

I designed a script to crawl **YouTube videos** whose titles contained “**Donald Trump**” over the past year and collected **the comments** under those videos. The comments were exported into a CSV file to serve as my research corpus. I first conducted data preprocessing in **R**, including converting all text to lowercase, removing URLs, replacing non-alphabetic characters with whitespace, and compressing multiple spaces. **The final processed Trump comment dataset contains 436,138 comments**. Key variables identifying each comment include *comment\_id*, *comment\_text*, *created\_datetime*, *author*, and more.

## 0. Research Objectives:

My research aims to explore the following questions:

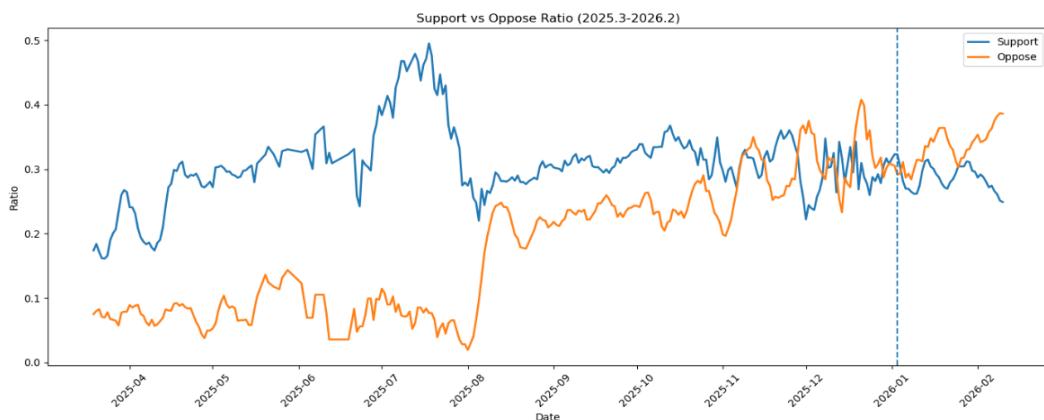
1. How many comments are supportive, neutral, or opposing? What are the daily support and opposition rates? How polarized is the comment section?
2. Word cloud comparison between Trump supporters and opponents.
3. A “comment wall” that demonstrates the most extreme supporters and opponents.
4. Specific emotional distribution (anger, fear, joy, trust).
5. The most frequently used emojis in Trump’s comment section.
6. The most frequently mentioned political figures and their clustering patterns.

## 1. Support and Opposition Rates

Stance classification was implemented using sentiment scoring (VADER compound score thresholding), followed by daily aggregation. Out of 436,138 comments, neutral comments were the largest group (160,117), followed by opposing comments (156,170), while supportive comments were the smallest group (119,851)

```
stance
neutral    160117
oppose     156170
support    119851
Name: count, dtype: int64
```

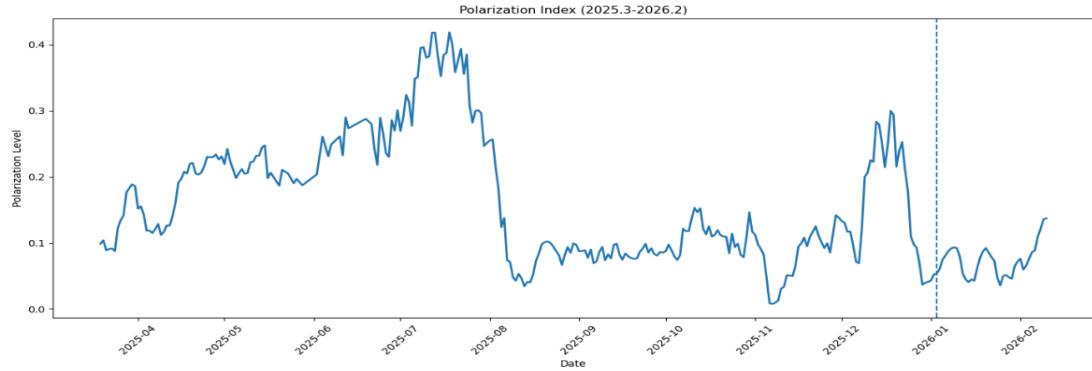
However, when I calculated **daily support and opposition ratios**, I was surprised to find that on most days throughout the year, Trump’s support rate was actually higher than the opposition rate. Even after **the January 3rd public arrest of Venezuelan President Nicolás Maduro**, the daily support rate remained slightly higher than opposition.



My hypothesis is that although opposition comments dominate in total count, they may have been concentrated during a few intense political events, leading to burst-like spikes rather than steady dominance. To quantify this, I computed a **Polarization Index**, defined as:

$|Support\ Ratio - Oppose\ Ratio|$

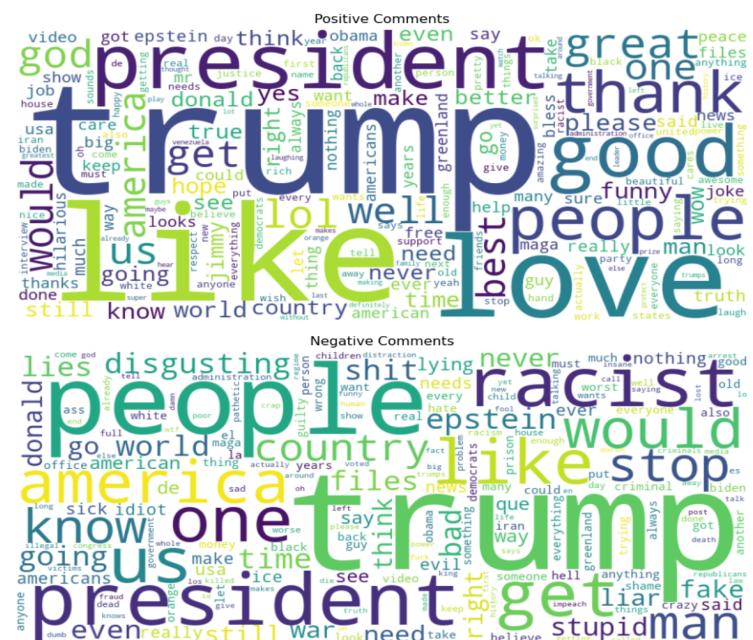
This measures how one-sided the comment section is, regardless of direction. As expected, polarization fluctuated substantially across the year.



## 2. Word Cloud Analysis

After stopword removal and tokenization (R tidytext), TF-IDF weighting was used to emphasize discriminative vocabulary within each stance group rather than simple raw frequency. Based on this, I generated separate word clouds for supporters and opponents to visualize the most frequent terms in each group .

The lexical tendencies show a clear aesthetic of polarization. One particularly striking term appearing in the opposition word cloud is “**racist**”, likely linked to **Trump’s policies toward foreign students and businesses**.



### 3. Comment Wall (Extreme Supporters vs Extreme Opponents)

From comments explicitly mentioning “Trump,” I ranked the top 10 highest and lowest sentiment scores to construct a “comment wall.” The supporters’ unfiltered praise and the opponents’ equally unfiltered criticism beautifully demonstrate the diversity—and chaos—of the internet.

#### Supporters Wall:

== 🔥 Most Positive Comments ==

Sentiment: 0.998

HEBREWS 1:9 You have loved righteousness and hated wickedness; REVELATION 22:12 “ Look, I am coming soon! 13 I am the Alpha and the Omega, the First and the Last, the Beginning and the End. How so an awesome and so a the powerful our the truth the Greatest the King God is this night specially! Our the Most High the Holy God own made so a wonderful the Holy Ghost the Spirit of so a beautiful and so a big the Holy Ghost the Crosses on the carpet and on the wall sides and on the ceiling so a...

Sentiment: 0.9975

Tom Llamas is a smart, fair, great reporter. I love the respect he shows to the President. Which is a much earned respect. Tom asks President Trump the questions we Americans want asked! Thanks Tom. Great job in a day when all the Dems and fake news just say horrible things about President Trump. Only because he's President Trump. Thanks for asking about the \$2000 for all Americans. It makes sense for people making under \$200,000. Not everyone. I'm glad about the \$1776. But of course we hope the President follows through and helps Americans with all the expensive prices...

Sentiment: 0.9974

Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF, Trump is a PDF, his best friend was king PDF!

Sentiment: 0.9972

Thank you holy Spirit and the most high God for blessing me with the best in the world. The honest way God will do it is t he best and for blessing me with the best daughter in the world, the best grandkids in the world and the best girlfriend t hat's ever stepped foot in my world. I love you all. I miss y'all. I love you so much Maddie. Thank you holy Spirit. Let's do this. I want to marry you baby girl. At least true. It's damn true and that's the bottom line cuz Ricky Joe said so an d...

Sentiment: 0.997

My dear President Trump, I don't know if you'll see this or not, but this has to be made so clear to you. The way you get to heaven is putting your faith and trust in Jesus Christ alone, not on your money, not on man, not on your intelligence a nd definitely NOT ON PAULA WHITE!. There is nothing you can do to earn your way to heaven, sir. Just know, love, trust, ge t on your knees, and believe in your Lord and savior Jesus Christ! I pray for you every day that someone will get this though to you...

Sentiment: 0.9967

That's how things GET DONE,WITH THE CORRECT DECISION MAKING BY THE GREATEST PRESIDENT EVER ELECTED IN OUR COUNTRY,FREEDOM NOT ONLY IN OUR CONTINENT BUT AROUND THE WORLD,BRING THEM ALL TO JUSTICE,THANK YOU PRESIDENT DONALD J TRUMP AND ALL THE CABINET MEMBERS THAT ARE FIGHTING FOR FREEDOM AND EXTERMINATE DICTATORSHIPS AROUND THE WORLD, PEOPLE EVERYWHERE DESERVE TO BE FREE AND ENJOY DEMOCRACY LIKE THE ONE WE ENJOY HERE IN OUR COUNTRY,THE BEST COUNTRY IN THE WORLD THE UNITED STATES OF AMERICA,THANK YOU TO THE GREATEST ARMED FORCES IN THE WORLD,OUR GREAT MAN AND WOMEN IN UNIFORM,GOD BLESS AMERICA.🇺🇸🙏🙏

Sentiment: 0.9955

Thank you so much president trump's for the love of faith for your love and support you het shavo droga smagling korapsi on gira I am happy joy ful challenges in you lord god I am happy joy god is good all the time father God bless you presid ent trump's and to all militry bless you safety protection guide you father God bless you for your love have mercy on us

Sentiment: 0.9953

Well, Mary Trump, guess what? Trump may be stupid, but he's done exactly what he said he would do. The only thing about Trump that seems to be true is that he follows through with what he says he's going to do. Bernie Sanders is right. You've got to credit Trump with following through with what he said he'd do. He vowed he would take away people's SNAP benefits and he did. He vowed he would take medicare costs and increase them and he did. Project 2025. He vowed he would build concentration camps and incarcerate people. People laughed at...

Sentiment: 0.9944

Hahaha Epstein is in the trump files!

Sentiment: 0.9943

Speak for yourself – Trump's 2nd term is NOT worse than I thought... in fact, it's right on target! Hence why I was stuck in a state of terror for months last year after the election. And I believe (with mounting supportive evidence) he didn't actually win the election fairly but altered the vote count via Elon Musk and cronies' software manipulations. I think this will someday be revealed, but always too late. Not sure how it'll all pan out. I'm trying to figure out how I and the people closest to me can live through this American fascism. We're...

### **Opponents Wall:**

==== ⚡ Most Negative Comments ====

Sentiment: -1.0

Sentiment: -0.9998

Sentiment: -0.9996

Sentiment: -0.9994

Sentiment: -0.9991

Sentiment: -0.9987

Sentiment: -0.9987

Sentiment: -0.9987  
We the people same not pleased what you did molested abuser sicker as lied Jeffery die I was right alongggg so where my moneyyyyyy I wait get me now no delay no hesitate I neeeeeedddd why no job got me wrecked and bad injured remmy is shoot I laugghged under table vs in wrecked injury who saved fight fight fight remmy that it on me not him sissy little cut his ear mine got 50 sewed on left calf oops other one right knee got me bbbbrrrrroooookkkkeeeeennn bones and...

Sentiment: -0.9983

TRUMP has sent all these ice into the BLUE STATES for them to cause so much trouble against the American people just to get them to FIGHT FIGHT FIGHT BACK against ice but it is NOT WORKING. I guess not he is trying to ramp up the trouble by shooting people now to try that much harder to get everyone to go bat crap stupid BUT AGAIN IT IS NOT WORKING. TRUMP IS TRYING HIS BEST TO BE ABLE TO HAVE A FAKE REASON JUST SO HE CAN CALL IN THE MILITARY. This is what it is all about. TRUMP...

Sentiment: -0.998

Trump proves over & over & over he is a raving lunatic! America has just reached a pivotal crisis point in its 250+ years of history. WHY? The whole world is watching as America is rapidly collapsing MORALLY, POLITICALLY, LEGALLY & ECONOMICALLY. WHY? In less than 10 months Trump becomes the first American President to pardon 2,000+ CONVICTED criminals including: brutal murderers, rapists, pedophiles, child molesters, child traffickers, drug lords, fraudsters, tax cheats, corrupt politicians, and PORNGRAPHERS. The whole world is watching as the Trump Crime Family & Trump Crime Cartel are thriving in the WhiteHouse. Selling watches, shoes, coins,...

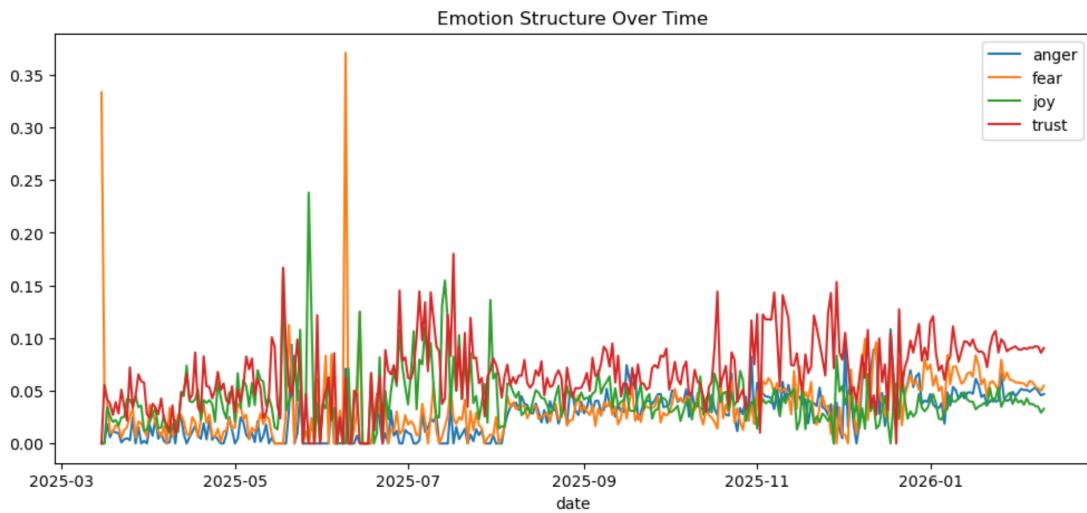
Sentiment: -0.9978

America has just reached a pivotal crisis point in its 250+ years of history. WHY? The whole world is watching as America is rapidly collapsing MORALLY, POLITICALLY, LEGALLY & ECONOMICALLY. WHY? In less than 12 months Trump becomes the first American President to pardon 2,000+ CONVICTED criminals including: brutal murderers, rapists, pedophiles, child molesters, child traffickers, drug lords, fraudsters, tax cheats, corrupt politicians, and PORNOGRAPHERS. The whole world is watching as the Trump Crime Family & Trump Crime Cartel are thriving in the WhiteHouse. Selling watches, shoes, coins, bitcoins, phones, cars, CHINESE MADE Bibles, OIL rights and other Trump "trinkets..."

## 4. Specific Emotional Analysis

Beyond simple support vs opposition, I measured the proportions of four discrete emotions: anger, fear, joy, and trust. Emotion classification was performed using DistilRoBERT, a transformer-based emotion model.

On most days, **trust was the dominant emotion**, which may partially explain the stability of Trump's political trajectory. However, in **March and July 2025**, **fear spiked sharply**—likely linked to controversial policy moves and unpredictable rhetoric.



## 5. Emoji Analysis

Emoji extraction was performed via Unicode pattern matching. Frequency counts were compared across stance groups to assess symbolic emotional signaling beyond lexical sentiment. **The top 20 emojis** in Trump's comment section were:

(😂, 71952), (心脏病, 18047), (🤣, 11311), (😅, 10019), (🤔, 6845)  
(🇺🇸, 6819), (💙, 5768), (😢, 5752), (🎉, 5640), (💩, 4604)  
(🙏, 4349), (😊, 3679), (🤮, 3584), (👍, 3577), (👏, 3545)  
(🤬, 2941), (😡, 2537), (🤔, 2522), (心脏病, 2427), (😳, 2356)

Interestingly, four out of the top five emojis carry a strong tone of **sarcasm** or **mockery**. This made me reconsider my earlier conclusion that support rates exceed opposition rates on most days. Could it be that what appears as “support” is, in fact, sarcasm? This question deserves further investigation.

## 6. Political Figure Mentions and Clustering

Using Named Entity Recognition (spaCy), I extracted the top 20 most frequently mentioned “PERSON” entities. Initial results included noise due to tokenization limitations:

[‘don’, ‘doesn’, ‘donald trump’, ‘putin’, ‘god’, ‘clinton’, ‘donald’, ‘maga’, ‘jesus’, ‘jimmy’, ‘bill clinton’, ‘joe biden’, ‘trumps’, ‘obama’, ‘tim scott’, ‘jimmy kimmel’, ‘trump doesn’, ‘trump s’, ‘david’, ‘eu’]

After normalization and filtering, seven major political figures remained:

**[‘Barack Obama’, ‘Bill Clinton’, ‘Donald Trump’, ‘Jimmy Kimmel’, ‘Joe Biden’, ‘Tim Scott’, ‘Vladimir Putin’]**

A weighted undirected graph was built using NetworkX, where edges represent co-mentions within the same comment. Communities were detected using the Greedy Modularity Optimization algorithm.

Final clustering result:

**Community 1:**

**[‘Barack Obama’]**

**Community 2:**

**[‘Bill Clinton’, ‘Joe Biden’]**

**Community 3:**

**[‘Donald Trump’, ‘Tim Scott’, ‘Vladimir Putin’]**

**Community 4:**

**[‘Jimmy Kimmel’]**

The most amusing outcome is that Putin and Trump ended up in the same cluster. Besides frequent co-mention, it may also reflect the internet’s enduring fascination with shipping them as an unlikely political duo.