

Anna Parker & Joy Wood

### How to deploy the project:

Our map represents the results of the 2016 political primaries. Using the dropdown menu, choose either a specific candidate or a political party to view.

If a candidate is selected, states are colored according to the percentage of votes won by that candidate in a state. Mouseover a state to see the percentage won by the chosen candidate in that state.

If a party is selected, states are colored according to the winner of that state's primary. Mouseover a state to see a breakdown of all the candidates who competed in that state's primary.

\*Grey indicates that either a state's primary has not yet occurred or the selected candidate did not compete in that primary.

Our themeriver represents the amount of twitter buzz surrounding each candidate over the course of the primary season. Each "stream" of color represents a different candidate, and the width of the stream represents the "twitter buzz" of the candidate at that time.

Click on a state to view the twitter data for that specific state in the themeriver. Click the reset button (next to the themeriver) to view the twitter data for the entire country. Mouseover any state and the themeriver will highlight the section in which that state's primary took place.

### Why this visualization?:

#### **Political "Buzz", and how it informs the Race for the White House.**

The concept of this visualization was born from the observation that in America, country-wide races are about more than a candidate's experience, their record or their position on issues. If that were true, why would candidates pay college graduates to run their twitter and facebook accounts? Why would President Obama appear on "The Tonight Show" four times as a sitting president? It seems that American voters, that varied red, white and blue mass, need to be interested. To earn this "American" vote, candidates must be talked about. They must be engaging, funny, charming, attractive, disgusting—anything, as long as someone's talking about it. Candidates must generate a buzz.

Of course, this is difficult, perhaps impossible, to quantify. What is buzz? How do you know what people think about, what they find interesting, what they talk about with their friends? Where do you look? We decided to quantify buzz using twitter data. Of course this is not a perfect representation—political buzz is generated from and with many other mediums. But in a broad sense, people tweet about a candidate because they find them interesting—because they want to comment on something a candidate's done or said.

Note that, in this twitter data, we do not differentiate between the positive and the negative. We want to visualize the relationship between a candidate's political success and the *amount* of conversation about this candidate, not the type of conversation. By comparing this quantity of buzz to the success or failure of different candidates in the 2016 primary elections, we have created a visualization that explores the question: Has political buzz influenced the 2016 United States presidential primary elections? We hope this visualization will interest anyone who has an interest in the state of the American political system.

#### Data:

**2016 primary information:** Although we found datasets online that claimed to have the primary info, they all turned out to be inaccurate. Instead we created our own csv using a dataset in excel that held the candidates and the states of the first half of the races we wanted to cover. We included the remaining half of the races, and the date, party, and percentage won for each part of the data.

**Twitter data:** We stole (only joking!) (kind of) this data from a chart made by twitter to represent the 2016 primary election. The chart is a line graph that compares the amount of twitter buzz about each candidate throughout the election season. The amount of buzz is calculated by adding the number of tweets about a candidate to the number of times another user engaged with a tweet about a candidate. We used python to pre-process the data—the themeriver requires a value for every instance and this dataset was missing values (if the candidate was too unpopular or had dropped out) so we added zeros to all of the missing slots.

#### Description:

We represent the primary data with a map, the obvious choice since primaries occur in each state and we wanted the chance to compare the relative colors of states.

The map has two “states”, which correspond to two separate vis functions (vis and visParty)—the first represents the percentages won of individual candidates and the second state represents each of the two parties. The different states offer different perspectives depending on how the user wants to explore the data: either they can see the entire party, or they can focus onto one specific candidate. The dropdown menu allows easy access to changing the view of the map.

In the party-map, the color is the candidate who won that party's primary. The hover tooltip shows the proportion won by all candidates who competed in that primary. In the individual map, the color represents the proportion of votes the candidate won in that state, and the tooltip gives the exact proportion. Both tooltips contain the date of the primary so that users can connect the map visualization with the tooltip visualization.

We had initially considered using two maps to represent this information—one map for party and (simultaneously) a second map for individual candidates, but we decided that the visualization was hard to follow—too much was happening. But we didn't want to remove either version of the map, because we believe they both provide information in the relationship between a successful candidate and social

media buzz. Instead, we opted to let viewers choose their map form, so that they could focus on each part one at a time.

We coordinated the colors into the same scale for all 3 sections (both maps and the themeriver) so that its easy to track candidates across different visualizations. For the whole-party map and the themeriver, this means the candidate has his/her own solid color. For the individual candidate map, we set the proportions of votes won from light grey (low proportion) to their “color” (high proportion), so that if a candidate did well in a primary, their color is the brightest.

The themeriver uses a stacked bar chart format to compare the “buzz” of different candidates. It has a timeline that users can use to compare the primary dates (shown in the tooltip on the map) to the map itself. In our dataset, the dates were split into “buckets” to make the tooltip dots, and when a particular state is clicked its bucket is highlighted in the timeline. This makes it easier for users to integrate the two visualizations and to track the relationship between the success of candidates and their political buzz.

### Evaluation:

We would improve this visualization by providing a better timeline—both with more specific dates and with relevant “events” in the primary races (when primaries happened, when candidates dropped out, etc.) Then we would make it easier to filter the map by the timeline events. Currently the visualization filters the themeriver in a useful way when we click on the map, but we could also do it the other way around. For instance, if we click on an event in the timeline that represents the Ohio primary, it could highlight Ohio on the map.

It’s also not immediately intuitive for users how to interact with the map or how the two maps relate, so we could make the graph more user friendly.

We think that this data clearly represents the relationship between twitter buzz and the 2016 primary election without trying to force a conclusion onto the viewer. It’s always satisfying to create a visualization that draws a more complete conclusion. However, our question cannot be answered in a True/ False way.

In a dream world, we’d have an accurate barometer for “buzz”. The twitter data is clearly not a holistic representation of interest levels about a candidate. However, while it’s obviously necessary to recognize the shortcomings of any dataset, we think that it’s also important to not limit visualizations to cut-and-dry, simple datasets. We see visualizations as a tool, as a way to consider and better understand the world. For us, this visualization is successful because it poses a question we believe is relevant about the state of American politics. We hope that it provokes thought and conversation.