain the term "sexist".

Socialists and Communists

Many of these terms, not surprisingly, were heavily associated with POTUS. For example, if an article included the terms "racist", "sexist" and "Trump" it was 57 times more likely to also contain the term "homophobic". Similarly, if an article contained the terms "sexist" and "Trump" it was 56 times more likely to contain the term "homophobic". Interestingly, if an article referenced both Mike Pence and Kamala Harris, it was 7 times more likely to contain the term 'racist'.

But the Democrats have to deal with their own accusatory terms. In particular, the term 'socialist' was heavily associated with virtually all candidates. For example, an article that included Biden, Castro and Klobuchar was 6.8 times more likely to contain 'socialist'. Similarly, an article containing Biden, Booker and Castro was 5.7 times more likely to contain the term.

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It should of course be noted that not all of the politicians in this study consider 'socialist' to be a bad thing at all, and both Sanders and AOC embrace it. "Communist", however, is universally avoided like the plague in American political discourse. While the term was used relatively infrequently in general (in only about .8 percent of the articles, compared to 'socialist' which appeared in 3.5 percent of the articles), the combination of candidates was a determinant in whether or not it was included in an article. As it turned out, if an article contained a reference to AOC, Pete Buttigieg and Elizabeth Warren, it was 15 times more likely to contain the term "communist". If an article contained AOC, Buttigieg and Sanders, it was 13 times more likely to contain the term "communist".

As what is sure to be one of the most interesting elections in U.S. history unfolds, it'll be fascinating to continue to watch the trends in news coverage.

Sources

Data for this study was collected using Meltwater, and analyzed using RStudio.