



# **Uncovering Trolls and Political Influence in the Adani Debate on Twitter**

SOCIAL MEDIA ANALYTICS (04755)

# Our Team



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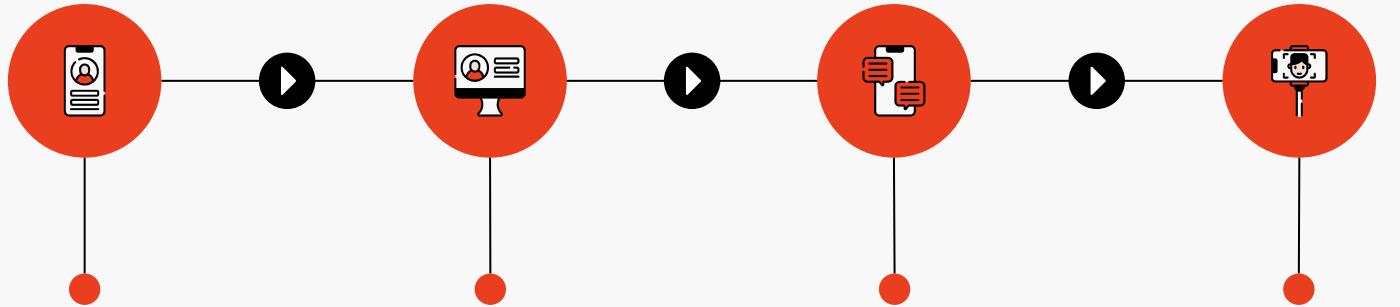


Amritangshu M



April K

# Overview



## Intro

Project Ideas,  
Initial Questions

## Data & EDA

Graphs, data,  
visualization

## Network Data Analysis

Network Graphs

## Conclusion

Results and  
investigation  
conclusions



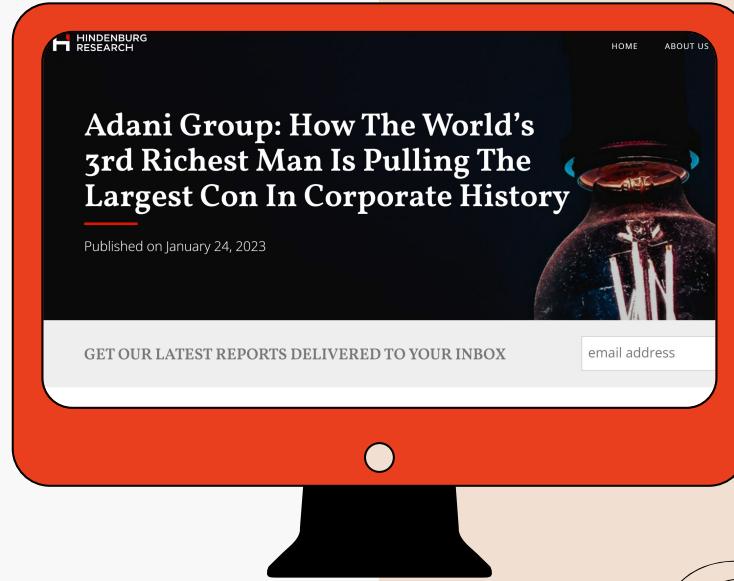
01

# Intro

What's the deal with Adani and Hindenburg?

# What happened?

On January 24th, Hindenburg Research released a 400 page document accusing Adani Group of stock market manipulation and fraud.



# Picking Sides



## Adani

Richest man in India and  
CEO of Adani Group



## Hindenburg

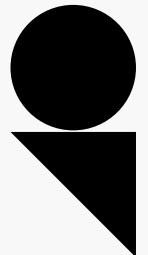
Investment research firm,  
looking for corruption or  
fraud in the business  
world



# 02

# Data & EDA

Describing the data and visualizations





# 30,000

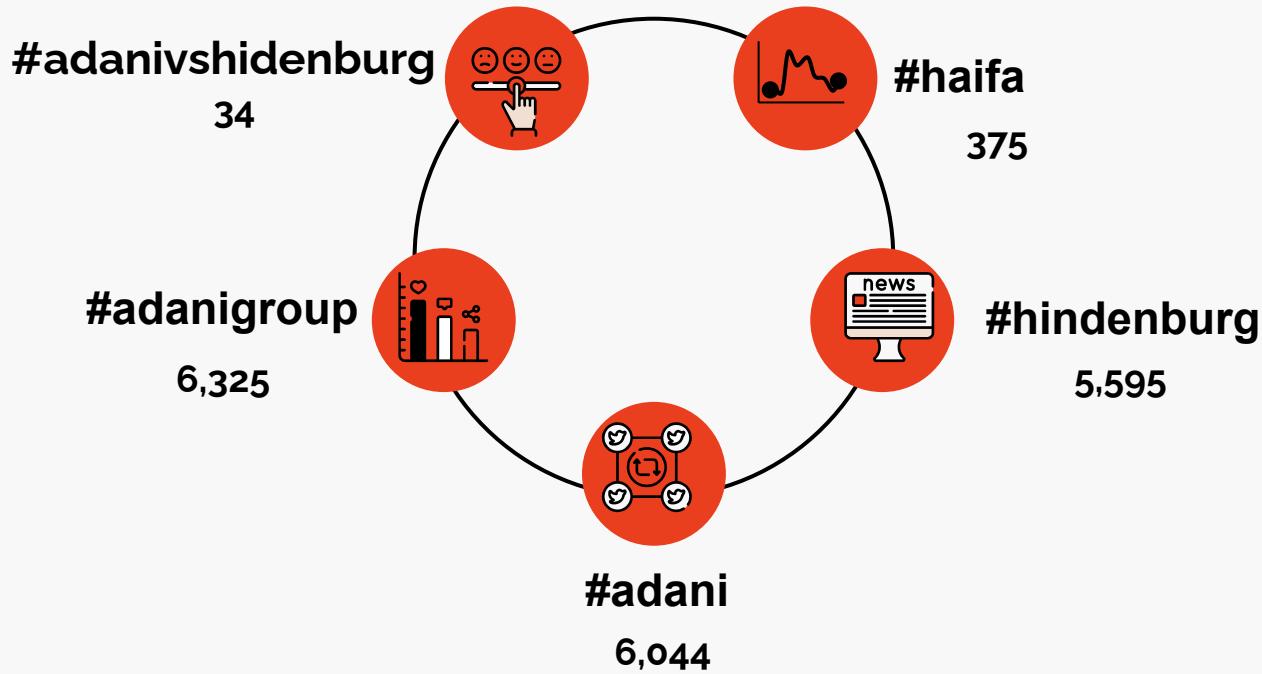
Tweets from Twitter using popular hashtags for the Adani Group v. Hindenburg Research debacle.

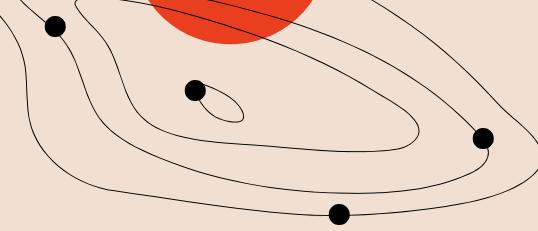
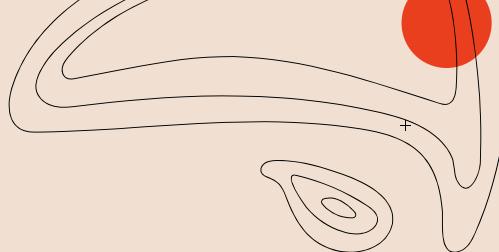
# Top Tweeter Demographics



Location	# of Tweets
India	1021
New Delhi	391
Mumbai	346
Bengaluru	145
Hyderabad	133
Chennai	111

# Important Hashtags

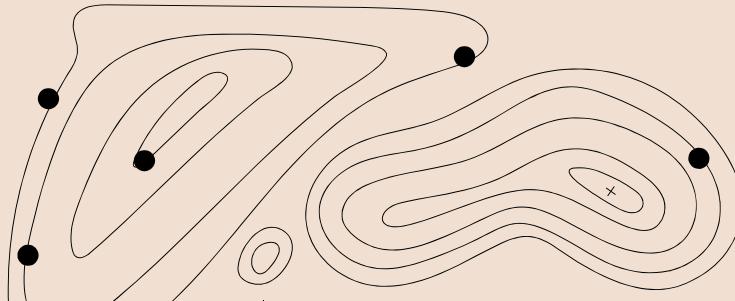


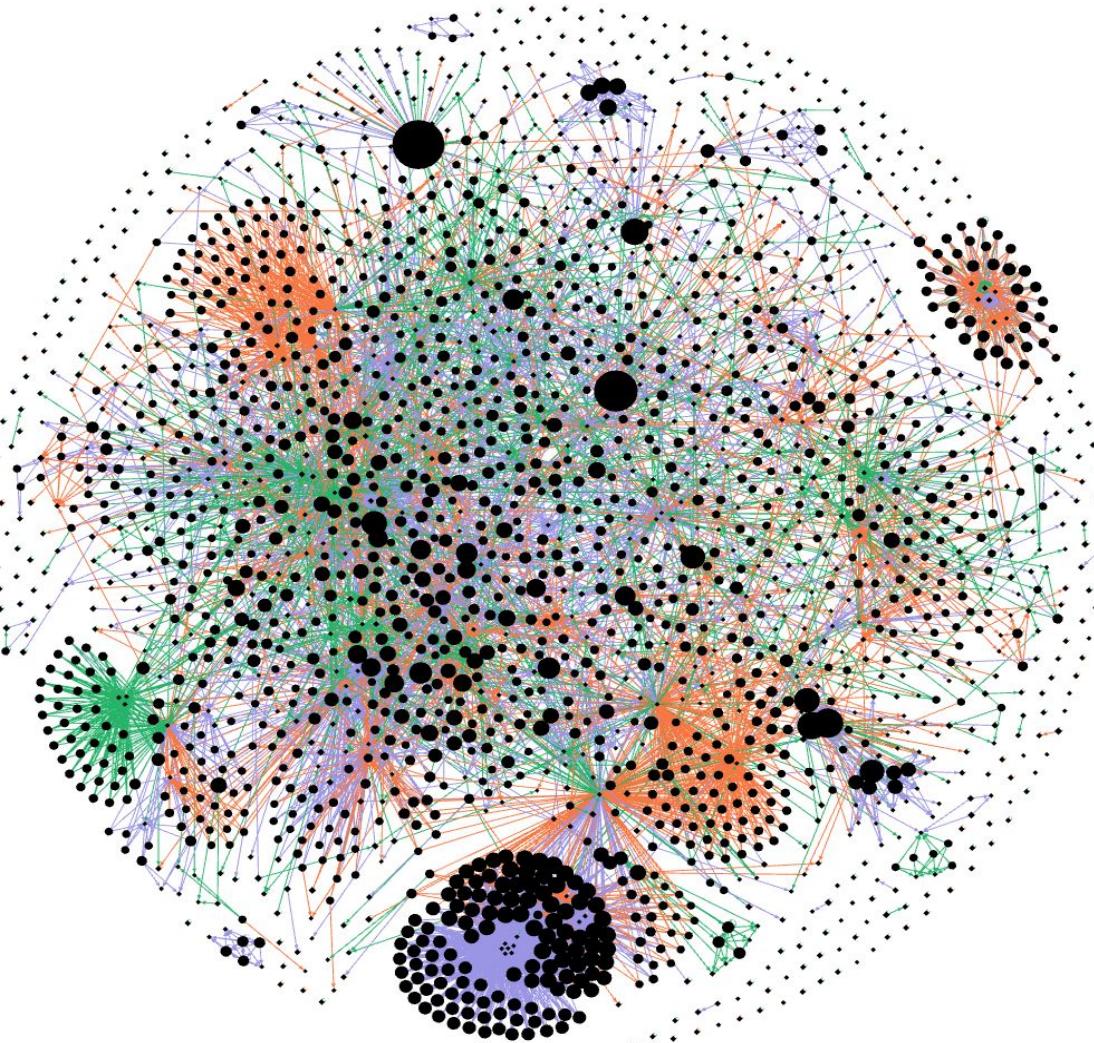


# Network Data Analysis

03

Looking at Network graphs to understand our data





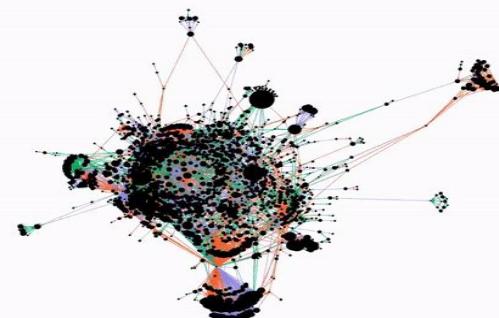
# Plotting all data points on a network graph

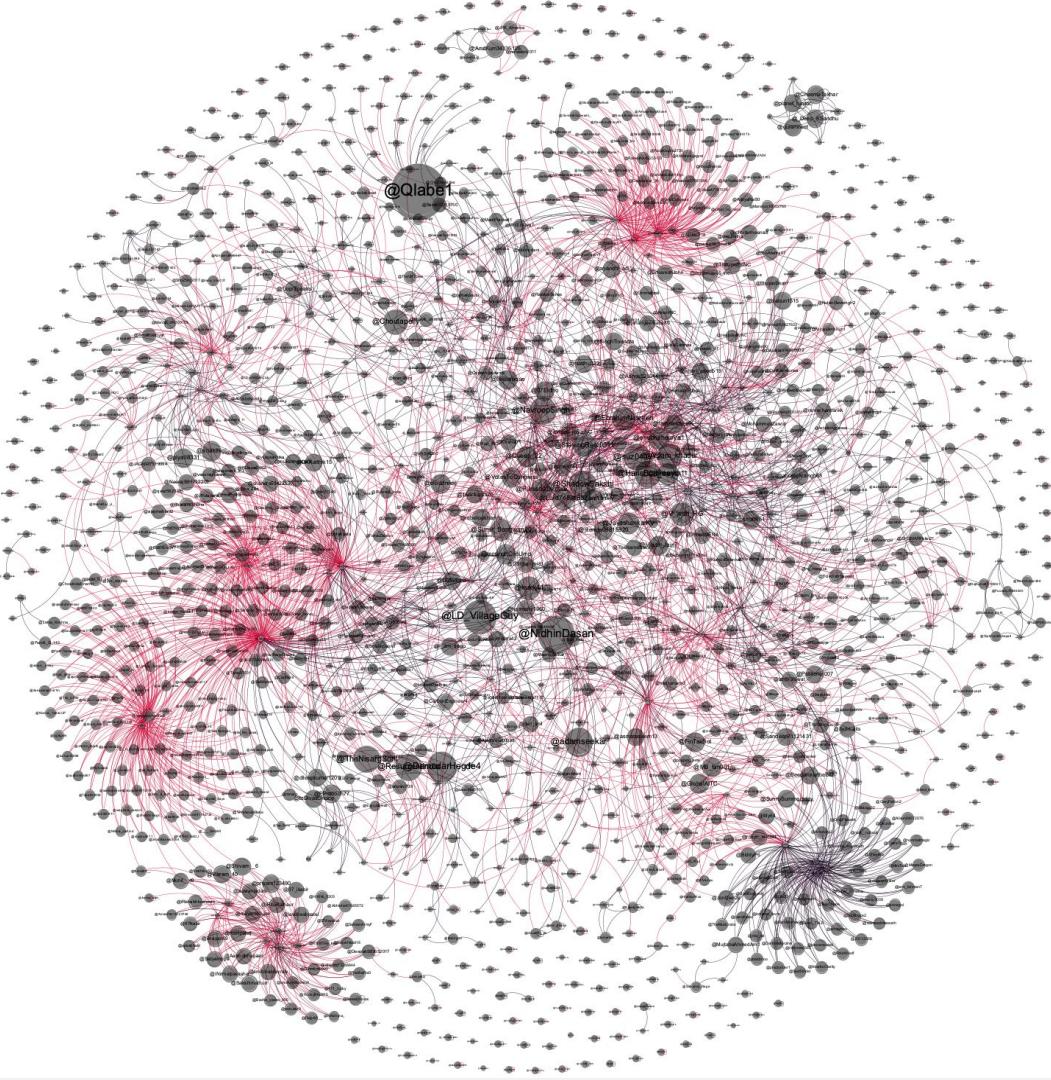
Edges represent:

- Orange : Negative sentiment
- Green : Positive Sentiment
- Purple : Neutral Sentiment

Node size represents : Out degree

Layout: Fruchterman Reingold





# Plotting only the positive and negative sentiments on network graph

Edges represent:

- Red : Negative sentiment
- Black : Positive Sentiment

Node size represents : Out degree



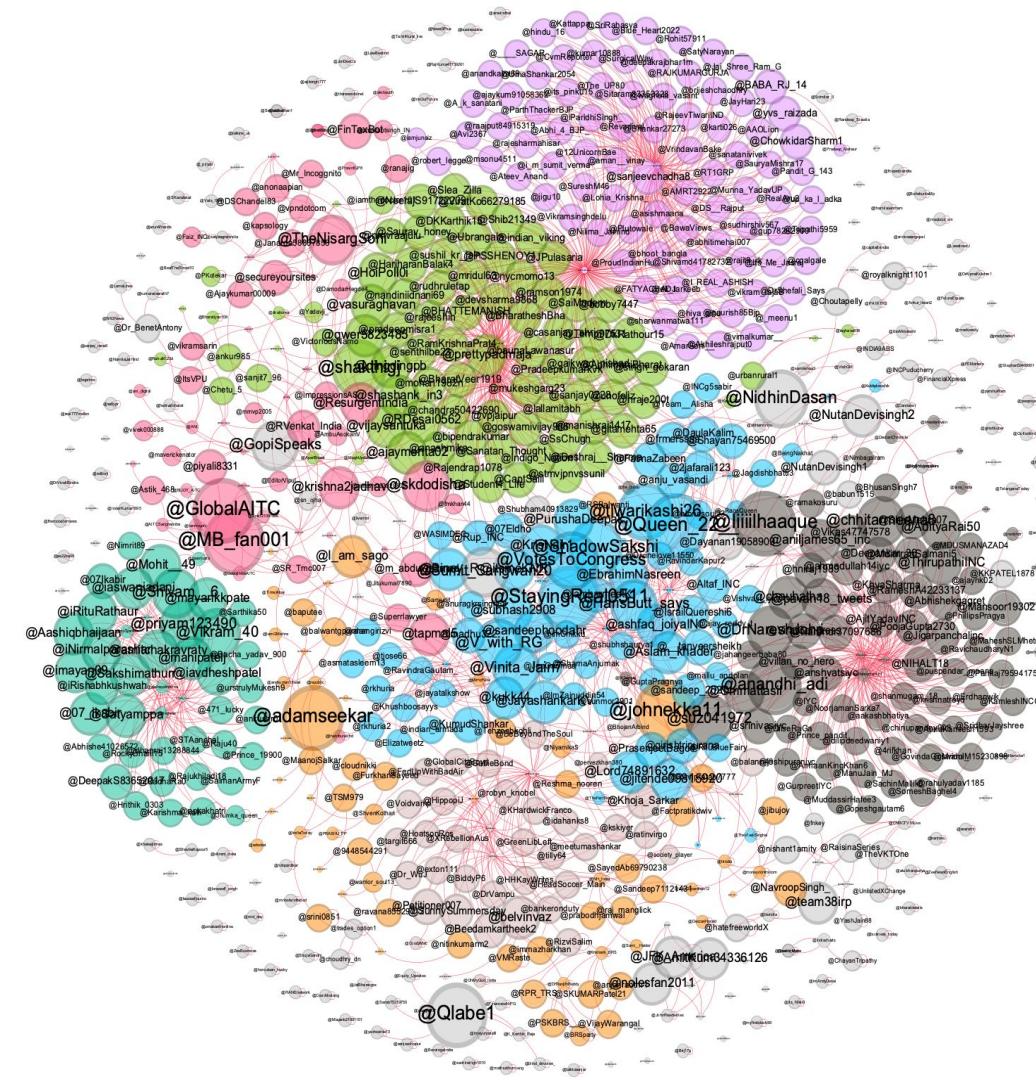
# Community Detection

Node size represents : Out degree

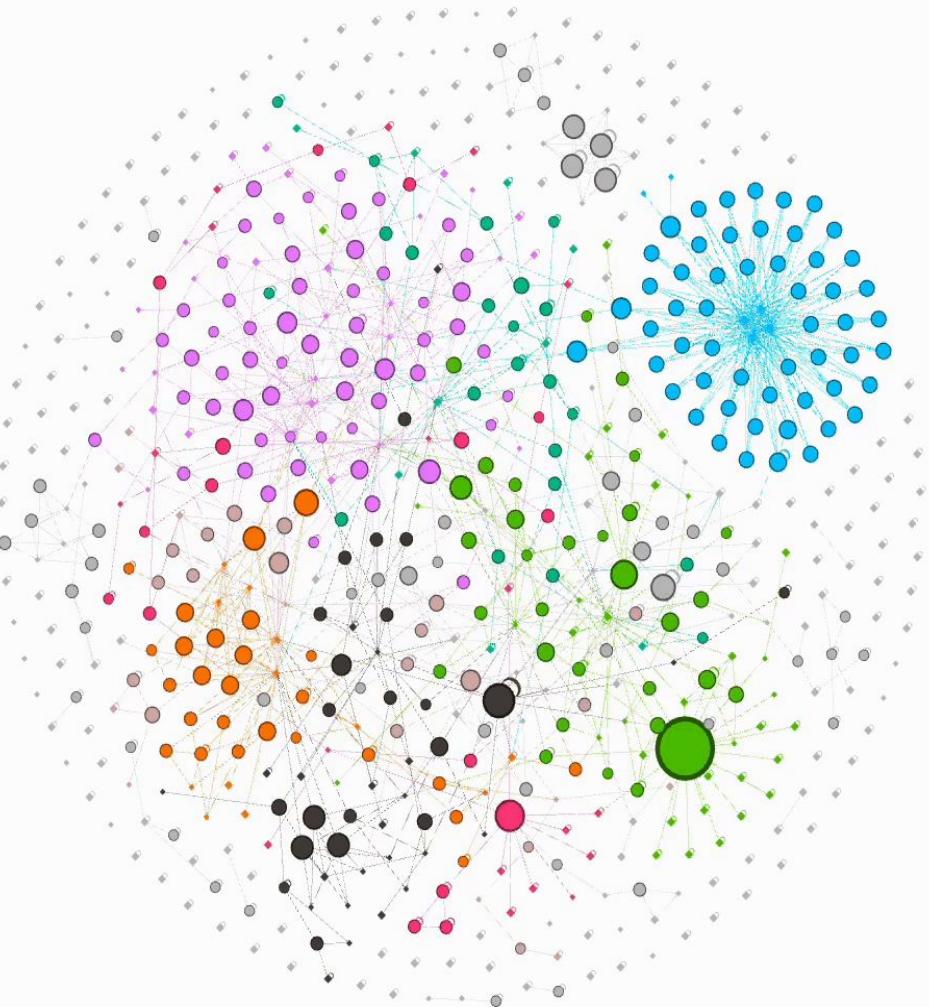
Community detection is a technique to identify clusters or groups within a network

Gephi also allows for visualizing and exploring these communities in various ways, such as color-coding and sizing nodes based on their community membership

# Looking into communities within only tweets with negative sentiment

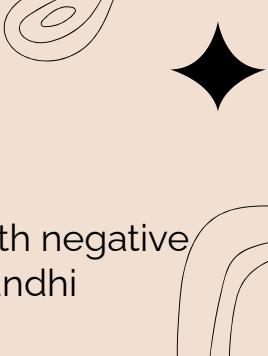


- Pink: BJP supporters
- Light Green: Indian Youth
- Black: Non-BJP supporters
- Blue: Women Activists
- Green: Business Owners



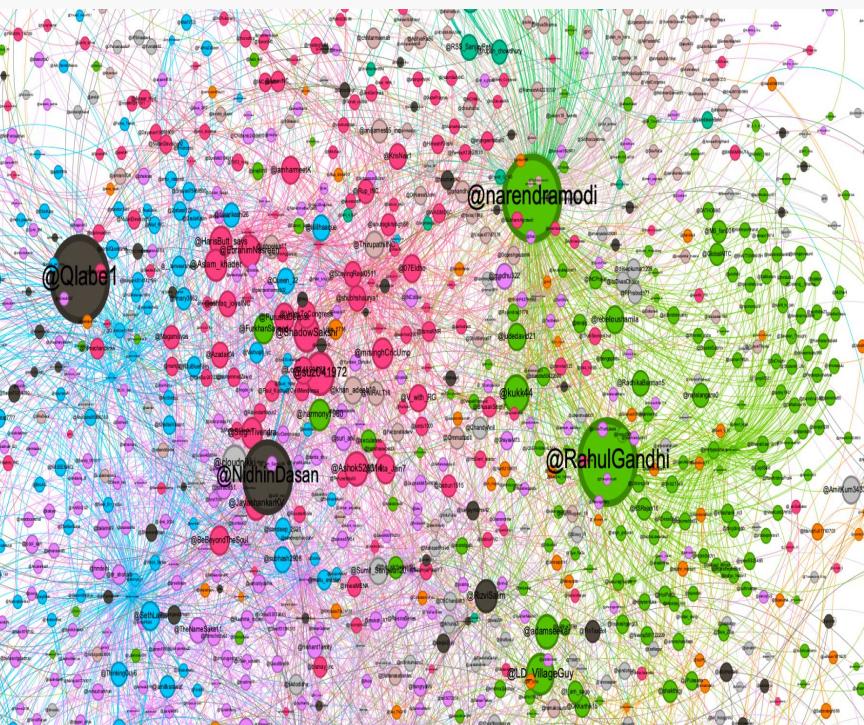
## Looking into communities within only tweets with positive sentiment

- Light Blue : Non-Indians
- Orange: Forex Traders
- Pink : Finance Tweets

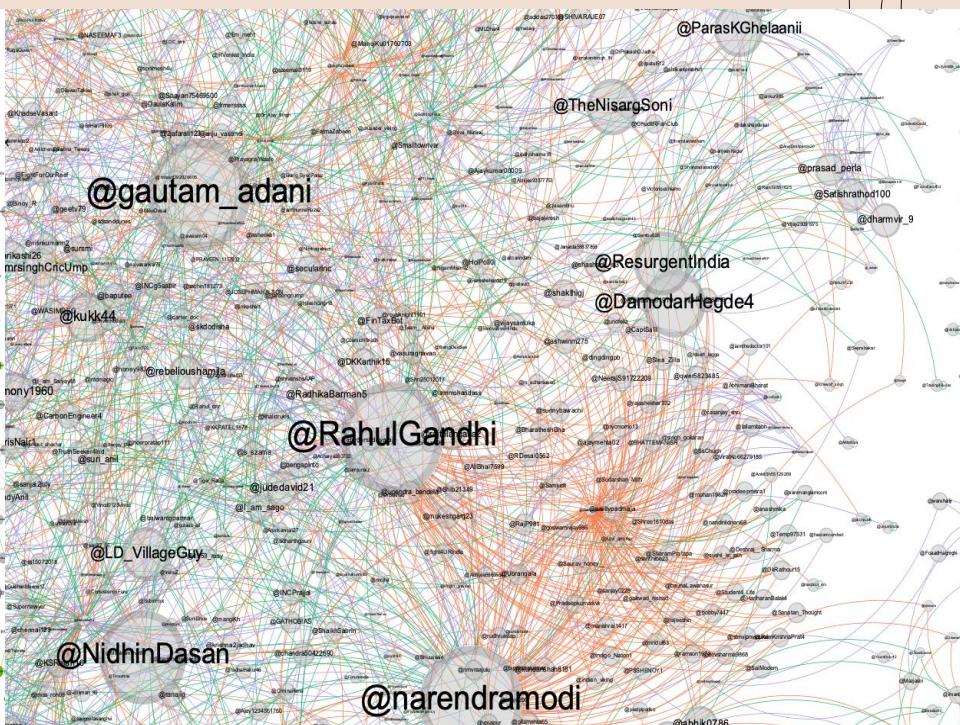


# Interesting Observations

Both Narendra Modi and Rahul Gandhi are in same community

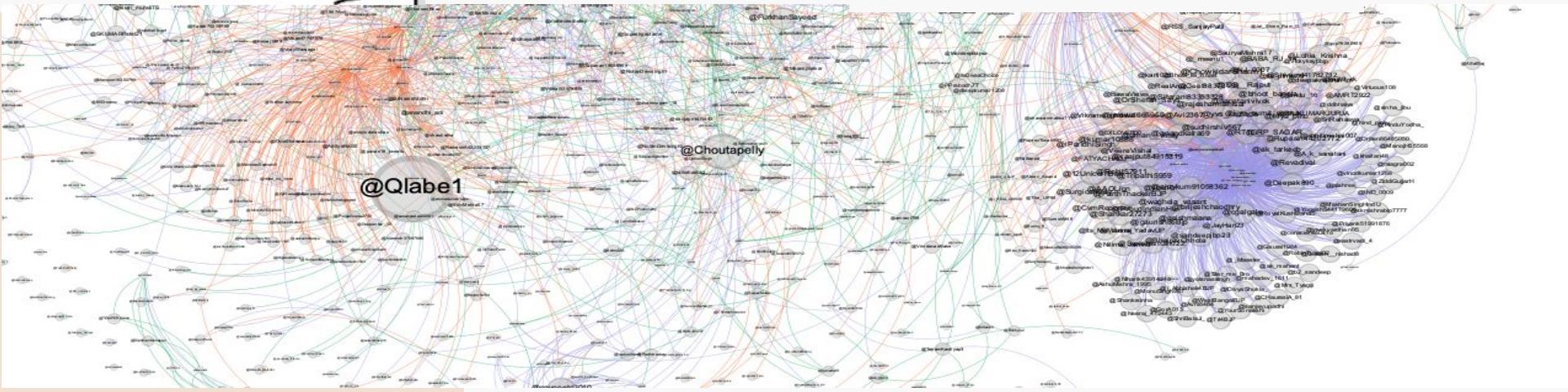
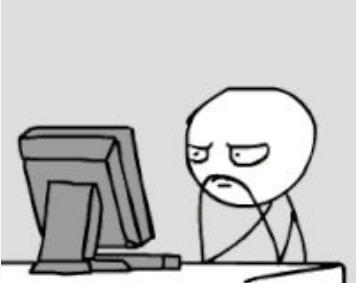


People are sending a lot of tweets with negative sentiment to both Modi and Rahul Gandhi



# Looking for Potential Trolls in the network

- Trolls are users who deliberately create online chaos and disrupt discussions.



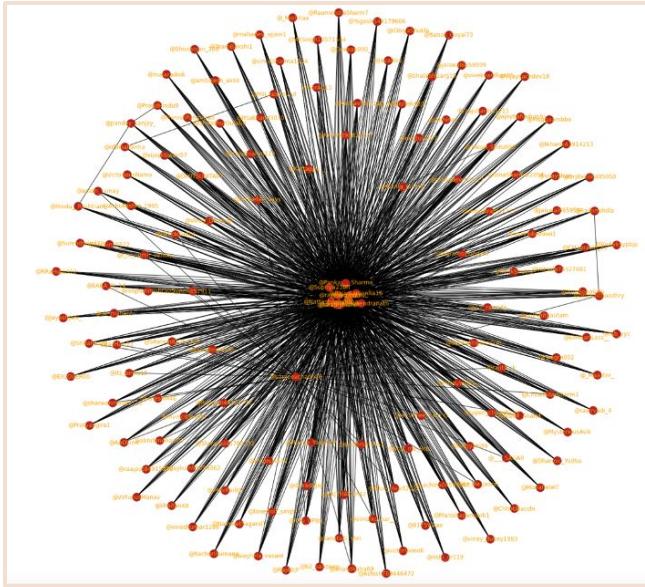
## What to look for:

- High betweenness centrality:** trolls often act as "bridges" between different parts of the network, allowing them to spread their messages more effectively.
- High degree centrality:** trolls may have a large number of connections in the network, allowing them to reach more users with their messages.



# Network Cliques

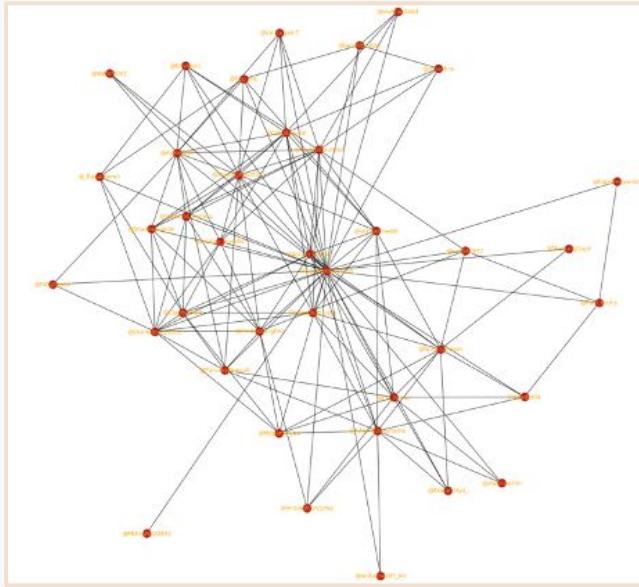
## All Languages



Max. Size of Cliques: 4

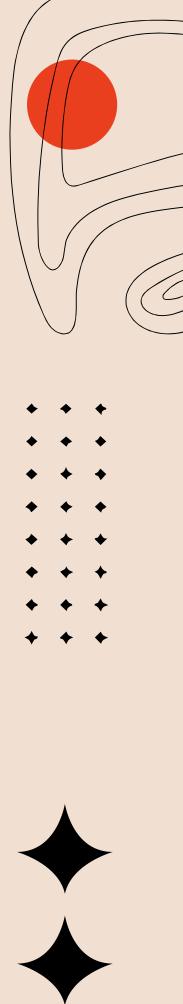
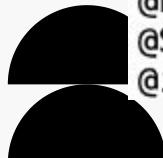
@RajivRanjanRa16	387
@sanjeevchadha8	342
@swati_mishr	43

## Only English



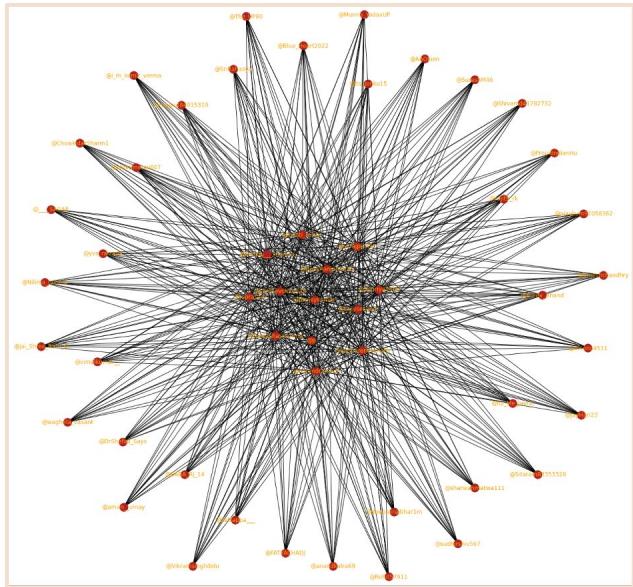
Max. Size of Cliques: 5

@EbrahimNasreen	16
@StayingReal0511	12
@itsmeKNR	10



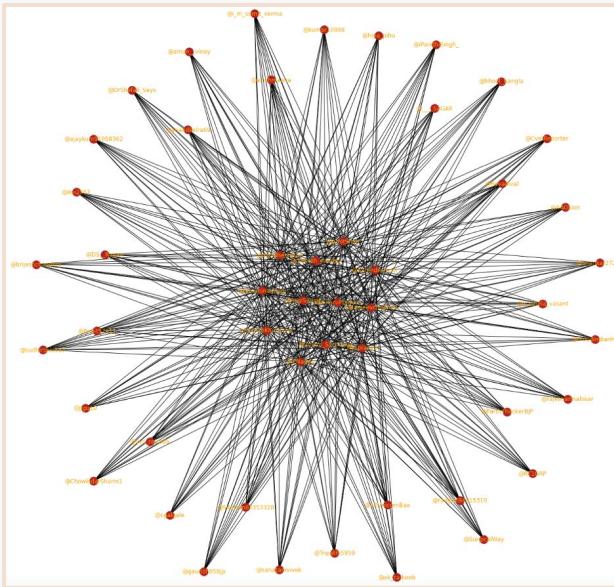
# Network k-Core

All Languages

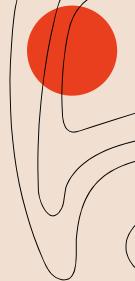
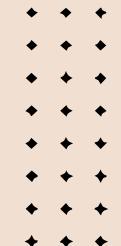
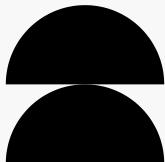


Max. k-Core Size: 13  
Number of Users: 51

Only English



Max. k-Core Size: 12  
Number of Users: 49



You will find all my tweets ....



... Follow

Rajiv Ranjan Raju  Tweet with theme  
@RajivRanjanRa16

VISIT:LIKE+MEDIA FOR MY POST  
(twitt.buzz/rajivranjanra16) followed by @amanchopra\_@KapilMishra.ind  
@TarekFatah @Shehzad.ind @AnamikAmber @RahulEaswar

⌚ मेरे पोस्ट:-बस मीडिया/लाइक में Joined January 201

573 Following 4,286 Followers

Not followed by anyone you're following

# @RajivRanjanRa16

## Profile

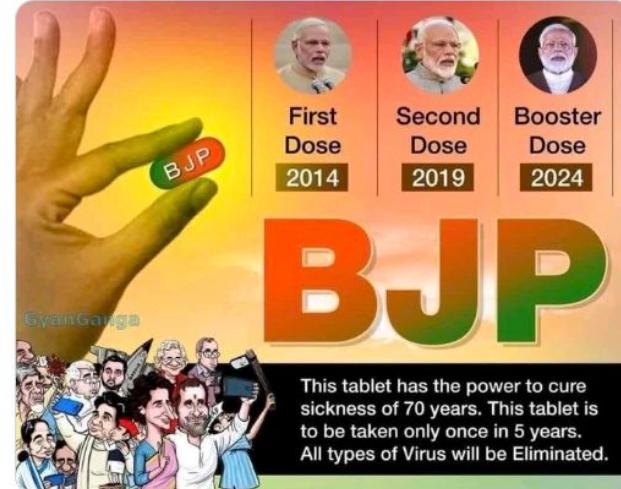
Status: Pro-Adani  
Supports: BJP



t Rajiv Ranjan Raju  Tweet with theme Retweeted

SHRUTI MITRA ❤️❤️ @Shruti\_02 · 13h

Ayega toh Modi hi  



5 121 171 2,709

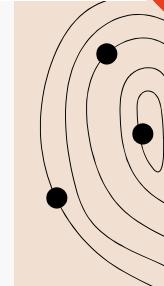


108

977

3,711

70.7K





... Follow

Nasreen Ebrahim

@EbrahimNasreen

No DMs Please

India twitter.com Joined September 2011

2,593 Following 2,778 Followers

Not followed by anyone you're following

Twitter



Nasreen Ebrahim (@EbrahimNasreen) / Twitter

# @EbrahimNasreen

## Profile

**Status:** Anti-Adani  
**Supports:** Congress



Nasreen Ebrahim @EbrahimNasreen · Feb 10

I chose jail over BJP's offer of joining them and becoming the Deputy CM. Neither can anything deter my spirit nor will I bow down for personal gains. @DKShivakumar @INCKarnataka @INCIndia



2 37 53 617



Nasreen Ebrahim @EbrahimNasreen · Feb 5

@RahulGandhi @INCIndia have won the hearts of most Indians in #BharatJodoYatra

Indians now know they have a voice, feel wanted and heard. The era of BJP RSS and their fear tactics is over. Love , peace and unity are winning.



Nasreen Ebrahim @EbrahimNasreen · Feb 1

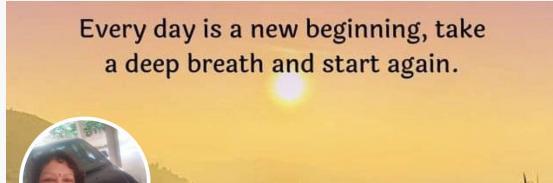
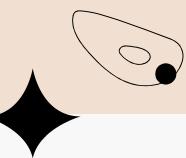
100% True. It's time to heal what RSS BJP have done to our Country.



- Criminals are identified by CLOTHES.
- Bails are given as per RELIGION.
- History is taught By MOVIES.
- Hate speeches are decided by SMILES.

The Reality Of  
NEW INDIA!

3 23 44 643



**Shree Speaks**  
@StayingReal0511

Entrepreneur,  
Social Media Influencer!  
Proud Indian 🇮🇳

State Secretary @SM INC Karnataka !

Secular, Liberal & Anti-Fascist!

RTs Not Endorsements!

NO DMs Please.🙏

Entrepreneur ⓘ Bengaluru, India Joined February 2019

2,407 Following 9,715 Followers

Not followed by anyone you're following

# @StayingReal0511

## Profile

**Status:** Anti-Adani

**Supports:** The Congress



Shree Speaks @StayingReal0511 · Nov 7, 2022

Congress is the only Party that evokes this kind of trust & confidence in people's minds.🔥  
Himachal Needs Congress !!!  
#HimachalKaSankalp

कांग्रेस जो वादा करती है वो  
निभाती है

कांगड़ा, हिमाचल



0:09 | 324 views

इस बार हिमाचल में कांग्रेस की सरकार  
आएगी

2

62

97

11

↑



Shree Speaks @StayingReal0511 · Feb 9

Epic trolling🔥🔥  
Modi-Adani Friendship Goals 😱🔥  
#ModiJPcseDaroMat



Q

t

49

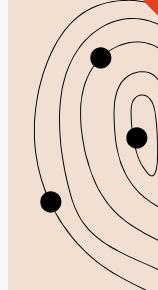
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60

ll

610

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# Conclusion

Wrapping Up

04

# Conclusions

## Bots

- Do not have a specific position towards Adani
- Tweet negative, positive and neutral comments
- Recently got suspiciously deleted from Twitter

## Positive vs Negative

- Negative more organized into different communities
- Positive tweets belong to individual users outside of a specific community

## Next Steps

- Scrape @Qlabe1 tweets, check if it is actually a bot, and learn about the topics of its tweets



**Thank you,  
We are open for  
any questions!**



**H** HINDENBURG  
RESEARCH

**adani**

**Call the ambulance!**

**adani**

**But not for me!**