

Final Individual Project

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1. The pattern in Donald Trump's tweets

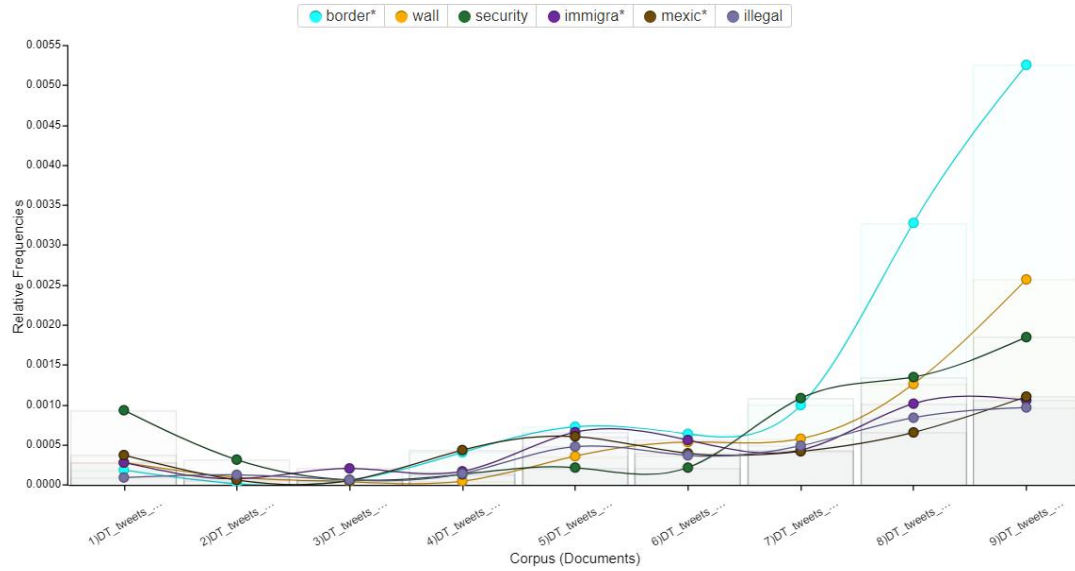


Figure 1. "border", "wall", "security", "immigra", "mexic", and "illegal" in Donald Trump's tweets

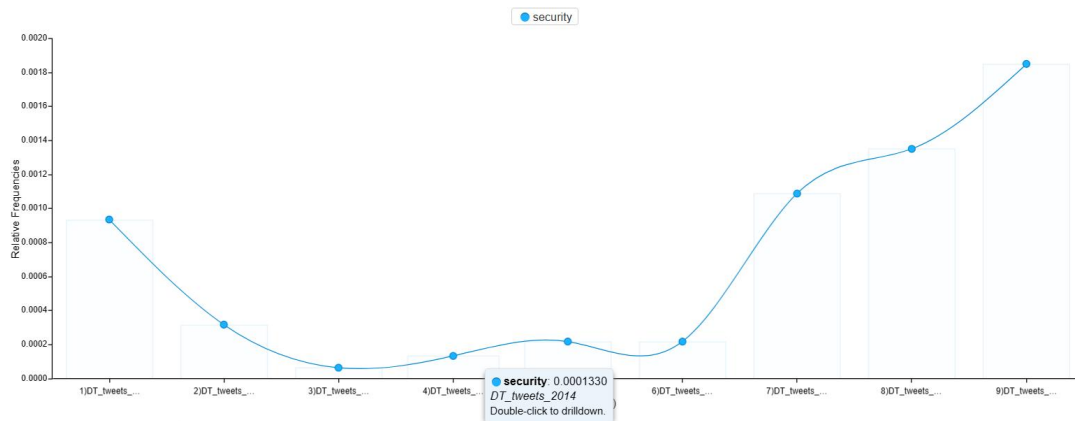


Figure 2. "security" in 2014

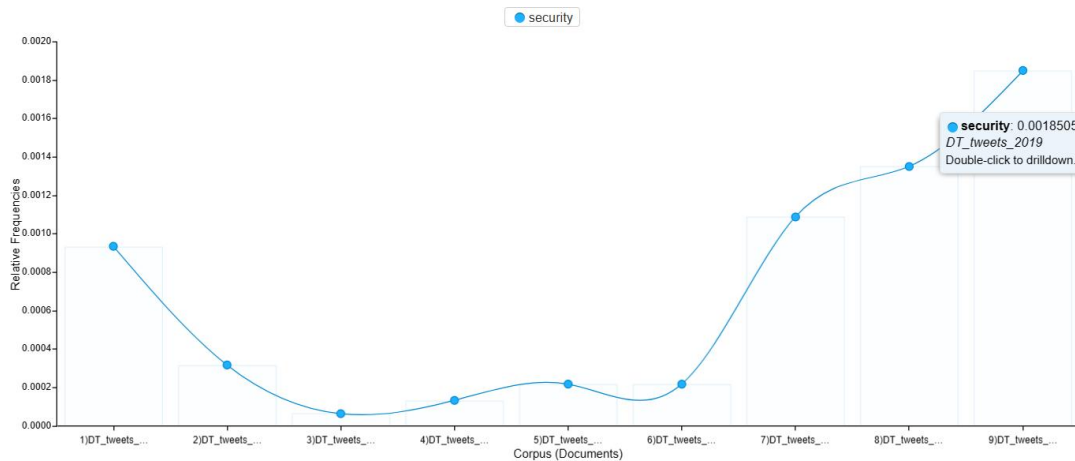


Figure 3. "security" in 2019

As we can see from Figure 1, in all the tweets posted by Donald Trump's tweets between 2011 to 2019, the terms "border", "wall", "security", "immigra" (including "immigrate", "immigration", "immigrant", and "immigrants"), "mexic" (including "Mexico", "Mexican", and "Mexicans"), and "illegal" show a pattern. Except for a small rise in 2015, all these terms go steady from 2011 to 2017, with only 0.0133% for "security" in 2014 (Figure 2) for instance. They all, however, increase significantly from 2017 and still do not show any sign of decline in 2019, for example, "security" reaches 0.18505% (Figure 3), more than thirteen times in 2014.

We can tell from these terms that this pattern exactly reflects one of Trump's immigration policies - the Trump Wall. The pattern shows a rise in 2015 when Trump first mentioned the concept of building a wall on the Mexico-United States border during his presidential campaign. The second increase is from 2017 because this is the time when he was inaugurated and reiterated the Wall. After some executive orders, the United States began to build the Wall in 2018 when the pattern rises dramatically.

	Term	Collocate	Count (context)
<input type="checkbox"/>	wall	border	264
<input type="checkbox"/>	wall	wall	148
<input type="checkbox"/>	wall	security	138
<input type="checkbox"/>	wall	great	133
<input type="checkbox"/>	wall	country	111
<input type="checkbox"/>	wall	democrats	93
<input type="checkbox"/>	wall	people	89
<input type="checkbox"/>	wall	build	89
<input type="checkbox"/>	wall	â	80
<input type="checkbox"/>	wall	just	68
<input type="checkbox"/>	wall	street	65
<input type="checkbox"/>	wall	southern	64
<input type="checkbox"/>	wall	mexico	63
<input type="checkbox"/>	wall	built	62
<input type="checkbox"/>	wall	crime	59
<input type="checkbox"/>	wall	want	55
<input type="checkbox"/>	wall	need	54
<input type="checkbox"/>	wall	big	54

wall ? 3,426 context Scale

Figure 4. collocates of "wall" in Donald Trump's tweets

	Term	Collocate	Count (context)
<input type="checkbox"/>	immigra*	great	117
<input type="checkbox"/>	immigra*	border	117
<input type="checkbox"/>	immigra*	people	85
<input type="checkbox"/>	immigra*	immigration	82
<input type="checkbox"/>	immigra*	country	82
<input type="checkbox"/>	immigra*	laws	80
<input type="checkbox"/>	immigra*	democrats	68
<input type="checkbox"/>	immigra*	america	59
<input type="checkbox"/>	immigra*	â	58
<input type="checkbox"/>	immigra*	president	51
<input type="checkbox"/>	immigra*	weak	49
<input type="checkbox"/>	immigra*	just	48
<input type="checkbox"/>	immigra*	security	47
<input type="checkbox"/>	immigra*	want	46
<input type="checkbox"/>	immigra*	wall	46
<input type="checkbox"/>	immigra*	need	46
<input type="checkbox"/>	immigra*	illegal	46
<input type="checkbox"/>	immigra*	stoo	45

immigra* ? 3,814 context Scale

Figure 5. collocates of "immigra" in Donald Trump's tweets

The Trump Wall and the pattern in Figure 1 indicate that Donald Trump strongly believes that a wall on the Mexico-United States border could largely decrease illegal immigration from Mexico, to ensure the security of the United States. This is why the six terms - “border”, “wall”, “security”, “immigra”, “mexic”, and “illegal” - are all closely connected. Figure 4 shows that in 3426 contexts which contain “wall”, the collocate of “border” is 264, “security” is 138, and “mexico” is 63, while in Figure5, for 3377 contexts of “immigra”, the collocate of “border” is 117, “security” is 47, and “illegal” is 46.

Document	Left	Term	Right
DT_two...	been caught crossing the Mexico	bo...	. Build a wall! China has
DT_two...	Donald Trump was right on Ebola! http://t.co/2rS9VRS6MX" The Donald is always right!" Any American who fights with ISIS should have their passport revoked. Take them to Gitmo for interrogation. The fight against ISIS starts at our border. "At least" 10 ISIS have been caught crossing the Mexico border. Build a wall! China has just overtaken us as the world's largest economy. We are busy wasting \$'s while China builds airports & skyscrapers. Via @DMRegister BY @JenniferJJacobs: @SteveKingIA ramps up with first TV ad Trump event! http://t.co/eMysGiPuaT My @6abc int. with @Jim_Gardner on Atlantic		
DT_two...	national security starts at the	bo...	. Do you think ISIS &
DT_two...	new ad "Secure Our	bo...	https://t.co/KhnHd5i13r Michelle Nunn
DT_two...	Arabia was on Syria's	bo...	http://t.co/s4Al85JHSe Wrong. These

Figure 6. a tweet of “border” 1 in Donald Trump’s tweets

Document	Left	Term	Right
t.co/BFvXVb453v We have millions in our country unemployed yet we are wasting millions arming Syrian "rebels" What is wrong with Washington?! Obama can attend a fundraiser every day but can't be bothered to get briefed on national security. Commander-in-Chief?! Our national security starts at the border. Do you think ISIS & al-Qaeda are just in the Middle East? Rated #1 Resort in Europe by @CNTraveler @Trump. Ireland offers breathtaking golf & the 5 Star Lodge at Doonbeg http://t.co/uwxhlcEcjn @RWDF1 @realDonaldTrump They are planning on building wind turbines near Turnberry Golf course on Knoweside			
DT_two...	new ad "Secure Our	bo...	https://t.co/KhnHd5i13r Michelle Nunn
DT_two...	Arabia was on Syria's	bo...	http://t.co/s4Al85JHSe Wrong. These
DT_two...	on this one. SECURE THE	bo...	I BUILD A WALL! "The

Figure 7. a tweet of “border” 2 in Donald Trump’s tweets

Let us take a look at some of Trump’s tweets.

The fight against ISIS starts at our border, “At least” 10 ISIS have been caught crossing the Mexico border. Build a wall! Figure 6

Three terms are there in this tweet, showing his strong attitude toward building the Trump Wall.

Our national security starts at the border. Do you think ISIS, al-Qaeda are in the Middle East? Figure 7

Here Trump connects “border” and “security”, a good illustration of the pattern.

3. The terms in ‘The Illustrated Word2Vec’

The pattern in Figure 1 is unique to Donald Trump since no one else would always use these terms to express his or her ideas. The Illustrated Word2Vec could prove this point.

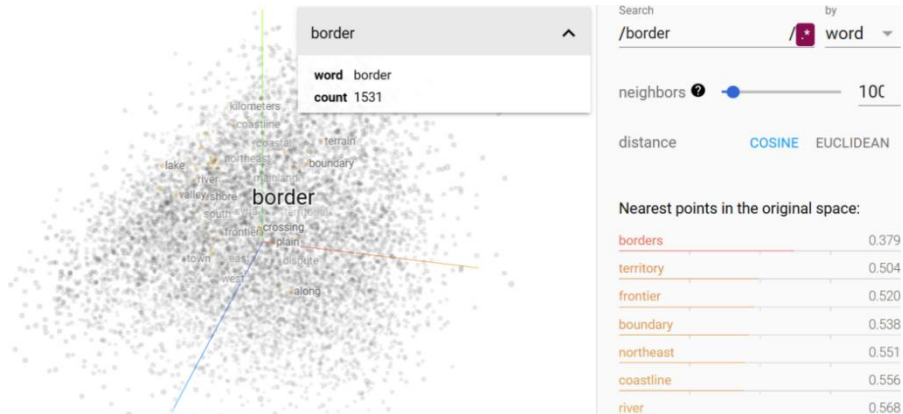


Figure 8. “border” in ‘The Illustrated Word2Vec’

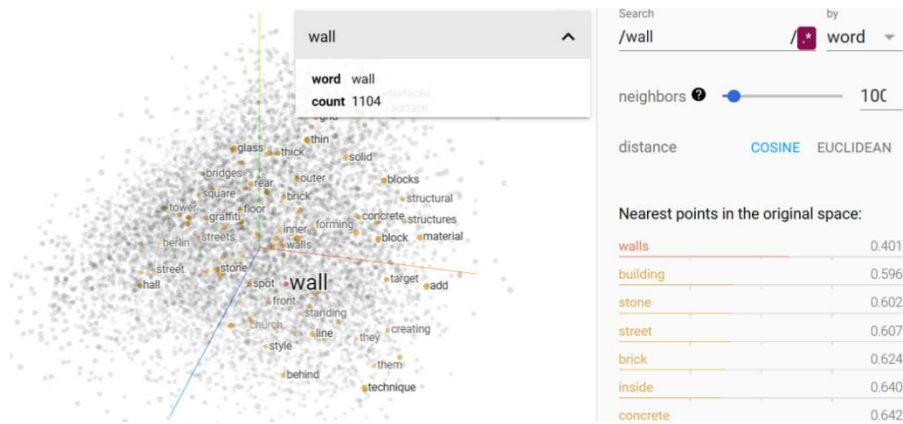


Figure 9. “wall” in ‘The Illustrated Word2Vec’

Figure 8 shows the relationship between “border” and its nearest points - “borders”, “territory”, “frontier”, “boundary”, etc. - none of them is the one we are looking for. The same goes for “wall”, which is near “walls”, “buildings”, “stone”, “street”, etc. without the words in the pattern,

4. The comparison with Barack Obama’s tweets

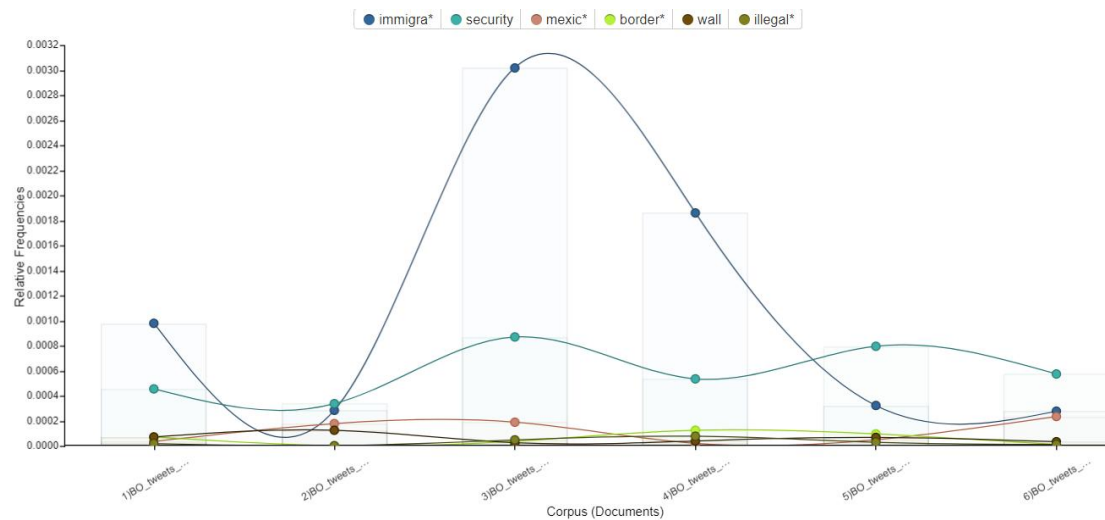


Figure 10. “border”, “wall”, “security”, “immigra”, “mexic”, and “illegal” in Barack Obama’s tweets

However, when we search for these terms in Barack Obama’s tweets between 2011 to 2016, there is no pattern at all. Figure 10 shows that the word “mexic”, “border”, “wall”, and “illegal” are mentioned far less than Trump, all below 0.02%. Even though “security” is much higher and goes ups and down in this period, it did not in line with other terms. The only one that shows a change is “immigra”, going down from 2011 to 2012, a sharp increase at the end of 2011, reaching the peak at the start of 2013, and declining dramatically to 0.02% as other terms. The rise in “immigra” is because Barack Obama introduced an immigration reform in 2013 - Border Security, Economic Opportunity, and Immigration Modernization Act of 2013, which leads to a small rise in “security” in 2013, though we could not call it a pattern.

	Term	Collocate	Count (context)
<input type="checkbox"/>	immigra*	immigration	388
<input type="checkbox"/>	immigra*	immigrationaction	229
<input type="checkbox"/>	immigra*	reform	218
<input type="checkbox"/>	immigra*	immigrants	185
<input type="checkbox"/>	immigra*	immigrationreform	169
<input type="checkbox"/>	immigra*	watch	155
<input type="checkbox"/>	immigra*	broken	140
<input type="checkbox"/>	immigra*	time	138
<input type="checkbox"/>	immigra*	fact	118
<input type="checkbox"/>	immigra*	fix	116
<input type="checkbox"/>	immigra*	economy	113
<input type="checkbox"/>	immigra*	potus	111
<input type="checkbox"/>	immigra*	nation	102
<input type="checkbox"/>	immigra*	fixing	100
<input type="checkbox"/>	immigra*	immigrationnation	89
<input type="checkbox"/>	immigra*	live	88

immigra* x 3,319 context Scale

Figure 11. collocates of “immigra” in Barack Obama’s tweets

The difference between Donald Trump’s tweets and Barack Obama’s implies the two former presidents have a huge difference in terms of immigration. While Trump shows a strong attitude to immigrants, Mexicans in particular, Obama seems to care more about the economy and PUTUS (Figure 11).

5. Datasets

The two datasets here to be analysed are: 1) all tweets by Barack Obama posted between 2011-2016 and 2) all tweets posted by Donald Trump between 2011-2019. However, these datasets may skew my results since they also include some tweets posted by others who mentioned Barack Obama or Donald Trump.

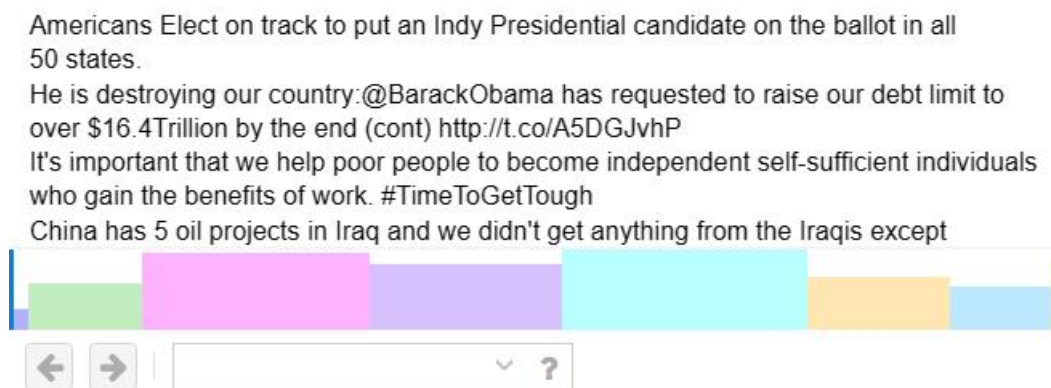


Figure 12. some tweets from Barack Obama’s tweets

Let us take a look at one tweet from figure 12:

He is destroying our country:@BarackObama has requested to raise our debt limit to over \$16.4Trillion by the end (cont)

As we can see this tweet is not from Barack Obama’s tweets.

6. The drawback of Voyant

Since Voyant is an application for performing text analysis, it may lead to some misunderstandings now and then. As we can see from Figure 1, “border” is an outlier to some extent - a sharp

increase from 2017, multiple times of others. This is not because Trump is more in favour of the word “border”, or the word is more common and important in this situation, but it is polysemy. In the pattern, “border” means the line that divides two countries or areas. Even though this meaning is the most common one, it means something else too - for instance, the strip around the edge of something such as a picture. However, when we use Voyant to analysis texts, it is unable to tell the difference between different contexts and find the right one for our research. It is impossible to check every meaning of a word, especially when the corpus is quite big. Maybe this is the thing that we still need to work on.