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Words that Divide Us:

A visual exploration of Russian troll tweets

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Intro:

What does it mean to spread propaganda in the digital age? In the 20th century, distributing propaganda was synonymous with an airplane flying overhead and dropping leaflets filled with misinformation. Today, methods of sharing purposefully false or politically charged information have become more sophisticated but their general purpose remains the same: to influence public opinion. The most famous recent example of modern propaganda is Russia's [interference](#) in the 2016 U.S. presidential election.

So what did Russia actually do? They paid operatives to create fake social media accounts. These accounts shared opinions and rhetoric that Russia believed would further polarize the left and the right. Although the 2016 election was a focal point, the Russian trolls first started posting in 2014, and [posts have continued](#) through 2017. A Congressional investigation resulted in the public release of the Twitter accounts of these Russian trolls.

This topic is relevant to *Hit Refresh: Critical Perspectives on Technology* because of our focus in Week 6 on Memes and Social Media. In class, we looked at the Mueller report and examined Twitter tweets that were submitted to the House Intelligence Committee. Those individual examples were illuminating, but we realized that we wanted to better understand the Russian content.

For our final project, we decided to ask a simple question: What phrases did Russia think would polarize U.S. residents? In other words, how does a foreign actor actually craft propaganda in 2018? Thanks to the website FiveThirtyEight and two professors from Clemson

University, we had access to a [database](#) of over 3 million Russian troll tweets that had been labeled and processed.

Visualization Specifics:

We created an interactive data visualization that, for each month between July 2015 - December 2017, lists the top ten most common two-word phrases in the Russian tweets. Additionally, we filtered each month by the tweets that were intended to engage the political left and tweets intended to engage the political right. The user can click between the months and compare which phrases were most popular during that particular time frame.

Our goal with this visualization design was to make a database of 3 million tweets quickly understandable by the user. For each tweet, we removed all special characters (including the # symbol). We then counted the occurrence of each two-word phrase within a tweet and summed the results for month-long chunks. We chose two-word phrases because (most of the time) they succinctly summarized the sentiment of the trolls. Three-word phrases quickly got confusing or filled with gibberish and one-word phrases didn't give enough context. We chose a time frame of one month increments because we wanted to identify trends in the data. A list of the most common phrases by day proved to be too sparse and filled with random words. A list of the most common phrases by year was too vague and didn't allow us to examine the phrases in detail.
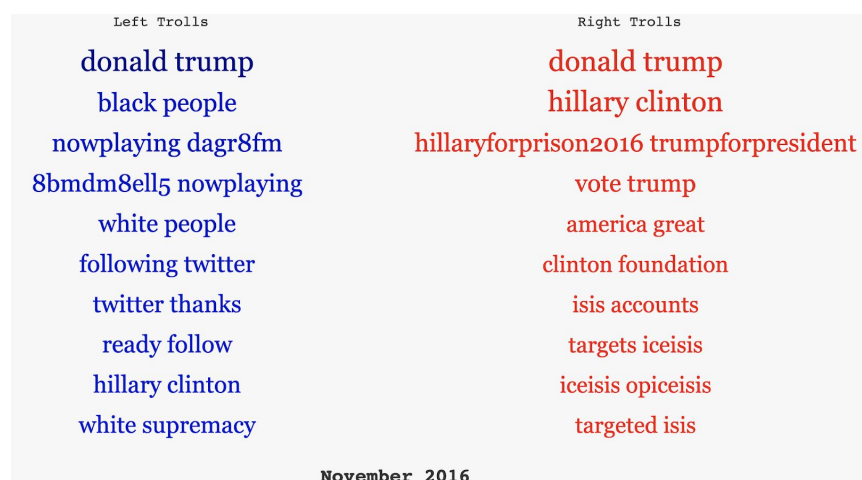
Analysis:

Using our visualization, we were able to do some preliminary analysis on the tweet content. Ideally, a user will be able to explore and make their own conclusions, but here are some of the content trends we have identified:

- Left has a consistent underlying topic throughout (police brutality, black lives matter) while the Right shifts topics more frequently and focuses heavily on specific names and events

Left Trolls	Right Trolls
year old	donald trump
african american	james comey
high school	president trump
black man	jeff sessions
black woman	white house
philando castile	fake news
black people	loretta lynch
black women	steve scalise
lives matter	megyn kelly
12 year	virginia shooting

June 2017

- Both sides most paired words in November 2016 is Donald Trump

Left Trolls	Right Trolls
donald trump	donald trump
black people	hillary clinton
nowplaying dagr8fm	hillaryforprison2016 trumpforpresident
8bmdm8ell5 nowplaying	vote trump
white people	america great
following twitter	clinton foundation
twitter thanks	isis accounts
ready follow	targets iceisis
hillary clinton	iceisis opiceisis
white supremacy	targeted isis

November 2016

- Both sides had bits of gibberish, likely indicating bot spam accounts (or parts of hyperlinks)

**screenshot from August 2017

- After July 2017, overall tweets from Right Trolls far outnumbered tweets from Left Trolls

Conclusion:

Based on these insights, we argue that the trolls believed that issues of racial justice and police brutality would consistently agitate the left. Every single month mentions a phrase like "blacklivesmatter" or a figure like "colin kaepernick" is mentioned. On the right, we argue that the trolls believed a variety of conservative flashpoints would be effective. The topics range from "fake news and "cnn fakenews" to "north korea" and "planned parenthood".

Ultimately, we hope that this tool will be useful for anyone who wishes to understand *how* Russian trolls spread misinformation. We have two features we want to add: 1) When hovering over a word, we would like to display the full text of a tweet that contains this phrase. 2) For certain phrases that aren't self explanatory, we would like to add a pop-up that explains the significance of the phrase. For example, the phrase tcot looks like gibberish but actually is a hashtag that stands for #TopConservativesofTwitter.