

Final Project

for

Digital Humanities: Tools and Methods

“The Comparative Analysis of Obama and Trump's Tweets in Russia’s Coverage”

by Michael Ianovitskii

S5054710

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The study aims to identify the correlations and patterns of Russian themes in two datasets of tweets by Presidents Obama (for the period of 2011-2016) and Trump (for the period of 2011-2019) and establish a causal link between their semantic connotations.

Although I do not know whether the difference in the time span of the two datasets will impact the quality of the analysis, I assume that it will mainly affect the difference in the volume of the two datasets, which will only have a minor influence on the overall result of the analysis.

Throughout their careers, both presidents have repeatedly addressed the Russian issue and used it for various purposes - to advance domestic policy debates, to deflect attention from external issues, and during election campaigns.

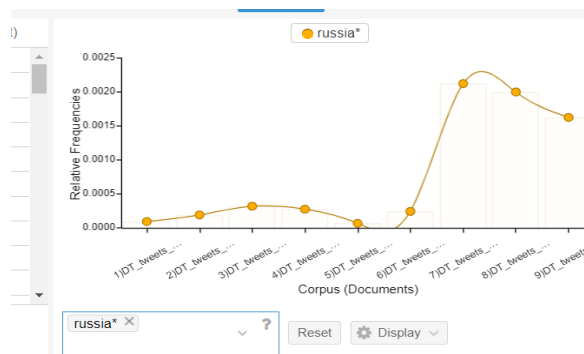
But I assume that the connotation and approach to the treatment of Russian issues in Obama's and Trump's tweets differed substantially. The charts below show the correlation between two patterns in Donald Trump's tweets from 2011 to 2019 and two patterns in Barack Obama's tweets from 2011 to 2016 respectively.

#1a demonstrates the frequency of "Russia" in Donald Trump's tweets in the timescale from 2011 to 2019. Since the beginning (2011), the frequency trend has remained roughly at the same level, but in 2016 a sharp rise begins, peaking in 2017 and then falling back to previous levels.

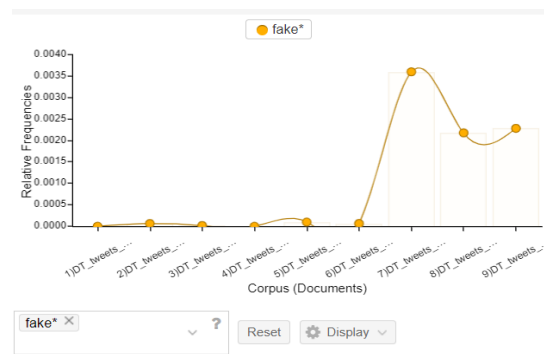
#1b depicts the frequency of "fake" in Donald Trump's tweets in the timescale from 2011 to 2019. The trend is almost exactly the same as shown in Graph 1a, with a low rate from 2011 to 2016 and a spike in mentions in 2017

#1c demonstrates a sharp spike of the 'Russian' stem in Obama's 2014 tweets, attributed to his active rhetoric over Russia's annexation of Crimea and need for imposing sanctions against Russia in that period.

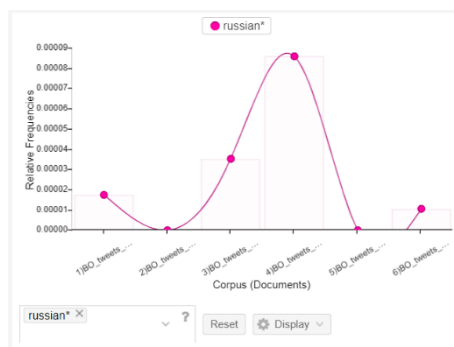
#1d illustrates the spike of the 'aggression' stem in Obama's tweets in the abovementioned period.



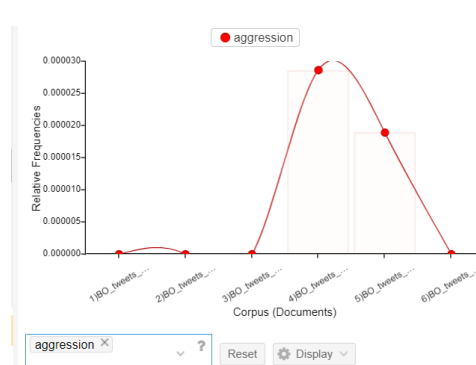
#1a Russia stem – Trump



#1b Fake stem - Trump



#1c Russian stem – Obama



#1d Aggression stem - Obama

Nevertheless, in Graph #1b, the decline in 2018 is significantly greater than in Graph #1a - suggesting a decrease in the topic of fakes in Trump's speech but a continued interest in Russia, while Graphs #1c and #1d while Graphs 1c and 1d present an almost identical pattern.

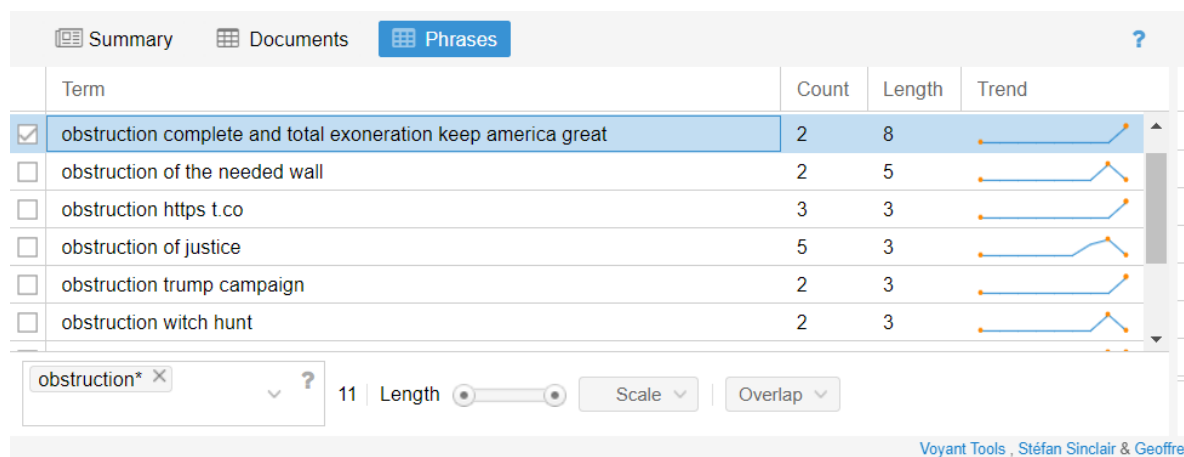
Looking at the media agenda during this period, it is easy to see a trend - this is when Trump had to face allegations of collusion with Russia as a result of the investigation into his campaign organization.

This is underlined by the collocations structure of tweets archived from the same period (Graph #2a, #2b). The most popular collocations for 'Russia' are 'collusion' (99) and 'hoax' (37), which clearly demonstrate the Trump's refusal to admit the charges (#2a). Proof of the connection between the accusations of meddling in the U.S. elections of Russia can be seen in the clear combination of the term 'hoax' with the words 'collusion', 'Russian', and 'Russia' (#2d).

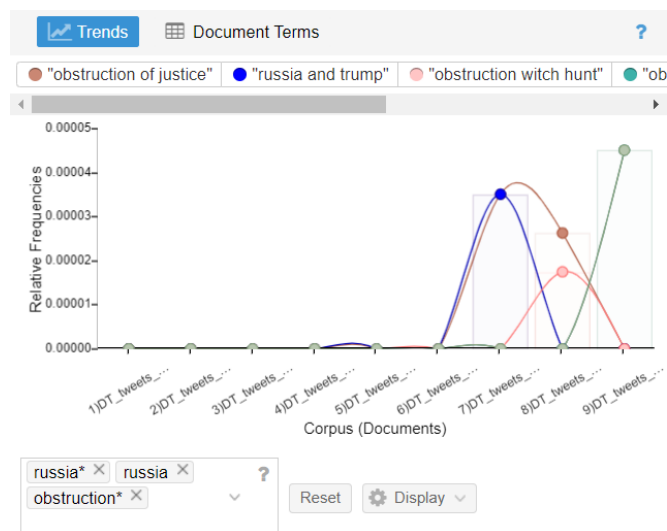
In contrast, Obama's tweets show a tendency to criticize Russian policies. This can easily be inferred from the chart of the most used words - 'Ukraine', 'aggression' and 'actions' (#2b). As could be seen from graphs #2e, #2f collusion is linked to 'Russia', 'Trump', 'campaign', 'democrats' and 'obstruction' in tweets of Trump, while for Obama 'aggression' is correlated

with 'Ukraine', 'president', 'dominated' and 'b4tql36emn'. All the linked Trump words presumably explain the controversy surrounding his campaign scandal about Russian meddling. For Obama the associated words describe his military controversy and 'b4tql36emn' is the official address of Obama's now archived official tweeter account [WhiteHouseArchived](#).

'Obstruction' stem is an important part of Trump's rhetoric – as it covers several topics – Trump campaign, 'witch hunt' – a collusion scandal (Russia interference), 'obstruction complete and total exoneration keep America great' (a famous quote from Trump's response to [Mueller Report](#)). (#1e). As shown on the graph #1f the spikes of 'obstruction' were in 2016, 2017 and 2019 and represent the steps of collusion case.



#1e Phrases used for tweeting 'obstruction' topics – Trump



#1f Russia-obstruction phrases correlation - Trump

	Term	Collocate	Count (context)
<input type="checkbox"/>	russia*	collusion	99
<input type="checkbox"/>	russia*	trump	56
<input type="checkbox"/>	russia*	hoax	37
<input type="checkbox"/>	russia*	hunt	35
<input type="checkbox"/>	russia*	campaign	34
<input type="checkbox"/>	russia*	witch	32
<input type="checkbox"/>	russia*	obama	28
<input type="checkbox"/>	russia*	just	24
<input type="checkbox"/>	russia*	president	23
<input type="checkbox"/>	russia*	amp	22

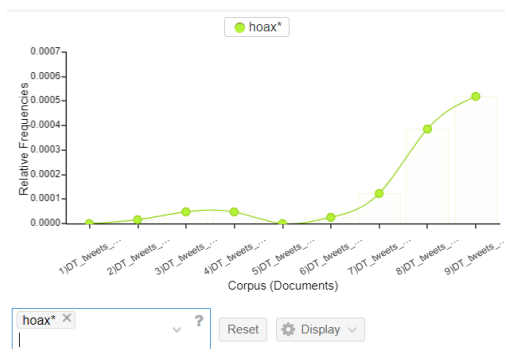
russia* x ? 1,081 context Scale

#2a collocation 'Russia' – Trump

	Term	Collocate	Count (context)
<input type="checkbox"/>	russia*	ukraine	23
<input type="checkbox"/>	russia*	obama	15
<input type="checkbox"/>	russia*	actions	7
<input type="checkbox"/>	russia*	rt	5
<input type="checkbox"/>	russia*	aggression	5
<input type="checkbox"/>	russia*	potus	4
<input type="checkbox"/>	russia*	whlve	3
<input type="checkbox"/>	russia*	united	3
<input type="checkbox"/>	russia*	situation	3
<input type="checkbox"/>	russia*	costs	3

russia* x ? 146 context Scale

#2b collocation 'Russia' – Obama

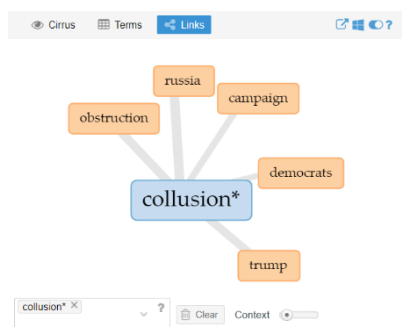


#2c hoax stem – Trump

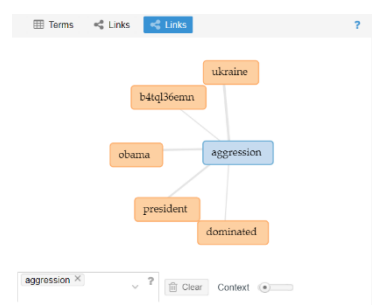
	Term	Collocate	Count (context)
<input type="checkbox"/>	hoax*	witch	12
<input type="checkbox"/>	hoax*	collusion	11
<input type="checkbox"/>	hoax*	russian	8
<input type="checkbox"/>	hoax*	global	7
<input type="checkbox"/>	hoax*	russia	6
<input type="checkbox"/>	hoax*	trump	5
<input type="checkbox"/>	hoax*	story	5
<input type="checkbox"/>	hoax*	started	5
<input type="checkbox"/>	hoax*	scheme	5
<input type="checkbox"/>	hoax*	illicit	5
<input type="checkbox"/>	hoax*	clear	5
<input type="checkbox"/>	hoax*	obstruction	4

hoax* x ? 235 context Scale

#2d hoax collocation - Trump

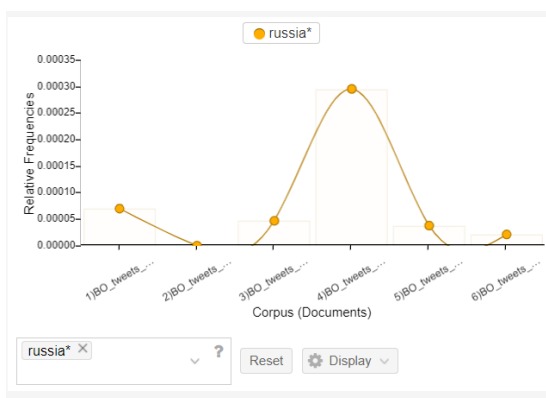


#2e - collusion stem links - Trump

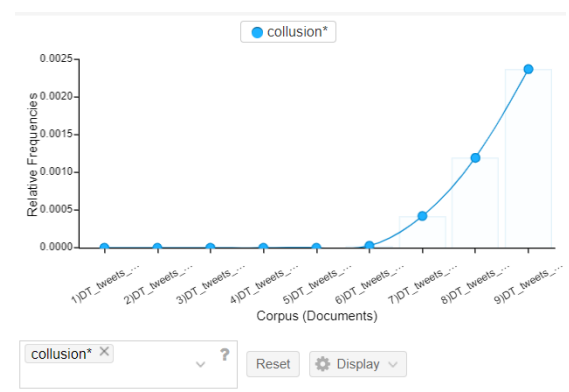


#2f aggression stem links - Obama

In the case of Obama, I can observe a completely different situation. From 2013 to 2015, Obama's public rhetoric increased interest in Russia - undoubtedly due to the annexation of Crimea (2014) and the start of hostilities in eastern Ukraine in territories considered disputed by Russia. (Graph#3a). After Obama's declining interest in Russia in 2016, Trump takes over the baton from him and actively uses Russia - not only as an excuse but also as the basis of US international relations - in his polemics. He kept on debating the collusion topic with a steady and significant increase in mentioning 'collusion' from 2016 to 2019 (#3b).

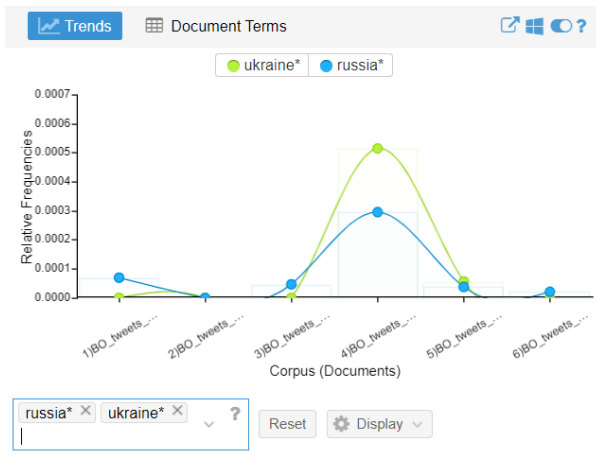


#3a Russia stem - Obama



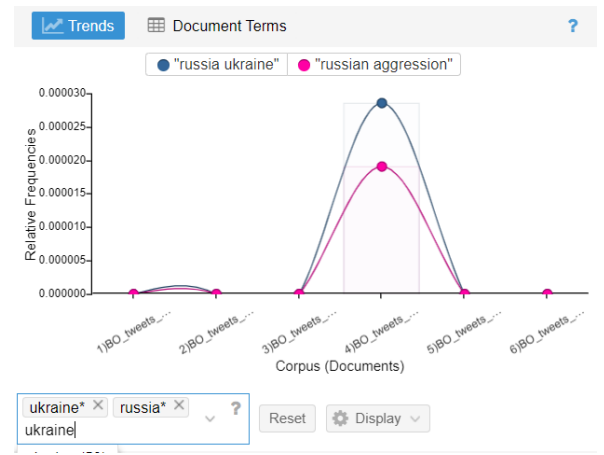
#3b collusion stem – Trump

The other interesting parallel can be distinguished while comparing the mentioning of 'Ukraine' and 'Russia' stems by Obama in 2014 – at the moment of Crimea annexation grew simultaneously. At the same time on the #4b graph, I can observe growing mention of 'russian aggression' and 'Russia – Ukraine' in phrases used by Obama which proves a direct link between the notion of aggression and Obama's coverage of Russia-Ukraine topic, as well as the frequency of mentioning 'Crimea' in the same period (#4c). However, for Trump, the spike in Russia-Ukraine trunk correlation is due to the 2017-2018 collusion scandal and the need for public statements (#4d).



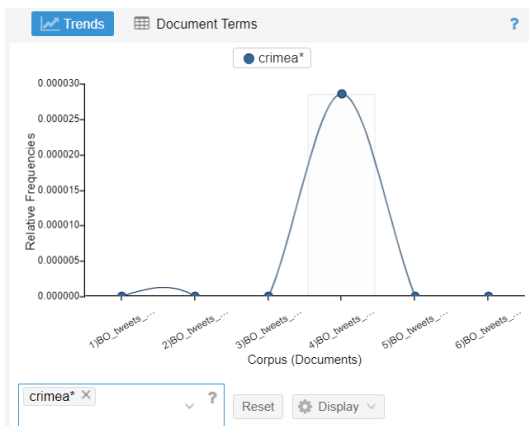
#4a Russia and Ukraine stems' correlation

Obama

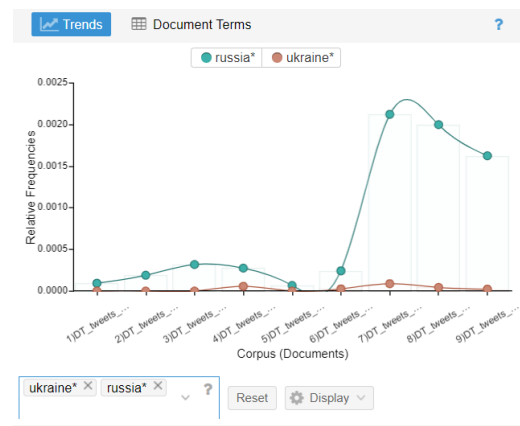


#4b Russia – Ukraine and Russian aggression

phrases correlation - Obama



#4c Crimea stem frequency – Obama

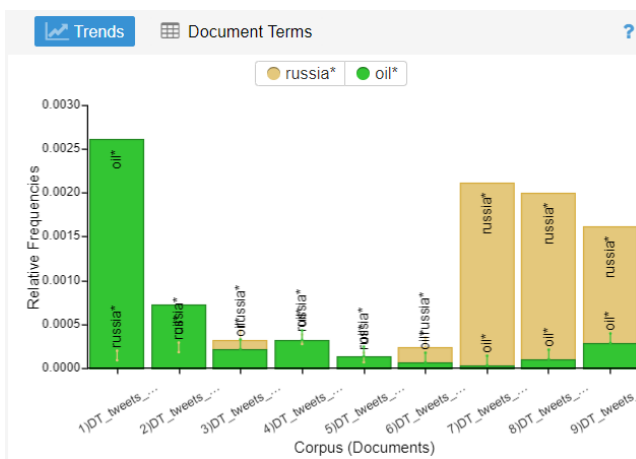


#4d Russia and Ukraine stems' correlation

Trump

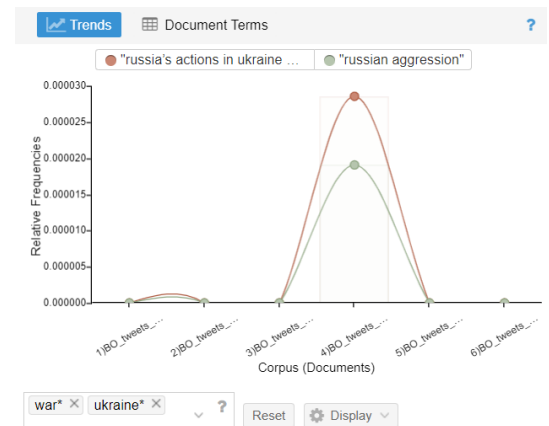
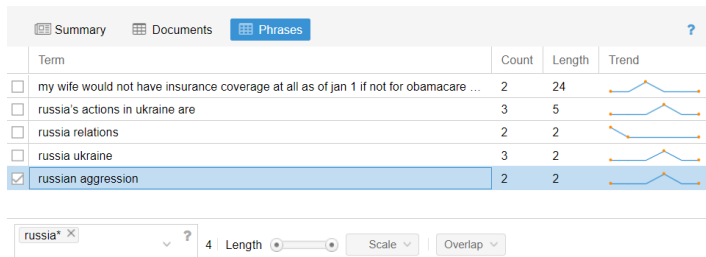
Moving forward to investigating the phrases used by Trump and Obama, I may conclude they interfere and use several other terms to negotiate politically weighted discussions speculating on natural resources US media usually discuss in their social sphere.

For example, Trump states he wants 'military and low oil prices' together with blaming 'Russia was against Trump in 2016' (2014), but the graph makes it clear that interest in oil increases in relation to the fall in references to Russia.



#4f Russia – Oil stems' correlation - Trump

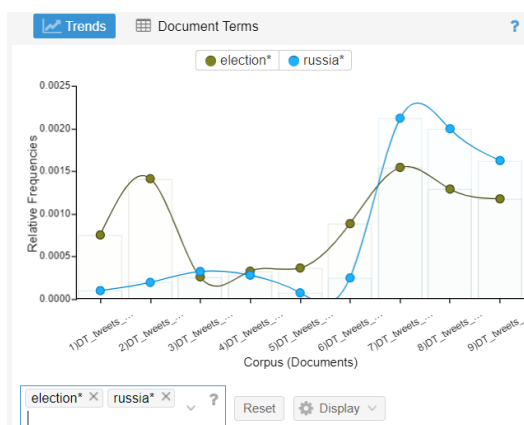
From #5 a, b I can clearly see that Obama's phrases "Russian actions in Ukraine" and "Russian aggression" on Twitter in 2014 confirm the connection between the annexation of Crimea and his stance on the political situation.



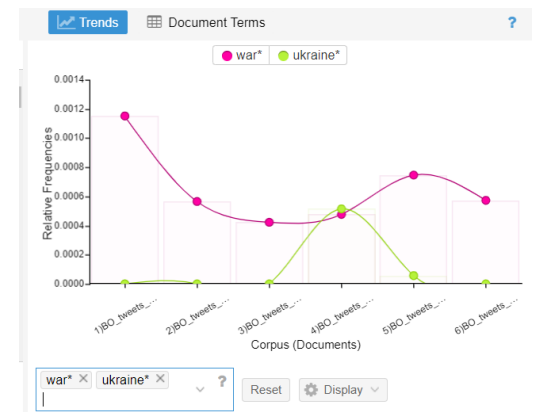
#5a Phrases used for tweeting Russia topic – Obama

#5b Russia tweets' phrases correlation - Obama

Following this logic when analysing the connections between the concept of elections in Trump's tweets, we can conclude that "elections" and "Russia" are directly related and illustrate Trump's need to justify himself in the face of accusations of Russian interference in his campaign (the curves in graph # 6a show a peak from 2016 and run parallel courses), while for Obama the concept of war and Ukraine intersect at the critical peak point in 2016 (#6b) and confirm the pattern shown in graph #5a.



#5a Election and Russia correlation - Trump



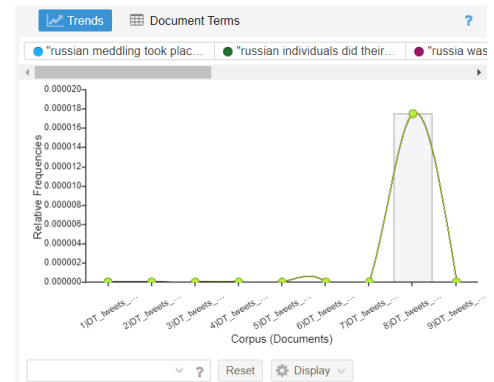
#5b War and Ukraine correlation – Obama

As for Trump, his main interest in Russia is not only to respond to public accusations of conspiracy (2018) but also to the polemic with Democrats and to achieve personal tactical goals

when describing domestic situations in Russian politics, as he demonstrates in his use of phrases like ‘Russia is so ridiculous that FBI lovers were a fraud’, ‘Russian meddling took place during Obama administration’ etc. which demonstrate Trump's attempt to accuse his opponents, the Obama administration and other US government agencies of having links to Russian hackers. (#6a, b)

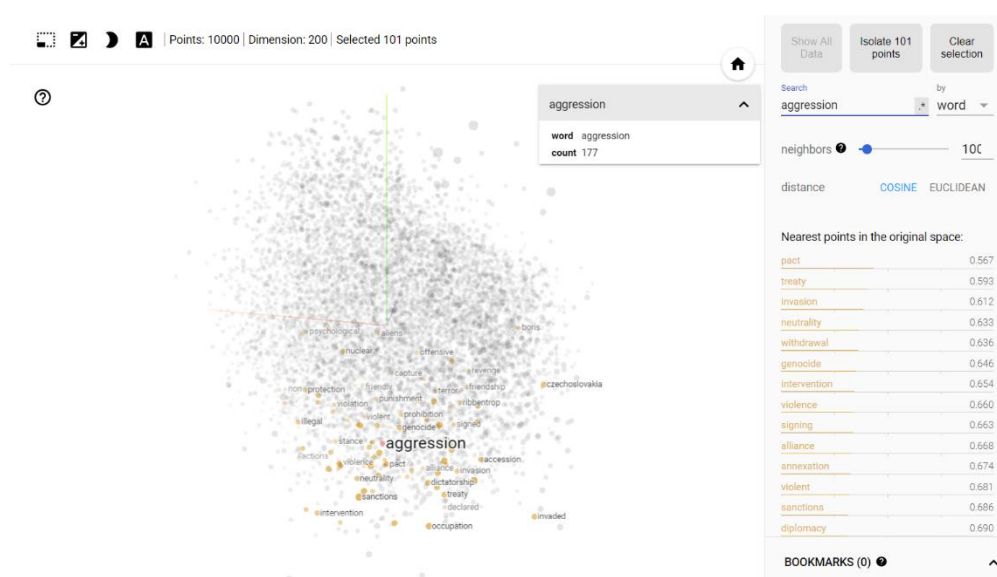
Term	Count	Length	Trend
☐ russian meddling took place during the obama administration right up to januar...	2	37	
☐ russia as i have been saying all along it is all a big hoax by the democrats bas...	2	29	
☐ russia except by the democrats when will this very expensive witch hunt hoax ...	2	23	
☐ russia so ridiculous that the two fbi lovers were a fraud against our nation amp ...	2	23	
☐ russia was a great success except with the real enemy of the people the fake n...	2	19	
☐ russian individuals did their work during the obama years why didn't obama do ...	2	18	

#6a Phrases used for tweeting Russia topic – Trump

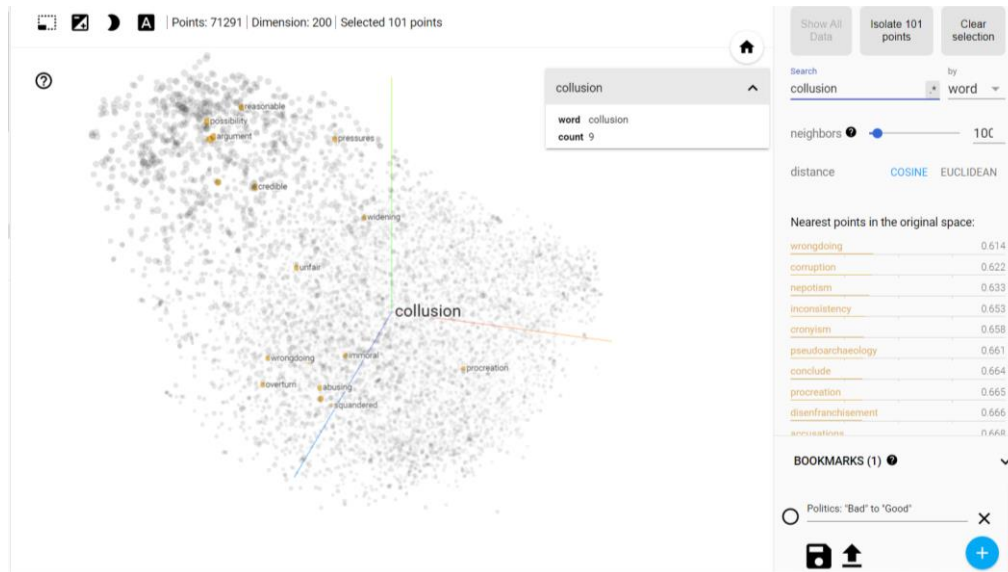


#6b Russia tweets' phrases correlation -Trump,
The majority of tweets are from 2018

But now I need to ascertain the origins of the popular words and for that, I have used TensorFlow. Having analysed a few common words in the tweets of both presidents, I found interesting correlations. First of all, the word ‘aggression’ (used by Obama) is embedded as shown in Graph #7 with ‘intervention’, ‘invasion’, ‘sanctions’, and ‘annexation’, which is obviously predicted, but not necessarily connected with the Russian topic.



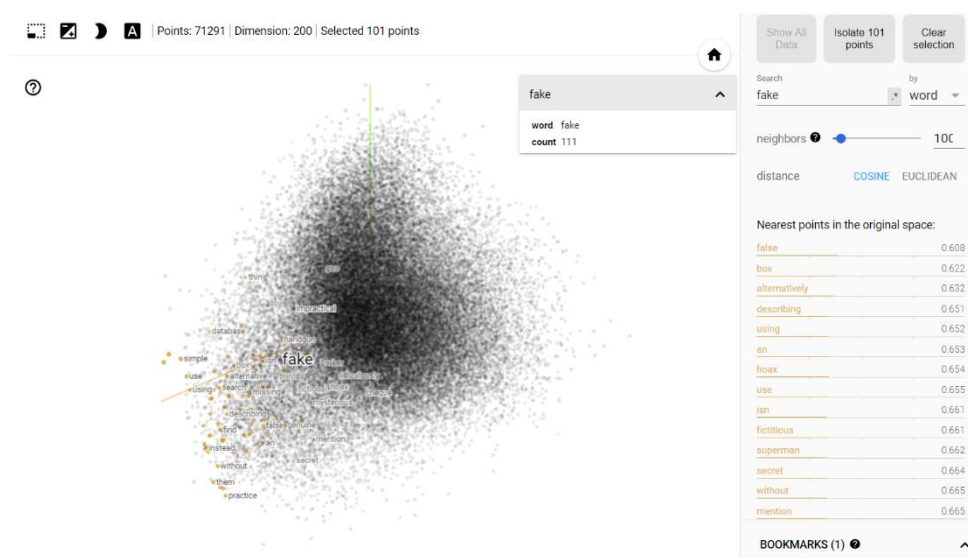
#7 Aggression stem embeddings



#8 Collusion stem embeddings

Following that, I was interested in checking the ‘collusion’ (used by Trump) connection keeping in mind the Voyant links graph which showed its significant connection with ‘Russia’ and ‘obstruction’.

The underlayer of ‘collusion’ turns out to be represented as ‘corruption’, ‘nepotism’/‘cronyism’, ‘accusations’, ‘conflicts’, and ‘inconsistency’ (Graph#8). Trump's negative connotations in discussing a combined topic, therefore, seem to me to be more implicit and strategic than the straightforwardness and clarity of Obama's narrative, if, of course, I would be able to take into account the conventionality of what was said due to a lack of information and context.



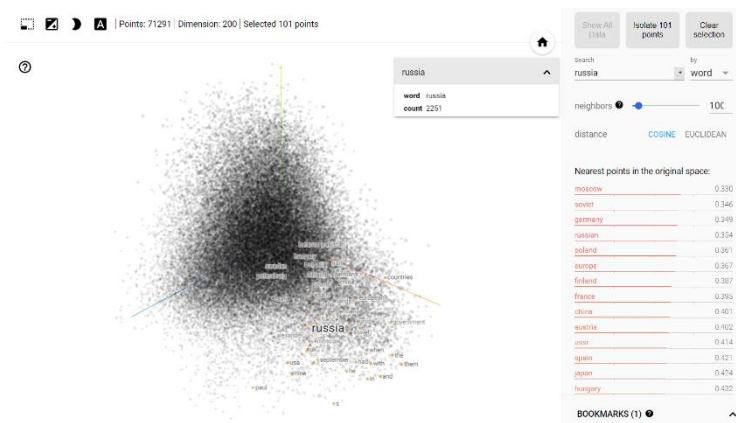
#9 Hoax stem embeddings

Important for Trump's narrative 'Hoax' stem relates to 'Fake' which clarifies and, in some way, harmonizes Trump's lexicon.

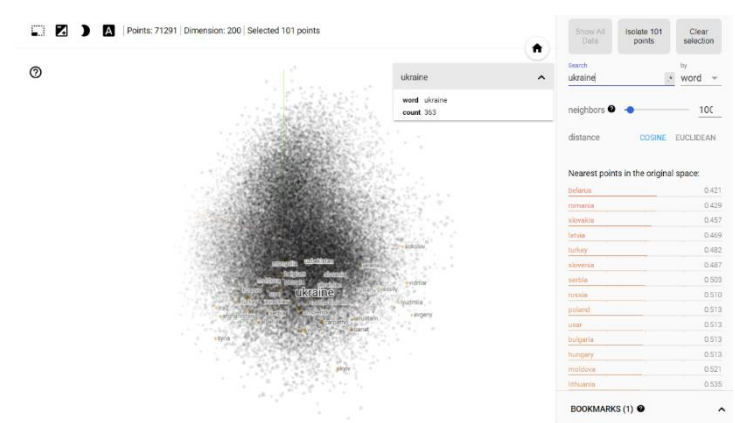
Further on I look into some examples of Obama's tweet phrases; 'Borders cannot be redrawn at a barrel of a gun' (about Russia's invasion in Crimea), 'we are united in our determination to impose costs on Russia for its action' (about sanctions), 'their voices echo call for human dignity that rang out in European streets and squares for generations' (about Ukrainians)

With these undoubtedly bright examples I conclude Obama's lexicon is more poetical and simple, while Trump's tweets are more general, rude, and controversial with his 'Foreign countries, in particular, Russia are mocking US', 'Russia is a good thing, not a bad thing', 'Russia tells U.S. they will not become involved, and then laughs loudly' (about Russian intervention in Ukraine).

An interesting observation was also made when comparing the embeddings of 'Russia' and 'Ukraine'. Whereas Russia's closest connections are the 'Soviet' stem and most of the names of large states, which do not include Ukraine surprisingly, in the case of Ukraine, Russia is close by stem and the other neighbours are mostly Eastern European states. Still, 'Russia' and 'Ukraine' seem to be connected via 'USSR' – the non-existent state both of them used to be a part of.



#10 Russia stem embeddings



#11 Ukraine stem embeddings

Having studied the datasets presented, I conclude that in order to fully understand the focus of Russian coverage it would be necessary to level datasets in time and take into account the different goals of both presidents in using Russian issues in their social media - while Trump sought to balance using Russia to position personal interests and defend against accusations of collusion, Obama is more focused on war topic, Ukraine invasion and foreign policy issues.

The narrative discourse of both is therefore driven by the choice of topic. Obama's vocabulary is dominated by pathetic and inspirational phrases, while Trump has a more negative and provocative discourse. Based on the correlations described above, I can safely argue that the Obama-Trump polemic differs in its criticism. Obama seeks to build consensus by criticizing military aggression, while Trump aims to use any criticism of himself to justify and counter-propaganda against his competitors.

Through this research, it was only possible to understand to a small extent the lexical differences between the two presidents. It appeared that, despite the obvious differences between them, I was still able to confirm my assumptions, even on the basis of a small sample, and define Russia's position in a more detailed manner as a subject for criticism.

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