



## Session 6:

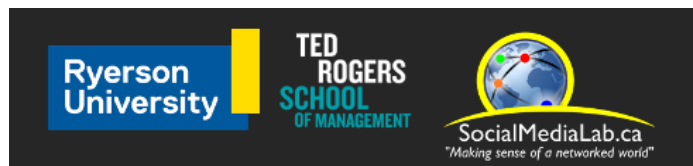
- 1) Data Collection using CrowdTangle  
(Facebook & Instagram URL-Search Data)
- 2) Two-mode Semantic Networks
- 3) Twitter Bot Detection with Botometer API

July 22, 2021

SocialMediaLab.ca



“Making Sense of a Networked World”



## The Social Media Lab is a multidisciplinary research laboratory at Ryerson University in Toronto, Canada

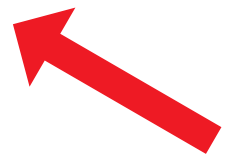
The lab studies how social media is changing the way people communicate, share information and form communities online, and how these changes impact society.

Videos and slides from past sessions are available online at: [communalytic.com](https://communalytic.com)



FAQ TUTORIALS PUBLICATIONS

CSS BOOTCAMP

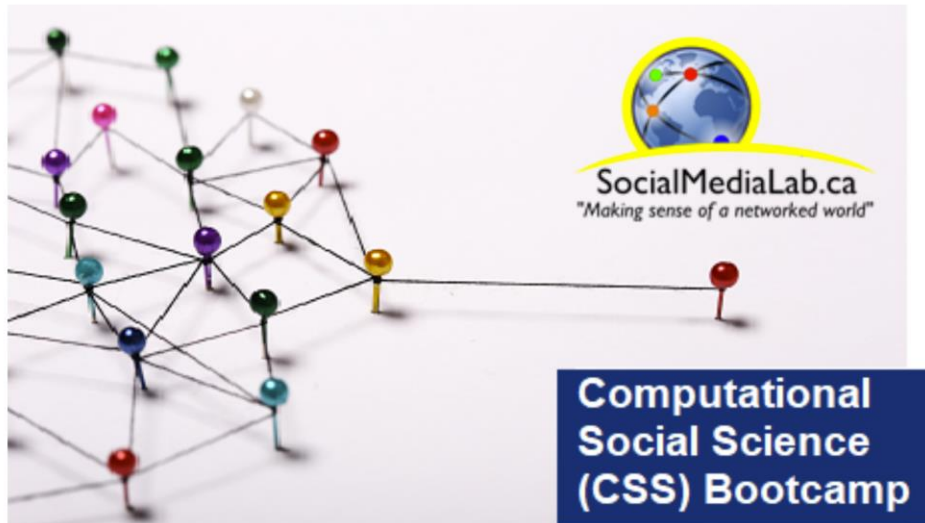


APR  
07  
2021

## Social Media Lab's Computational Social Science (CSS) Bootcamp – Summer 2021

Off

By COMMUNALYTIC



**What: CSS Bootcamp on Examining Online Discourse & Networks with Communalytic**

**When: 2<sup>nd</sup> and 4<sup>th</sup> Thursday of the month at 10 am -11:30 am (ET) between May and July, 2021.**

**Where: Zoom (see details below)  
Free Registration via Zoom**



# Outline

1. Data Collection using CrowdTangle (Facebook & Instagram URL-Search Data)
2. Two-mode Semantic Networks
3. Twitter Bot Detection with Botometer API (*Tiago Ribeiro*)

# A tool from Facebook to help follow, analyze, and report on what's happening across social media.

Learn about the product and what data we track.

<https://www.crowdtangle.com/>

# What Facebook/Instagram data does CrowdTangle cover?

- **Facebook: 7M+ Facebook pages, groups, and verified profiles.** This includes all public Facebook pages with more than 25K Page Likes or Followers (automated via API), all public Facebook groups with 95k+ members, all US-based public groups with 2K+ members, and all verified profiles.
- **Instagram: 2M+ public Instagram accounts.** This includes all public Instagram accounts with more than 50K followers, as well as all verified accounts.

<https://help.crowdtangle.com/en/articles/1140930-what-data-is-crowdtangle-tracking>

## Verify Your Accounts on Facebook and Instagram

### ✓ Eligibility

To be considered for a blue verified badge, Facebook Pages and profiles must adhere to our [Terms of Service](#) and [Community Standards](#), as well as have a [profile photo](#), [cover photo](#) and a Page name that follows [our guidelines](#). Instagram accounts must follow our [Terms of Service](#) and [Community Guidelines](#).

Accounts must also be:

- Authentic**  
Your account must represent a real person, registered business or entity.
- Complete**  
Your account must be public and have a bio, profile picture and at least one post. Your profile can't contain "add me" links to other social media services.
- Unique**  
Your account must be the unique presence of the entity it represents. Generally, one account per entity may be verified, with exceptions for language-specific accounts. We don't verify general interest accounts (ex. puppy memes).
- Notable**  
Your account must represent a well-known, highly searched for individual, brand or entity. We review accounts that are featured in multiple news sources. We don't consider paid or promotional content as sources for review.

### Facebook verification badge



### Instagram verification badge



# What public Facebook Pages does CrowdTangle cover?

The table below summarizes the percentage of **Facebook Pages active in the last 28 days** that CrowdTangle tracks, broken down by number of Page Likes or Followers (**last updated 6/08/2021**). It does not include places ([like this example](#)), which do not contain any posts. The table will be updated every 30 days.

Number of Page Likes/Followers	Percentage of Pages CrowdTangle Tracks
>50,000	99.83%
>30,000	86.21%
>10,000	48.18%
>7,500	40.35%
>5,500	33.24%
>2,500	19.40%
>500	7.18%
ALL	1.72%

## CrowdTangle for Academics and Researchers

Learn more and apply to join our program



Written by Naomi Shiffman  
Updated over a week ago

CrowdTangle started a pilot program in 2019 to partner with researchers and academics to help them study the spread of public content on Facebook and

### Apply to Access CrowdTangle

[Apply](#) to be part of CrowdTangle's Academics & Researchers program and get access to the CrowdTangle interface and API, as well as training and resources. Before applying, [learn more about how Academics & Researchers use CrowdTangle here](#). We're currently prioritizing **university researchers (faculty, PhD students, post-doctoral research fellows)** focused on:

- Misinformation
- Elections
- COVID-19
- Racial justice
- Well-being



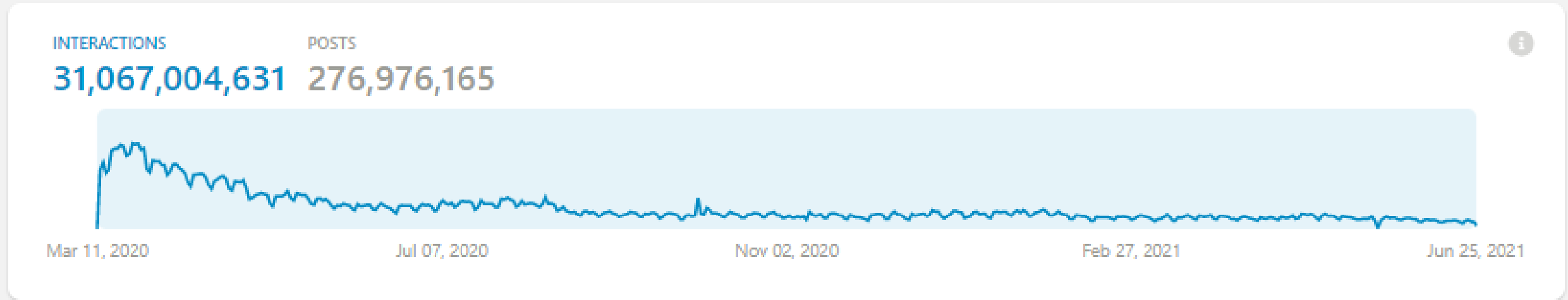
# CrowdTange Search Example: COVID-19 mentions on Facebook (across public pages, groups and accounts)



Search: COVID OR COVID19 OR COVID-19 OR Coronavirus OR Pandemic

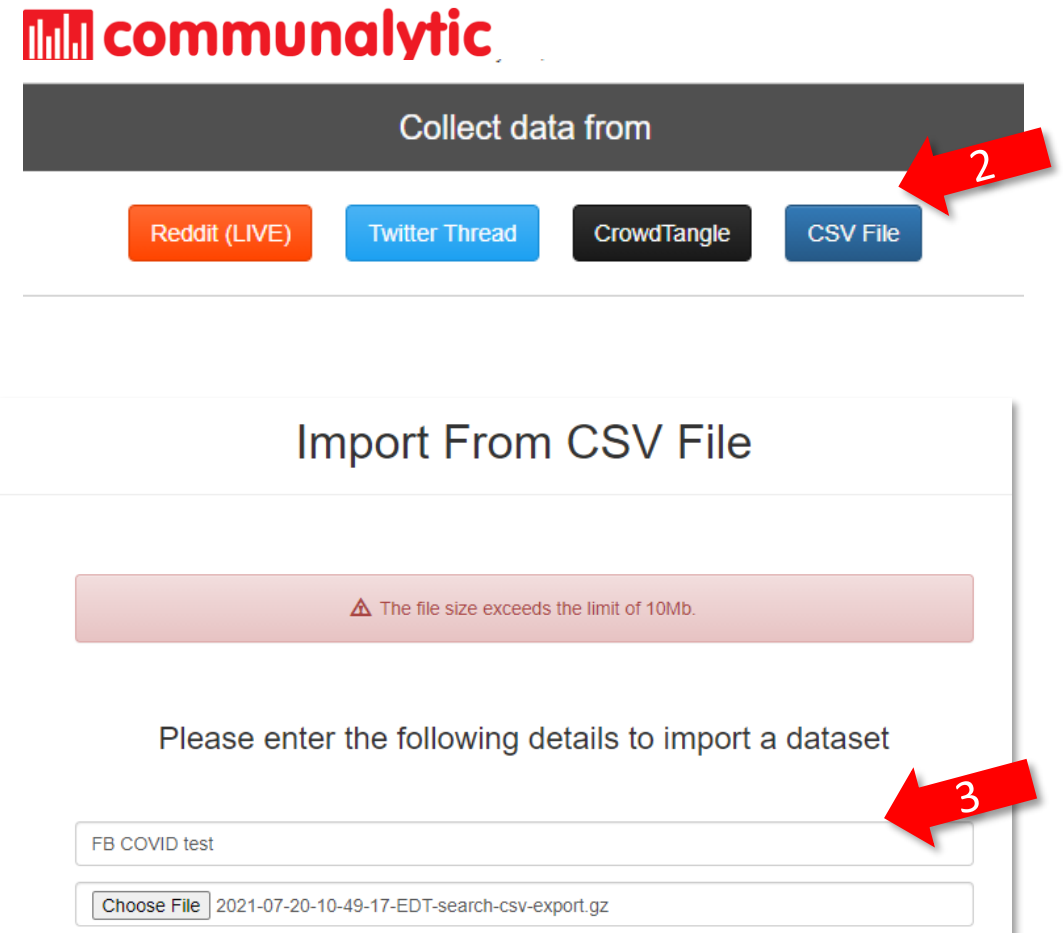
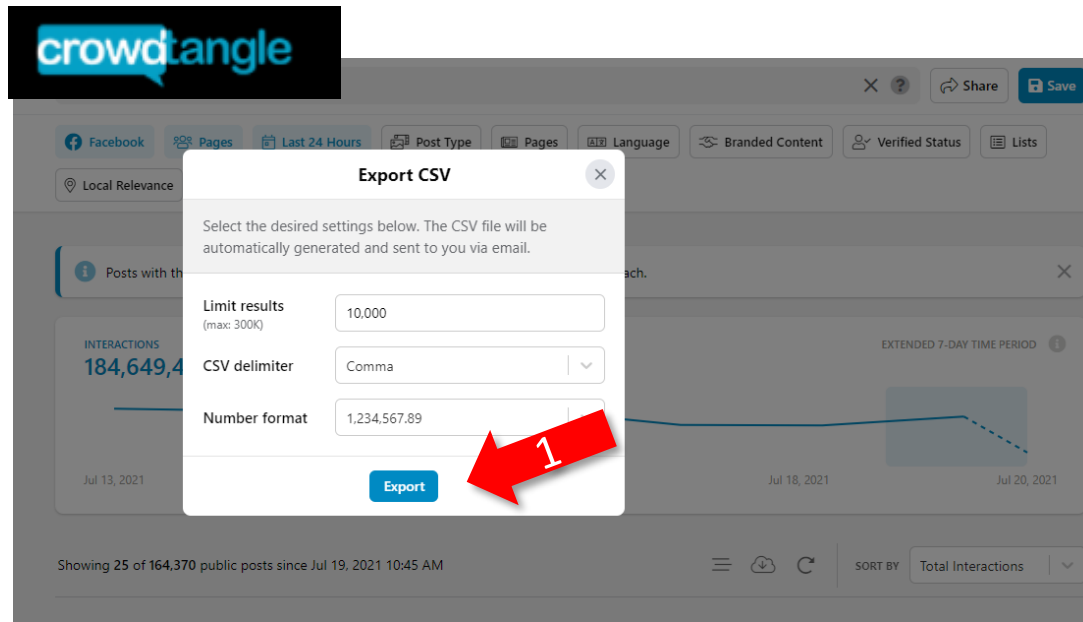
Facebook | Pages, Groups, 1 more | Mar 11, 2020 - Jun 25, 2021 | Post Type | Pages, Groups & Verified Profiles | Language

Branded Content | Verified Status | Lists | Local Relevance | Page Admin Country | Meme Search



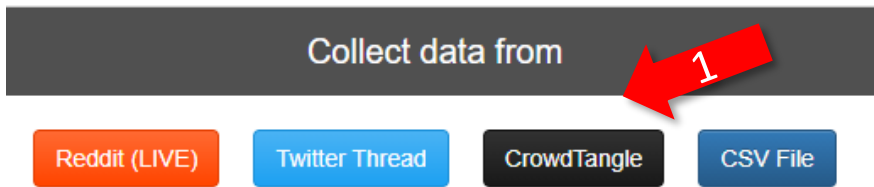
# Two options to import data from CrowdTangle into CommuAnalytic

## Option 1: Export -> Import as a CSV file



# Two options to import data from CrowdTangle into Commanalytic

## Option 2: Direct Import via CrowdTangle's URL-search API



Via CrowdTangle, Commalytic can collect and analyze public Facebook and Instagram posts that shared the same URL.

Example: A URL to a New York Times story or the URL to any domain name

## CrowdTangle Data Import

Please enter the following details to begin collection

Dataset name

Hyperlink to search (eg. <https://cnn.com/>) ?

Facebook

Start date (in UTC):

2021-01-31

End date (in UTC):

2021-02-07

To use this form, you need to have access to CrowdTangle. [See more information about this API here.](#)



# Sample URL-based Search with CrowdTangle

A news story about a possible side-effect of the Pfizer-BioNTech COVID-19 vaccine

Facebook posts sharing and commenting on this news story



	A	B	C	D	E	F	G	H
1	postid	date	updated	message	platform	postUr	postScore	author
2	12801832	#####	#####	And the FDA says	Facebook	https://wv	-3.375	Dr. Green
3	8115262	#####	#####	◆ Após terem sid	Facebook	https://wv	-0.75	Portugues
4	12034948	#####	#####	Quatro voluntários	Facebook	https://wv	-40	Fechado c
5	11286838	#####	#####	# **"Ma Jimpurtha	Facebook	https://wv	-26	Coronavir
6	12916638	#####	#####	https://zeenews.in	Facebook	https://wv	-16	Titletown
7	12036379	#####	#####	Still want it?	Facebook	https://wv	-12	Pure Hem
8	10837622	#####	#####	COVID-19: Quatro v	Facebook	https://wv	-2.6	Passageiro
9	9843570	#####	#####	Quatro voluntários	Facebook	https://wv	-40	2 milhões
10	12893895	#####	#####	Quatro voluntários	Facebook	https://wv	-2.5	TAUBATE

	I	J	K	L	M	N	O
	handle	accountId	accountPlatformId	subscriberCoun	verified	link	accountTyp
	DrGreenM	12801832	5.42303E+14	3839	FALSE	https://zeenews.india.	
	es no reinc	8115262	1.43779E+15	17460	FALSE	https://www.facebook	
	om Jesus e	12034948	2.92951E+15	3890	FALSE	https://www.facebook	
	s News M	11286838	2.63281E+15	943	FALSE	https://zeenews.india.	
	Cheesehea	12916638	1.09483E+14	1083	FALSE	https://www.facebook	
	PureHemp	12036379	2.05578E+14	145	FALSE	https://zeenews.india.	
	s do Trans	10837622	4.56768E+14	7221	FALSE	https://zeenews.india.	
	de mulhere	9843570	2.9583E+14	5669	FALSE	https://www.facebook	
	ALERTA	12893895	3.31977E+15	1746	FALSE	https://www.facebook	

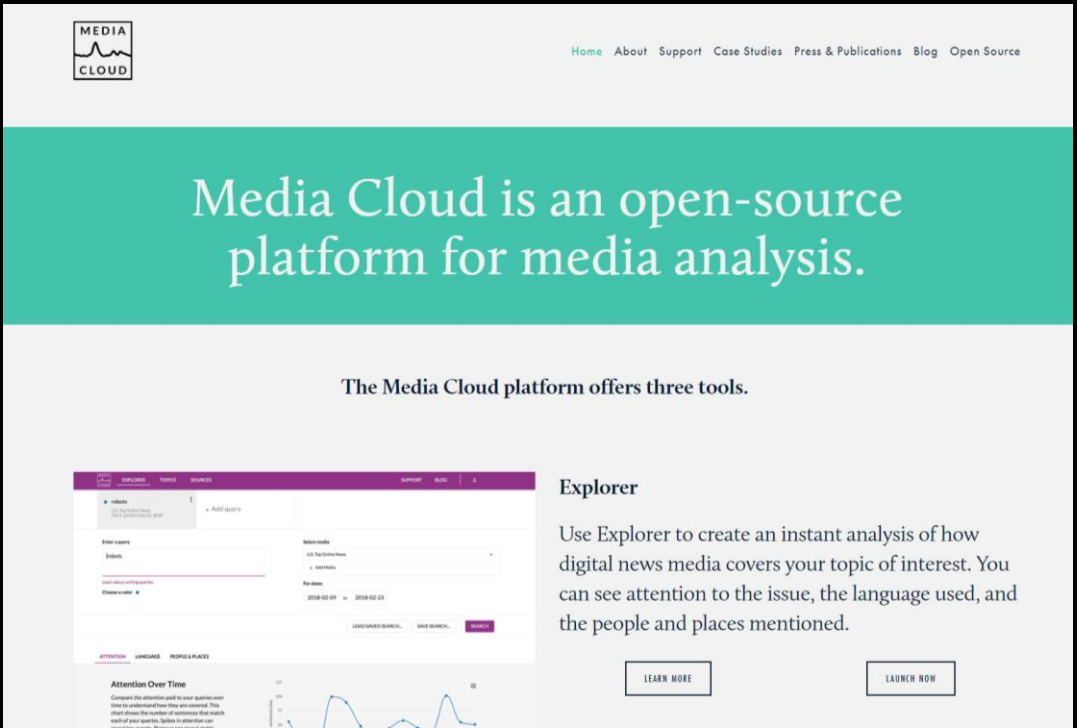
<https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html>

# Research Projects using CrowdTangle's URL-based Search

## Sample Research Topics

- Identify signs of possible coordination among seemingly disparate accounts on platforms like Facebook and Instagram
- Identify who is sharing URLs to low credibility websites, known to spread misinformation on different topics

## Ex. Database of Media Coverage



The screenshot shows the Media Cloud website homepage. At the top left is the Media Cloud logo. To the right is a navigation menu with links for Home, About, Support, Case Studies, Press & Publications, Blog, and Open Source. A large teal banner contains the text: "Media Cloud is an open-source platform for media analysis." Below the banner, it says "The Media Cloud platform offers three tools." A screenshot of the Explorer tool interface is displayed, showing a search form with fields for "Enter query", "Enter date", and "Per date". Below the search form is a line graph titled "Attention Over Time". To the right of the Explorer tool screenshot, there is a section titled "Explorer" with the text: "Use Explorer to create an instant analysis of how digital news media covers your topic of interest. You can see attention to the issue, the language used, and the people and places mentioned." At the bottom of this section are two buttons: "LEARN MORE" and "LAUNCH NOW".

<https://mediacloud.org/>

# Research Projects using CrowdTangle's URL-based Search

## Sample Research Topics

- Identify signs of possible coordination among seemingly disparate accounts on platforms like Facebook and Instagram
- Identify who is sharing URLs to low credibility websites, known to spread misinformation on different topics

### Ex. Database of Low Credibility Websites

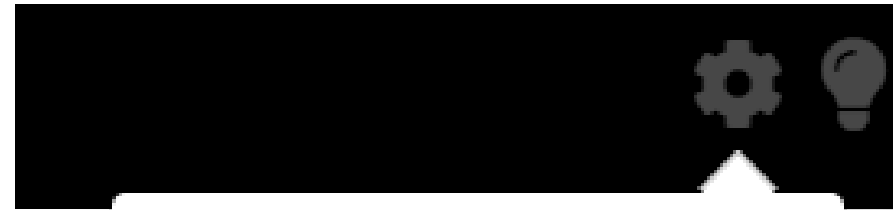
 **NewsGuard**

How It Works

## NewsGuard for Researchers

Reliability ratings and descriptive metadata for 6,000+ widely-consumed news and information websites

<https://www.newsguardtech.com/newsguard-for-researchers/>



Account Settings

Dashboard Settings

Edit Email Address

User Management

**Invite People**

API Access

Batch Upload

Historical Data

Visualizations

Log Out

My Profile

Share Requests 0

Share History

Logout

## Personal Details

Email: email@address.com

Datasets: 20/30

## API Keys

CrowdTangle API: [key] [Remove Key](#)Twitter Bearer Token: [key] [Remove Key](#)Perspective API: [key] [Remove Key](#)

Perspective is a machine learning API by Jigsaw and Google designed to conduct a 'toxicity' analysis of online comments. To use this API within Communalystic, please follow [these steps](#) to generate an API key. Once generated, enter your API key in the text field above.





Collect data from

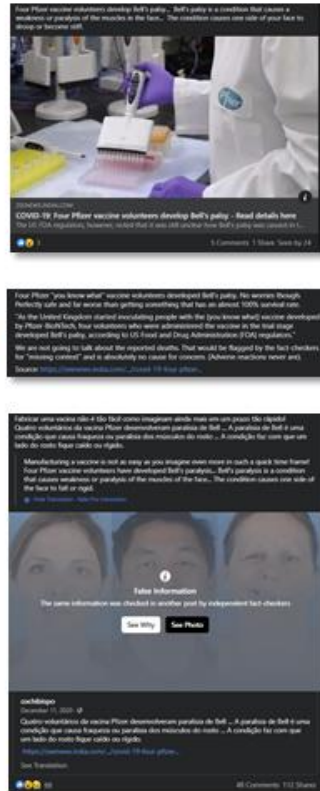
- Reddit (LIVE)
- Twitter Thread
- CrowdTangle
- CSV File

 ✕

A news story about a possible side-effect of the Pfizer-BioNTech COVID-19 vaccine



Facebook posts sharing and commenting on this news story



Please enter the following details to begin collection

Dataset name

<https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html> ?

Facebook

Start date (in UTC):

2021-01-31

End date (in UTC):

2021-02-07

To use this form, you need to have access to CrowdTangle. See more information about this API here.

My Datasets

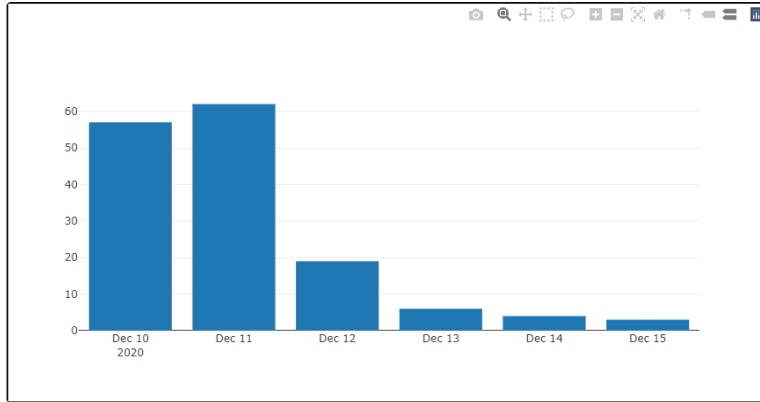
Shared With Me

Total records in the account: 15.1 million / 10M

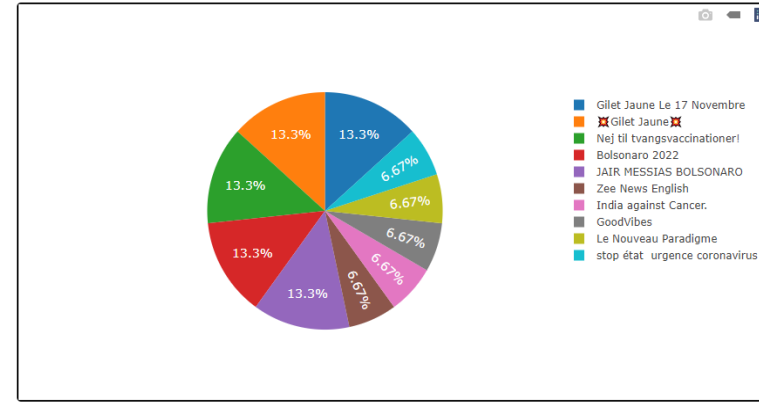
100%

Dataset Name	Number of Records	Toxicity Analysis	Network Analysis	Download Dataset	Collaborators	Delete
COVID-19: Bell's palsy in four Pfizer volunteers not due to vaccine, says US FDA  facebook : <a href="https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html">https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html</a>	151					

## 🕒 Posts Per Day

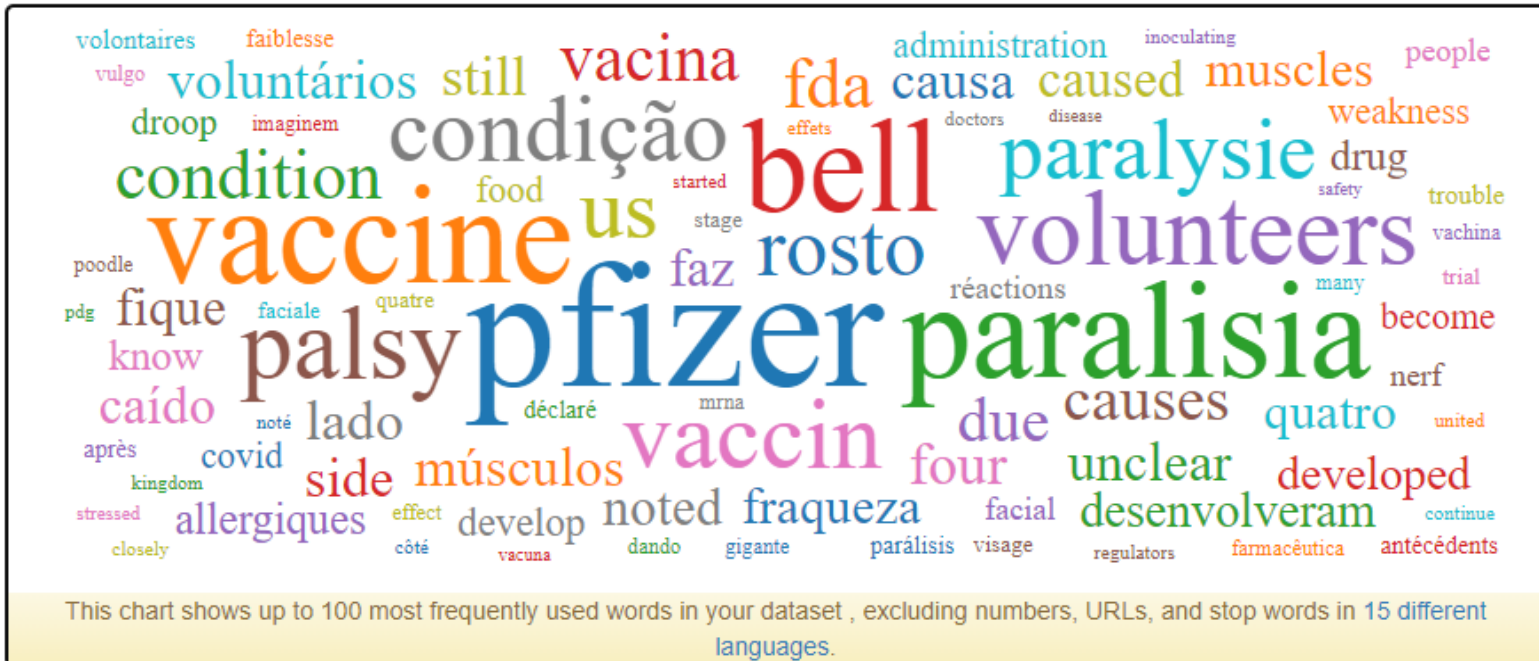


## 📄 Top Ten Posters

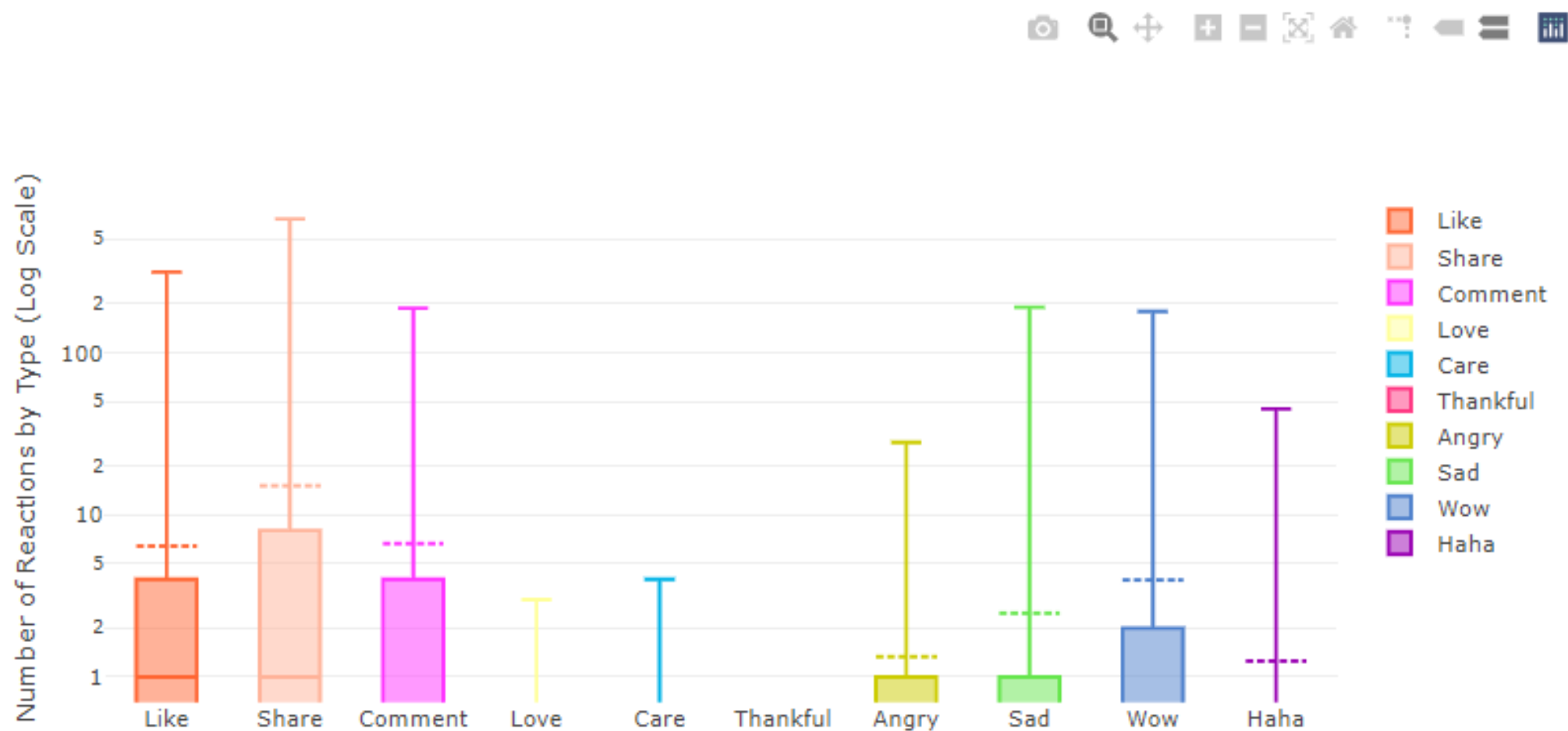


## ☁ Word Cloud

CSV EXCEL PNG



# Reaction Count Boxplots



# Toxicity Analysis

There were 151 comments analyzed in English

Print

Reset Analysis

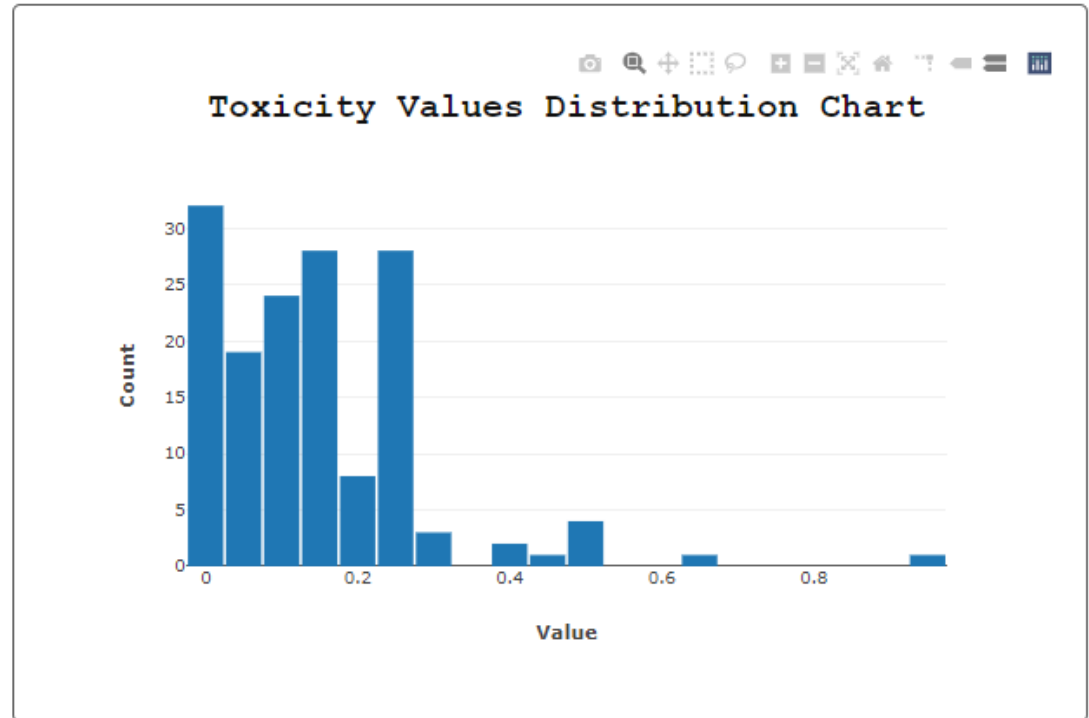
**⚠** The Toxicity analysis can only run with one language mode at a time. To change the primary language selection for this dataset, click on the Reset Analysis button and rerun the analysis as needed.

Click on the highest/lowest values to see the top posts for each category

Download the Toxicity analysis results as a CSV file.

	Average for dataset	Highest value	Lowest value
Toxicity ⓘ	0.15	<a href="#">0.96</a>	<a href="#">0.01</a>
Severe toxicity ⓘ	0.10	<a href="#">0.89</a>	<a href="#">0.00</a>
Identity attack ⓘ	0.13	<a href="#">0.80</a>	<a href="#">0.00</a>
Insult ⓘ	0.14	<a href="#">0.79</a>	<a href="#">0.01</a>
Profanity ⓘ	0.12	<a href="#">0.97</a>	<a href="#">0.00</a>
Threat ⓘ	0.15	<a href="#">0.49</a>	<a href="#">0.01</a>
Sexually Explicit ⓘ	0.10	<a href="#">0.85</a>	<a href="#">0.01</a>
Flirtation ⓘ	0.36	<a href="#">0.67</a>	<a href="#">0.18</a>

## TOXICITY VALUES DISTRIBUTION CHART





# Outline

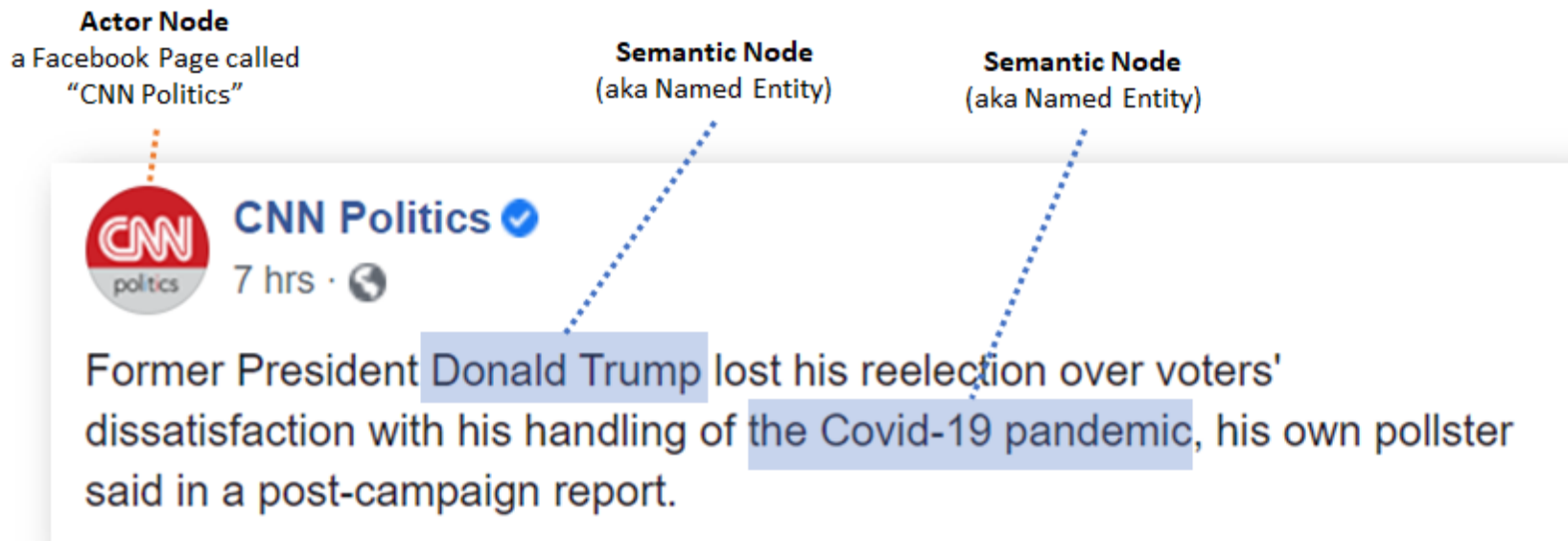
1. Data Collection using CrowdTangle (Facebook & Instagram)
- 2. Two-mode Semantic Networks**
3. Twitter Bot Detection

# Example of a Two-mode Semantic Network based on a single Facebook post

## Step 1: Node Discovery

From the metadata collected, Communalytic will recognize “CNN Politics” - a FB page - as an **Actor Node** and will designate it as such in the network.

Communalytic then uses natural language processing (NLP) to examine the content of the post and locate any **Semantic Nodes** (Named Entities). In this example, it found two **Semantic Nodes**: “Donald Trump” and “Covid-19 pandemic”.



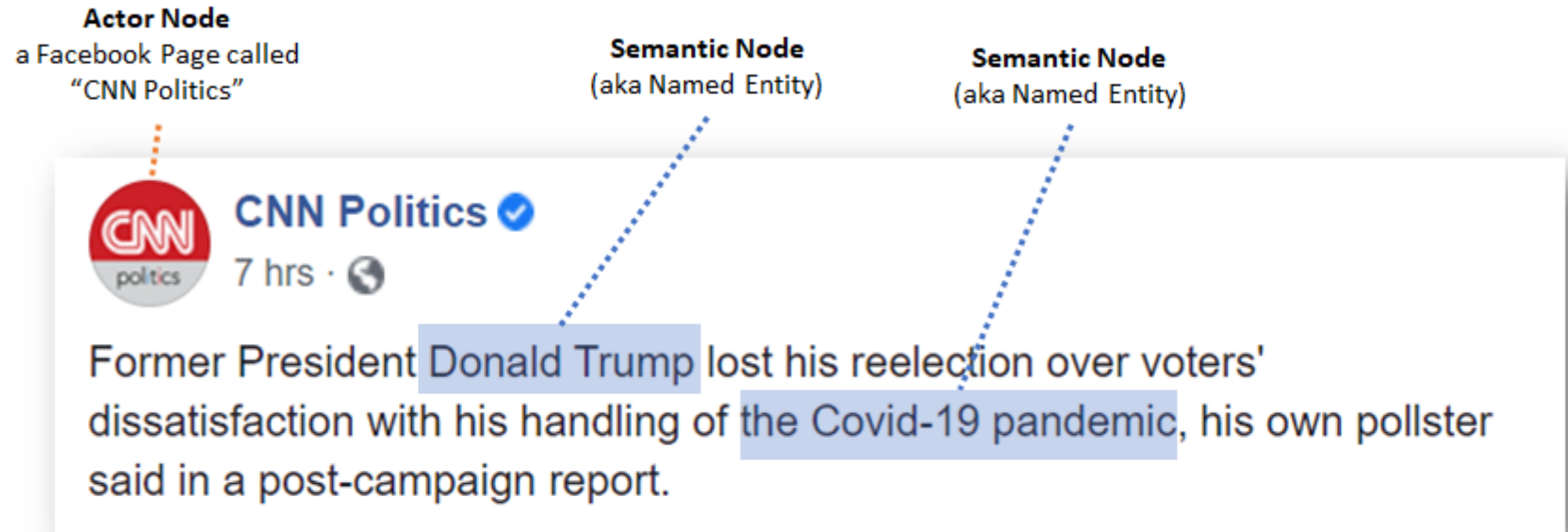


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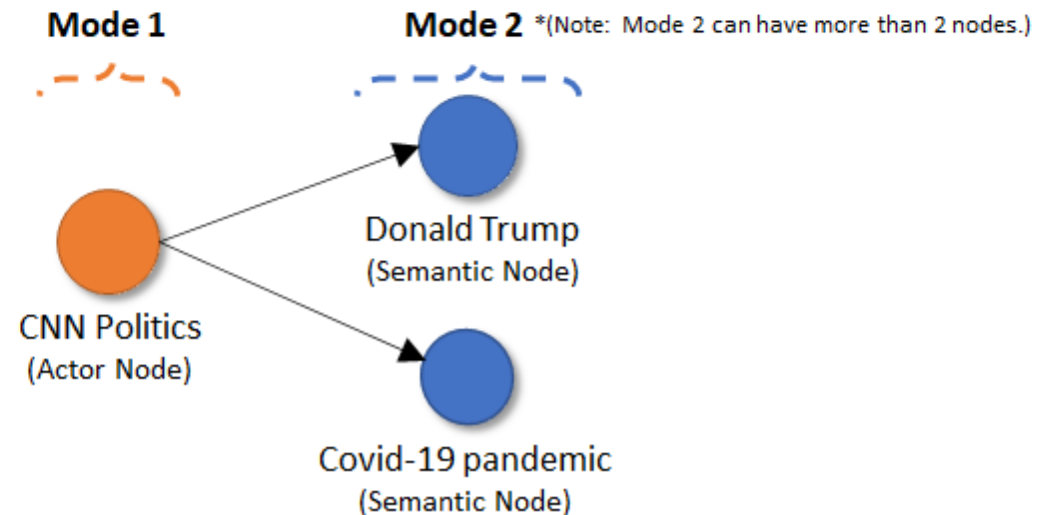
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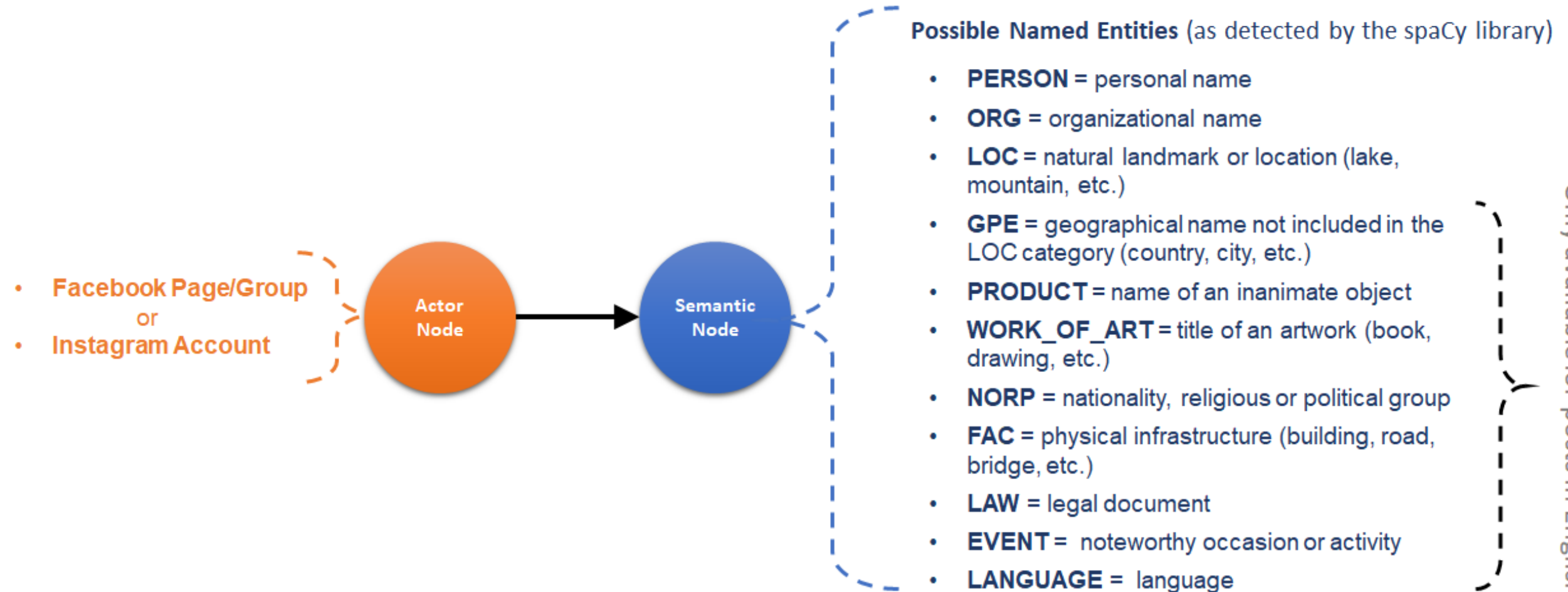
## Step 2: Edge Discovery

Next, to create a **two-mode network**, Communalytic automatically connects the **Actor Node** ("CNN Politics") to the two **Semantic Nodes** ("Donald Trump" and "Covid-19 pandemic").



# How are 'Named Entities' identified?

Communalytic relies on **spaCy**, a natural language processing library, to detect different types of named entities.



## Accuracy Measures for Named Entities Detection using spaCy:

<b>Language models</b>	<b>Precision [0.00-1.00]</b>	<b>Recall [0.00-1.00]</b>
<a href="#">English model</a>	0.86	0.85
<a href="#">Japanese model</a>	0.74	0.70
<a href="#">Chinese model</a>	0.74	0.69
<a href="#">Multi-language model</a>	0.84	0.83

<https://spacy.io/usage/linguistic-features#named-entities>

# A news story about a possible side-effect of the Pfizer-BioNTech COVID-19 vaccine



## COVID-19: Bell's palsy in four Pfizer volunteers not due to vaccine, says US FDA

There is no evidence supporting a causal relationship between the Bell's palsy cases and the injection of the vaccine



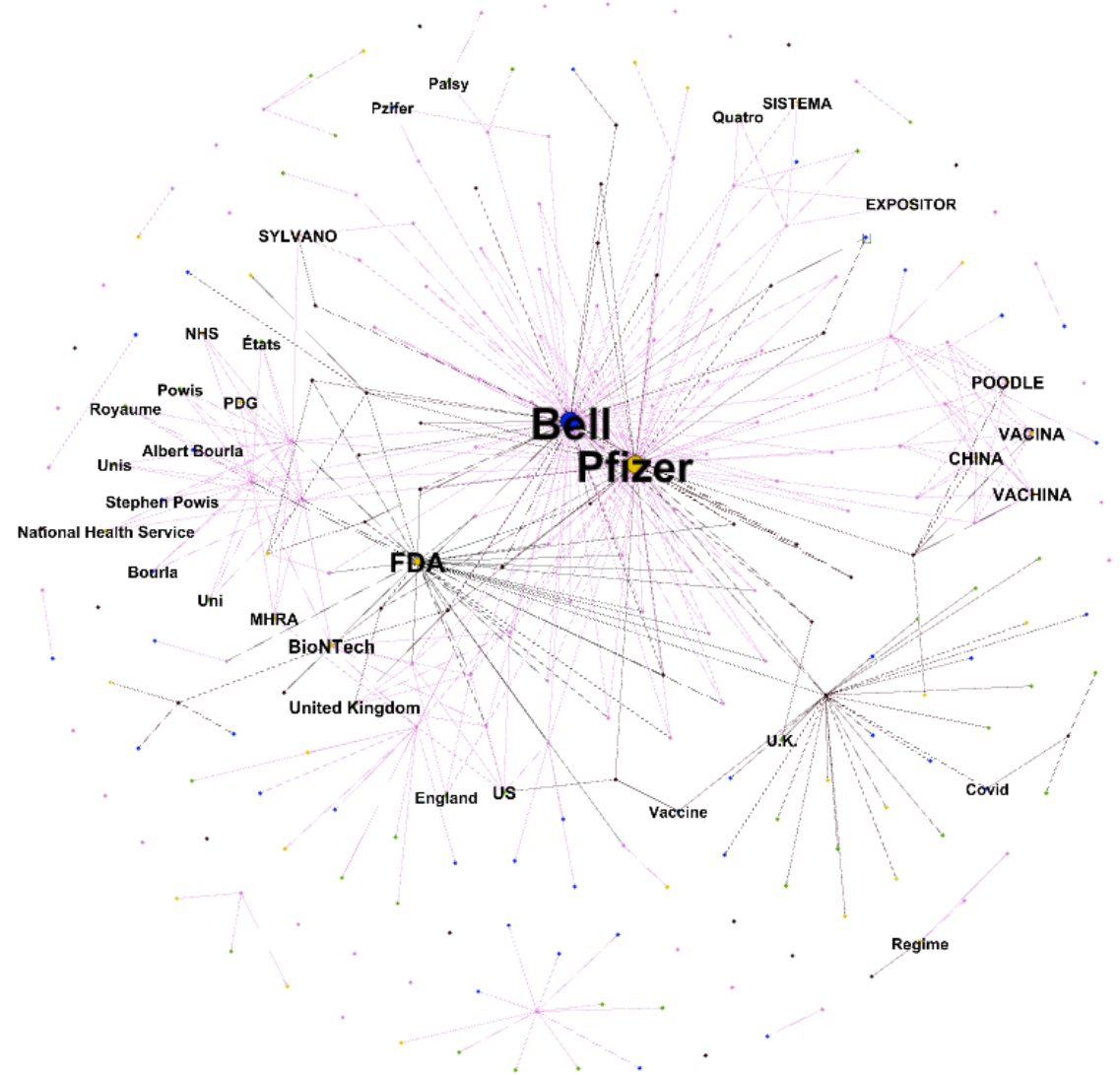
As the United Kingdom started inoculating people with the coronavirus vaccine developed by Pfizer-BioNTech, four volunteers who were administered the vaccine in the trial stage developed Bell's palsy, according to US Food and Drug Administration (FDA) regulators. Bell's palsy is a form of temporary facial paralysis.

According to healthfeedback.org, "four cases in the vaccine group do not represent a frequency above that expected in the general population."

# Facebook posts sharing and commenting on this news story



# Two-mode Semantic Network connecting Actor Nodes to Semantic Nodes





My Datasets

Shared With Me

Total records in the account: 15.1 million / 10M

100%

Dataset Name	Number of Records	Toxicity Analysis	Network Analysis	Download Dataset	Collaborators	Delete
COVID-19: Bell's palsy in four Pfizer volunteers not due to vaccine, says US FDA facebook : <a href="https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html">https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html</a>	151					

## Network Analysis

**i** This module automatically creates a two-mode semantic network from your CrowdTangle (FB or IG) dataset. If you are new to Social network Analysis (SNA), check out [this tutorial](#) to learn more about how two-mode semantic networks are built and how to analyze them.

Start by selecting the desired network type, then click on the "Generate Network"

- Reply-To Network (not available for this dataset type)
- Two-Mode Semantic Network ([learn more](#))

↓ Generate Network

# Network Analysis

! This step automatically creates a 'who replies to whom' communication network from your Twitter dataset. If you are new to Social Network Analysis (SNA), check out [this SNA primer](#) to learn the fundamentals of Network Analysis.

28%

Check progress in **29** sec

Network generation in progress! The completion time depends on the network size and may take up to few hours for large networks. Feel free to close the window and come back later.

## Network Analysis

**i** This module automatically creates a two-mode semantic network from your CrowdTangle (FB or IG) dataset. If you are new to Social network Analysis (SNA), check out [this tutorial](#) to learn more about how two-mode semantic networks are built and how to analyze them.



Visualize  
Network



Download Network  
(GraphML)



Download Network  
(Gephi)



Reset  
Network File

# **Two-Mode Semantic Network Visualizer in Communalytic**



## Network Analysis

**i** This module automatically creates a two-mode semantic network from your CrowdTangle (FB or IG) dataset. If you are new to Social network Analysis (SNA), check out [this tutorial](#) to learn more about how two-mode semantic networks are built and how to analyze them.



← Back to My Datasets

## Overview

Dataset Name: **COVID-19: Bell's palsy in four Pfizer volunteers not due to vaccine, says US FDA**

Platform: **facebook**

Search Criteria: <https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html>

Collection started: **2020-12-01 00:00**

Collection before: **2020-12-11 21:34**

Records: **151**

🕒 Posts Per Day

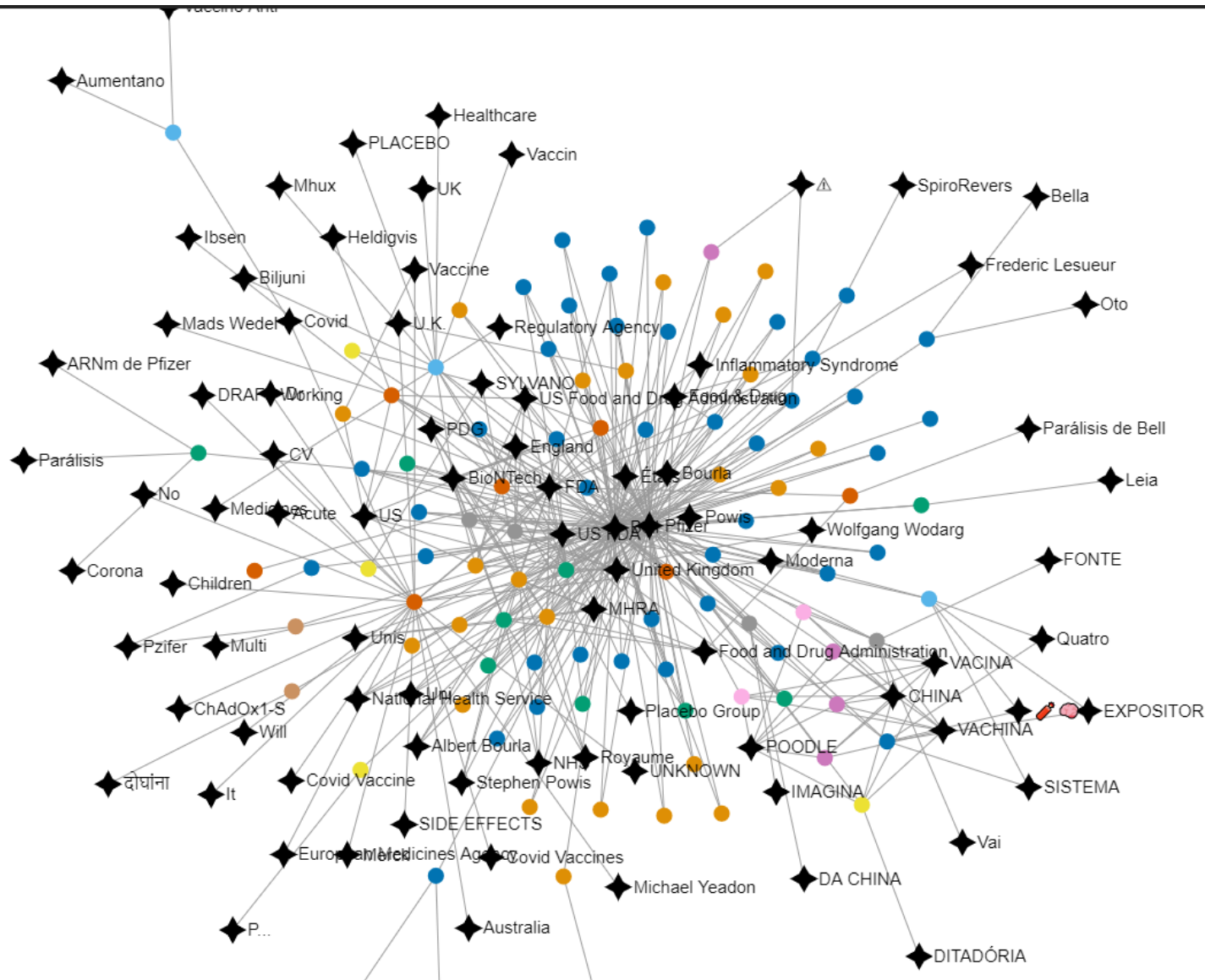
☁ Word Cloud

👉 Emoji Cloud

📄 Top Ten Posters

📊 Toxicity Analysis

🌟 Network Analysis



### Network Properties

This is a two-mode semantic network ([learn more](#)).

- Actor Nodes: ? 144
- ◆ Semantic Nodes: ? 115
- Edges: ? 418

---

Network Layout

---

Node and Edge Filters

---

Posts ?

← Back to My Datasets

## Overview

Dataset Name: **COVID-19: Bell's palsy in four Pfizer volunteers not due to vaccine, says US FDA**

Platform: **facebook**

Search Criteria: <https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html>

Collection started: **2020-12-01 00:00**

Collection before: **2020-12-11 21:34**

Records: **151**

○ Posts Per Day

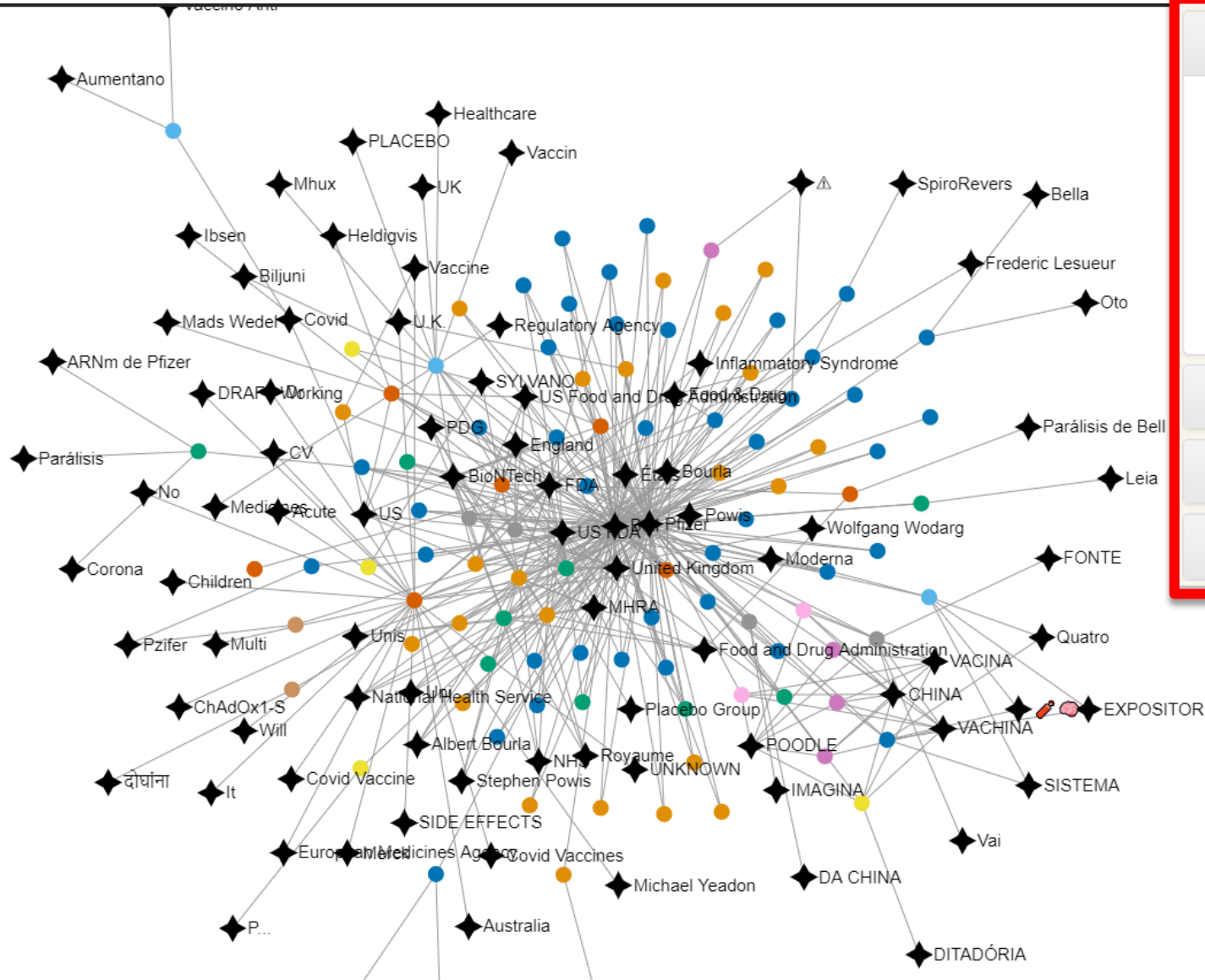
☁ Word Cloud

😊 Emoji Cloud

📄 Top Ten Posters




📊 Toxicity Analysis

🌐 Network Analysis



## Network Properties

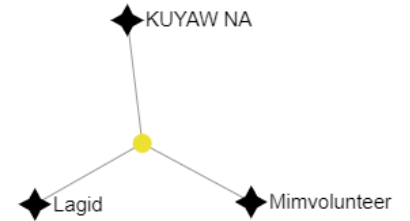
This is a two-mode semantic network ([learn more](#)).

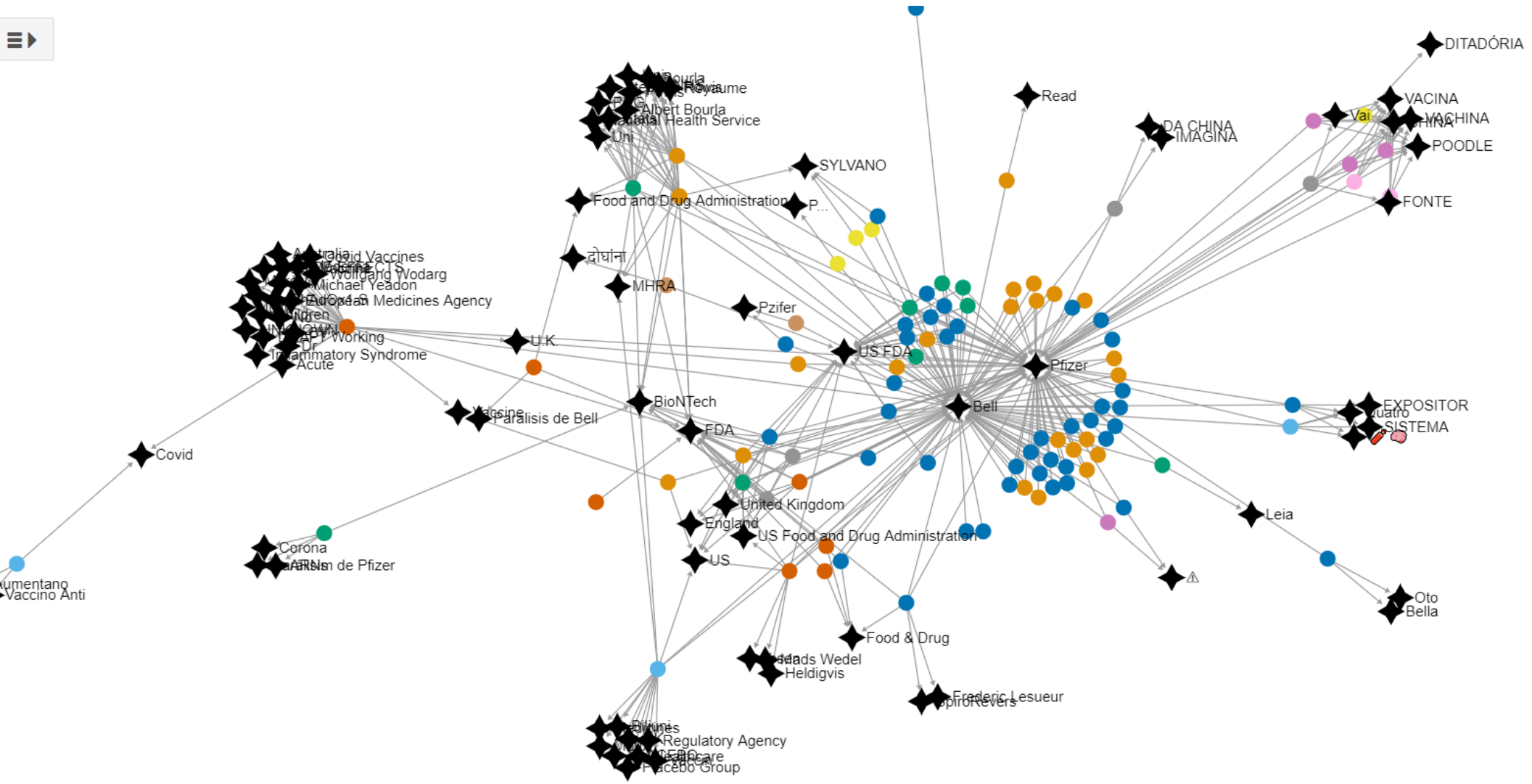
 Actor Nodes: ?	144
 Semantic Nodes: ?	115
 Edges: ?	418

## Network Layout

## Node and Edge Filters

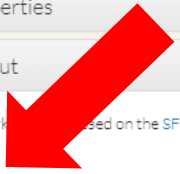
Posts ?





Network Properties

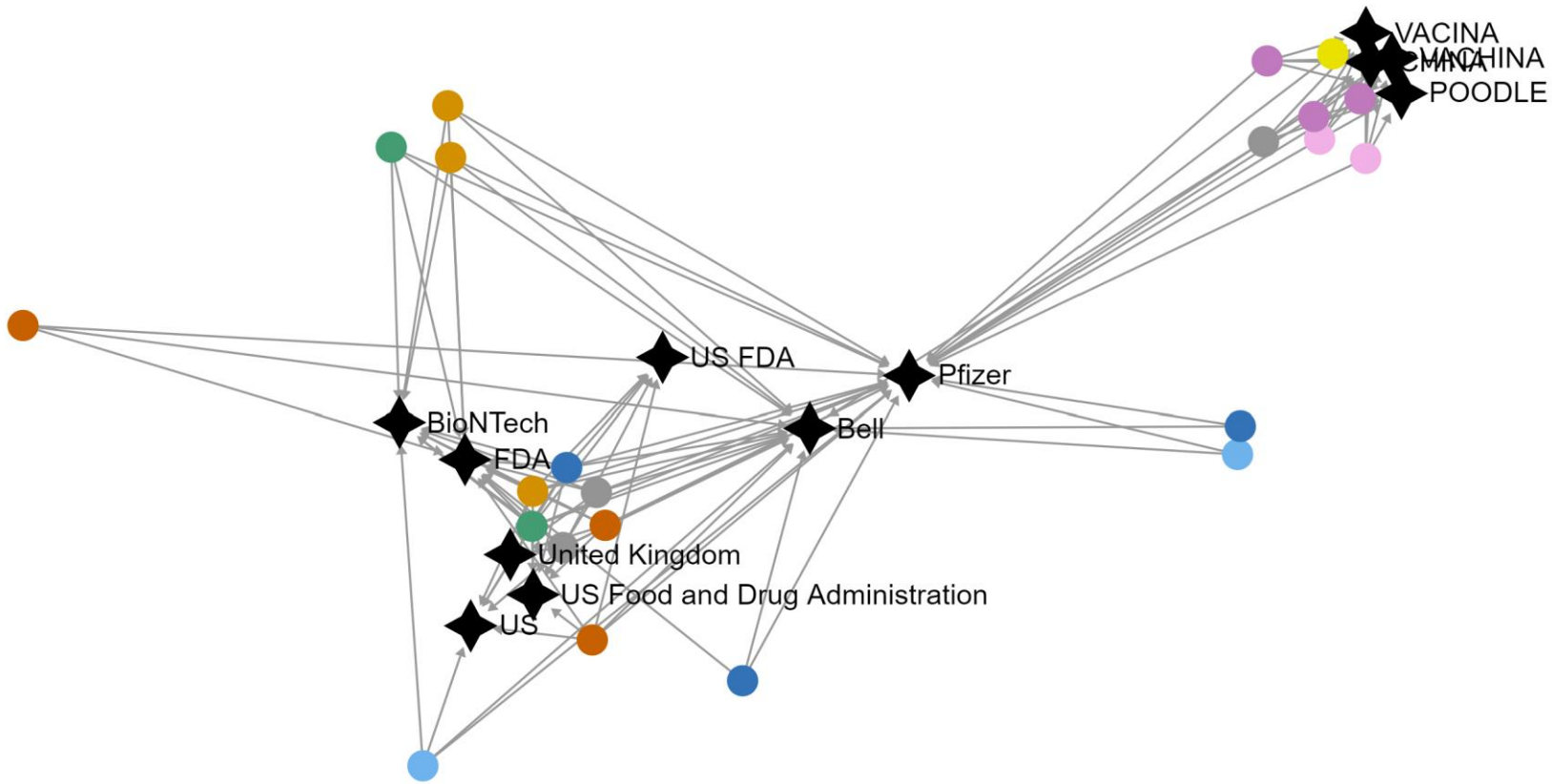
Network Layout

The default network layout is based on the SFDP algorithm. 

Run for 3 sec Stop Reset

Node and Edge Filters

Posts ?



Network Properties

Network Layout

Node and Edge Filters (Applied)

**Community Clusters** ( $\geq 10$  nodes)

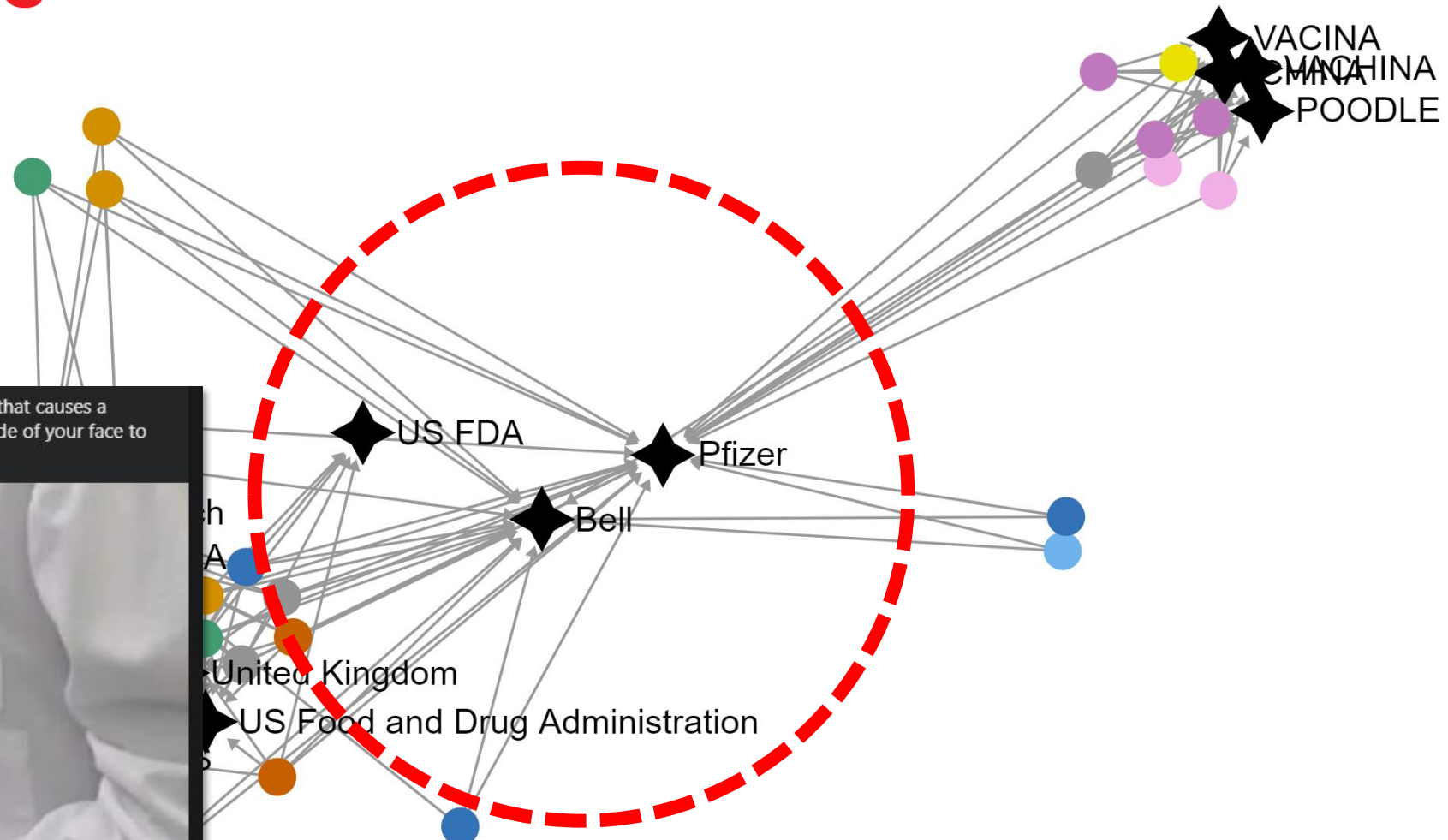
All nodes

**Min Degree:** 5

**Min Toxicity:** 0

Posts



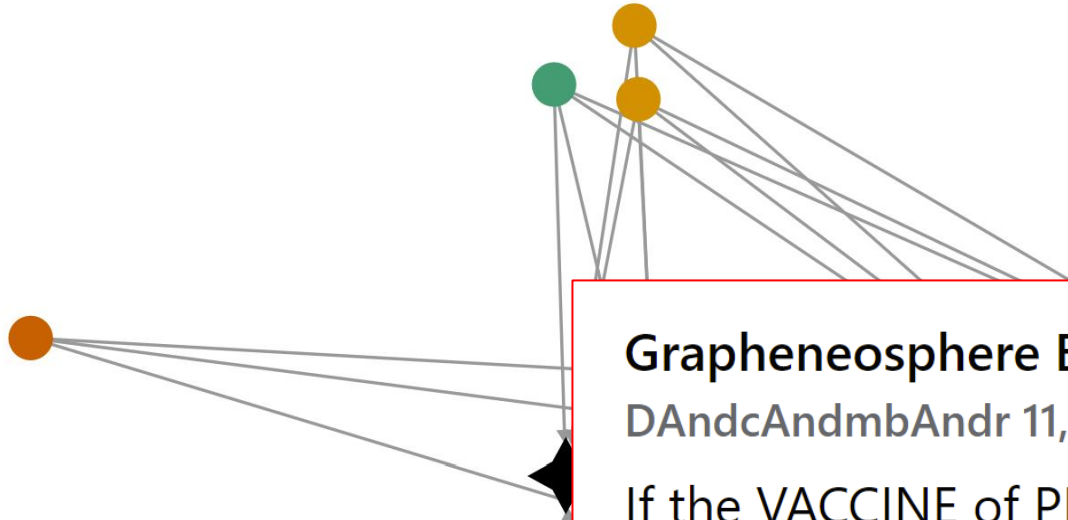
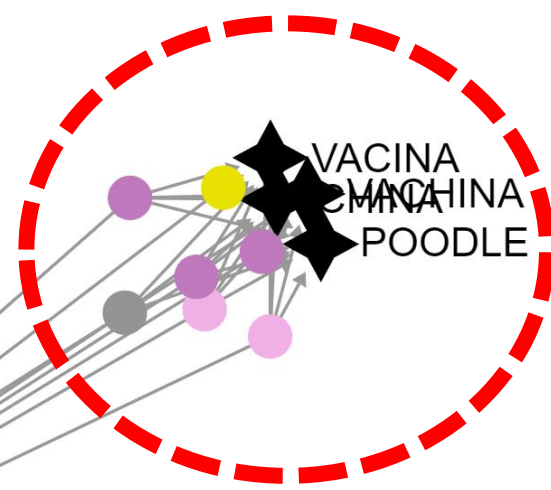


Four Pfizer vaccine volunteers develop Bell's palsy... Bell's palsy is a condition that causes a weakness or paralysis of the muscles in the face... The condition causes one side of your face to droop or become stiff.



ZEENEWS.INDIA.COM  
**COVID-19: Four Pfizer vaccine volunteers develop Bell's palsy - Read details here**  
The US FDA regulators, however, noted that it was still unclear how Bell's palsy was caused in t...

3 5 Comments 1 Share Seen by 24



### Grapheneosphere Brazil

DAndcAndmbAndr 11, 2020 · 🌐

If the VACCINE of PFIZER, a reputable pharmaceutical giant, is already GIVING BAD, imagine CORONAVAC, the VACHINA of THE POODLE OF CHINA, alias DitaDÓRIA. 🤔



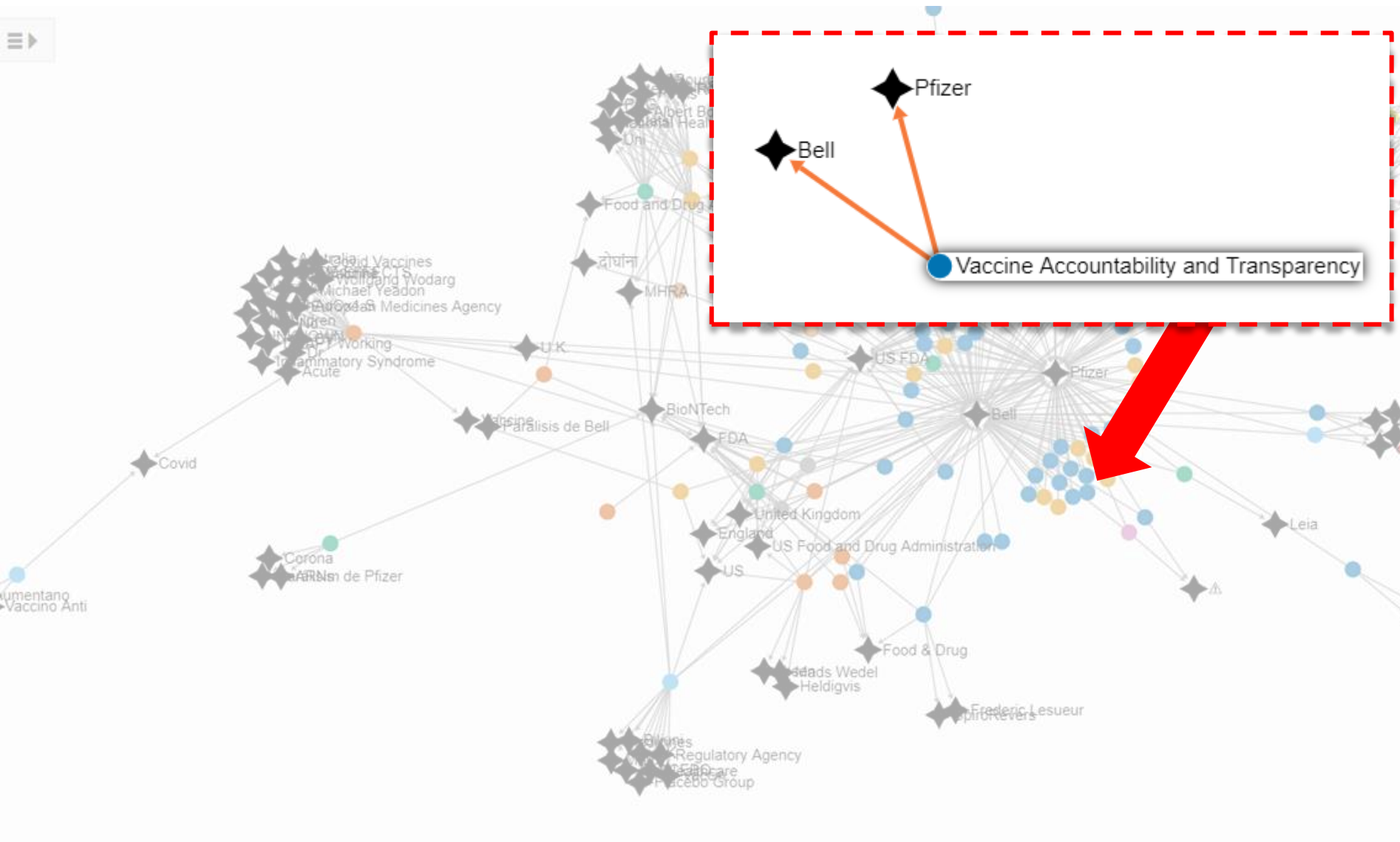
Sources: 👉 ⚠️

<https://zeenews.india.com/.../covid-19-four-pfizer...>

<https://noticias.r7.com/.../reino-unido-emite-alerta-apos...>

#ThePunisher. 🦴 🛡️ 🇧🇷 😎 👊

(auto-translated)



Network Properties

Network Layout

Node and Edge Filters

Posts ?

When you click on a node, only node(s) that are directly connected to the selected node are shown. (To undo the selection, click on an empty space in the network visualization.)

From 2

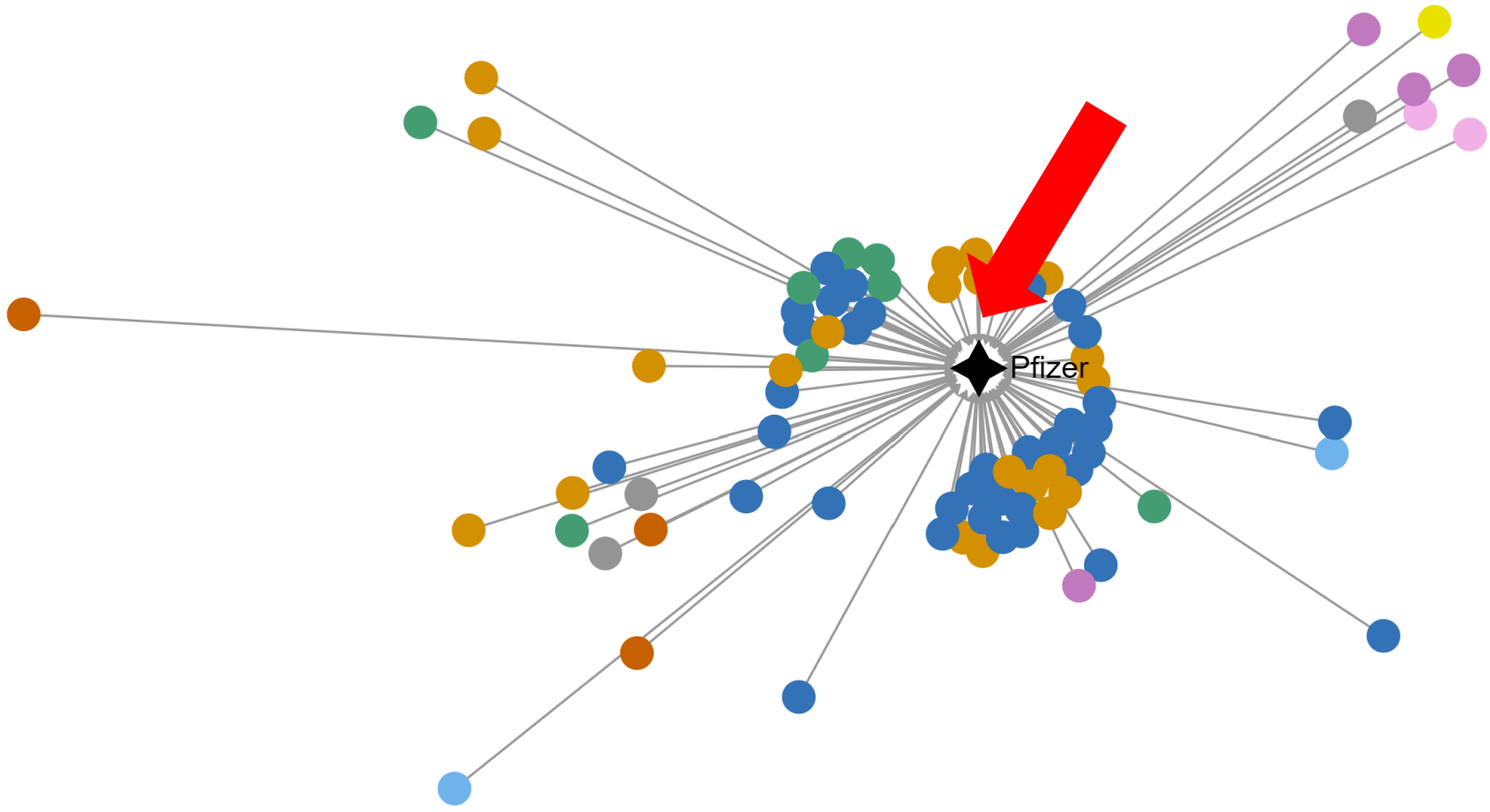
To 0

The following are posts from **Vaccine Accountability and Transparency**:

**Mentions: Pfizer**  
Four Pfizer vaccine volunteers develop Bell's palsy... Bell's palsy is a condition that causes a weakness or paralysis of the muscles in the face... The condition causes one side of your face to droop or become stiff.  
<https://zeenews.india.com/world/covid-19-four-pfizer-vaccine-volunteers-develop-bells-palsy-read-details-here-2329924.html>

**Mentions: Bell**  
Four Pfizer vaccine volunteers develop Bell's palsy... Bell's palsy is a condition that causes a weakness or paralysis of





Network Properties

Network Layout

Node and Edge Filters

Posts ?

When you click on a node, only node(s) that are directly connected to the selected node are shown. (To undo the selection, click on an empty space in the network visualization.)

From 0 To 81



➤ **From: Coronavirus News Malta**  
# \*\*\*"Ma Jimpurthax Jekk Xi Numru Ta' Nies Jizviluppaw Mard Serju Bil-Vaccin !!!!!"\*\*\* \*\*Mhux ovgja, jafu jwaqqfu qlieh ta' Biljuni ghax il-Vaccin tikkawza xi mard serju jew mhux f'ammont ta' nies li jkunu haduh. Il-fatt li hadd minn dawg li nghataw il-PLACEBO minflok il-vaccin ma zviluppa Face Paralysis, hija indikazzjoni li l-vaccin aktarx kawzaha

42

# Coronavirus News Malta

Public group · 1.2K members

About Discussion Members Events Media

 shared a link.  
December 14, 2020 · 

## "Ma Jimpurthax Jekk Xi Numru Ta' Nies Jizviluppaw Mard Serju Bil-Vaccin !!!!!"

Mhux ovsja, jafu jwaqqfu qlieh ta' Biljuni ghax il-Vaccin tikkawza xi mard serju jew mhux f'ammont ta' nies li jkunu haduh. Il-fatt li hadd minn dawg li nghataw il-PLACEBO minflok il-vaccin ma zviluppa Face Paralysis, hija indikazzjoni li l-vaccin aktarx kawzaha fuq dawg li hargitilhom.

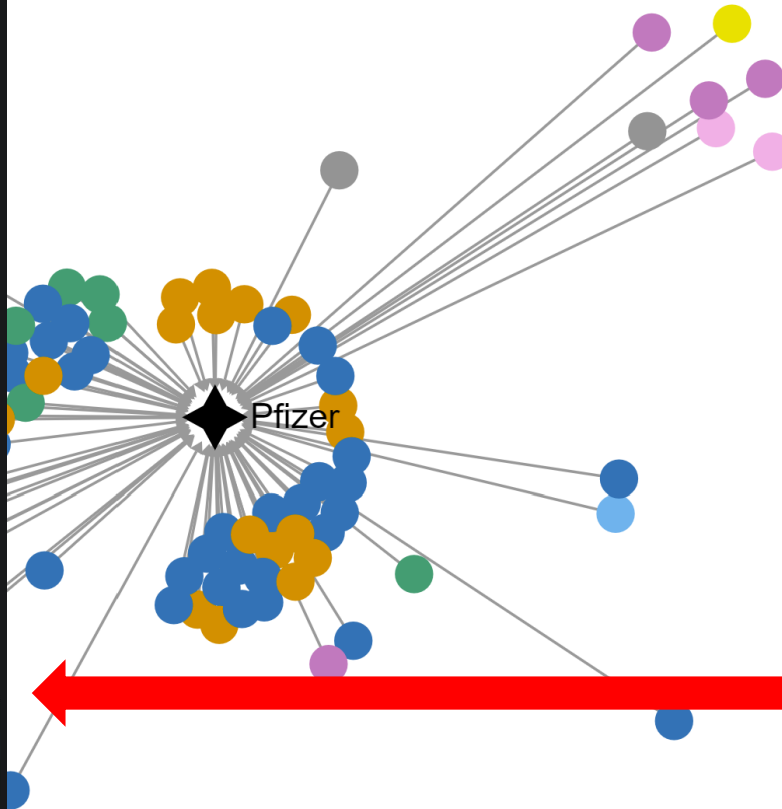
## COVID-19: UK regulator makes big claim after 4 Pfizer vaccine volunteers develop Bell's palsy in US

UK drug regulator has allayed fears of Bell's palsy being associated with corona virus vaccine developed by Pfizer.

UK drug regulator Medicines and Healthcare products Regulatory Agency (MHRA) has allayed fears of Bell's palsy being associated with coronavirus vaccine developed by Pfizer-BioNTech after 4 participants of a US trials suffered from the facial paralysis.

The vaccine has been developed by US-based pharmaceutical company Pfizer and German biotechnology company BioNTech.

According To Reports, 4 Out Of 21,720 Participants In The US Suffered Bell's Palsy After receiving Pfizer Vaccine But None Out Of The 21,728 Subjects Faced Any Problem In Placebo Group.



Network Properties

Network Layout

Node and Edge Filters

Posts ?

When you click on a node, only node(s) that are directly connected to the selected node are shown. (To undo the selection, click on an empty space in the network visualization.)

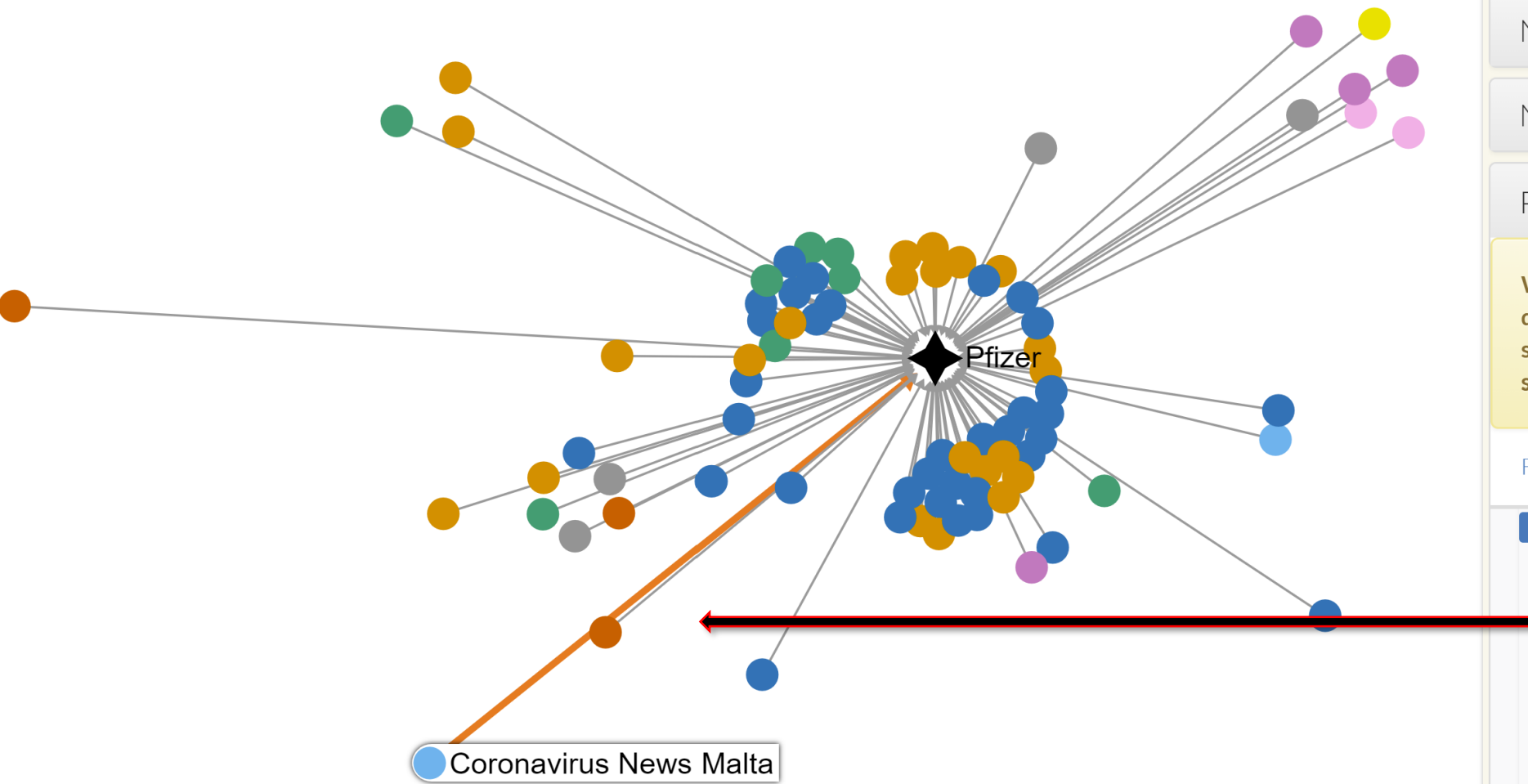
From 0

To 81



From: Coronavirus News Malta

#\*\*"Ma Jimpurthax Jekk Xi Numru Ta' Nies Jizviluppaw Mard Serju Bil-Vaccin !!!!!"\*\*\* \*\*Mhux ovsja, jafu jwaqqfu qlieh ta' Biljuni ghax il-Vaccin tikkawza xi mard serju jew mhux f'ammont ta' nies li jkunu haduh. Il-fatt li hadd minn dawg li nghataw il-PLACEBO minflok il-vaccin ma zviluppa Face Paralysis, hija indikazzjoni li l-vaccin aktarx kawzaha



Network Properties

Network Layout

Node and Edge Filters

Posts ?

When you click on a node, only node(s) that are directly connected to the selected node are shown. (To undo the selection, click on an empty space in the network visualization.)

From 0 To 81

From: Coronavirus News Malta  
# \*\*"Ma Jimpurthax Jekk Xi Numru Ta' Nies Jizviluppaw Mard Serju Bil-Vaccin !!!!"\*\* \*\*Mhux ovsja, jafu jwaqqfu qlieh ta' Biljuni ghax il-Vaccin tikkawza xi mard serju jew mhux f'ammont ta' nies li jkunu haduh. Il-fatt li hadd minn dawg li nghataw il-PLACEBO minflok il-vaccin ma zviluppa Face Paralysis, hija indikazzjoni li l-vaccin aktarx kawzaha

44



# **Two-Mode Semantic Network Visualizer in Gephi**

## Network Analysis



**i** This module automatically creates a two-mode semantic network from your CrowdTangle (FB or IG) dataset. If you are new to Social network Analysis (SNA), check out [this tutorial](#) to learn more about how two-mode semantic networks are built and how to analyze them.






Gephi 0.9.2 - Project 1

File Workspace View Tools Window Help

-  New Project Ctrl+Shift+N
- Open... Ctrl+O
- Open Recent... >
- Close Project
-  Properties...

---

- Import spreadsheet...
- Import Database >
- Import...
- Generate >
-  Save Ctrl+S
- Save As...

---

- Export >

---

- Exit

laboratory



Gephi 0.9.2 - Project 1

File Workspace View Tools Window Help

Overview Data Laboratory Preview

Workspace 1

Appearance Layout

ForceAtlas 2

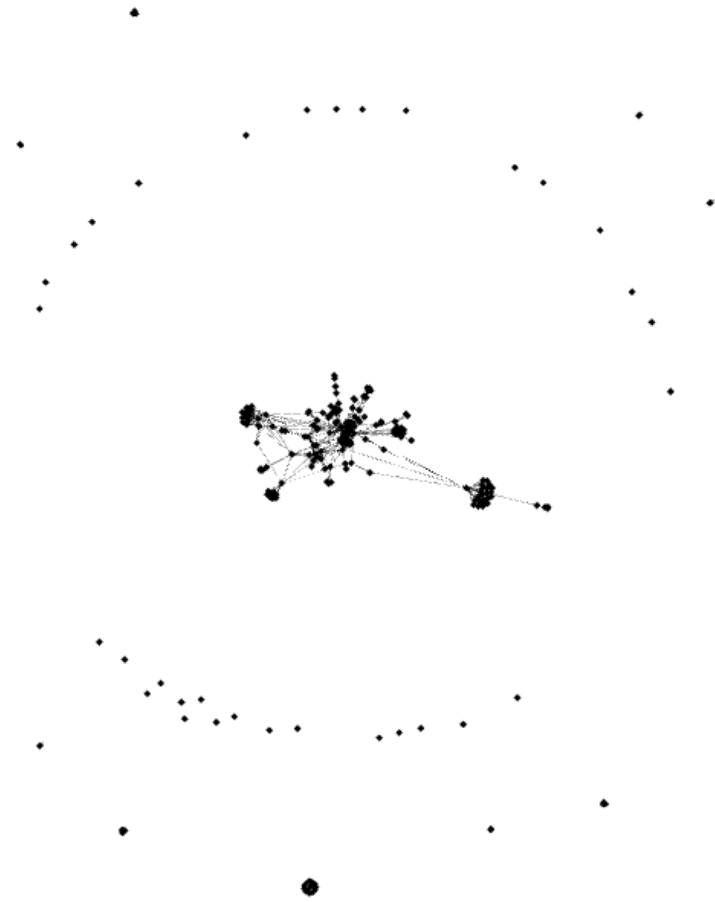
Run

Threads	
Threads number	7
Performance	
Tolerance (speed)	1.0
Approximate Repulsion	<input type="checkbox"/>
Approximation	1.2
Tuning	
Scaling	2.0
Stronger Gravity	<input type="checkbox"/>
Gravity	1.0
Behavior Alternatives	
Dissuade Hubs	<input type="checkbox"/>
LinLog mode	<input type="checkbox"/>
Prevent Overlap	<input type="checkbox"/>
Edge Weight Influence	1.0

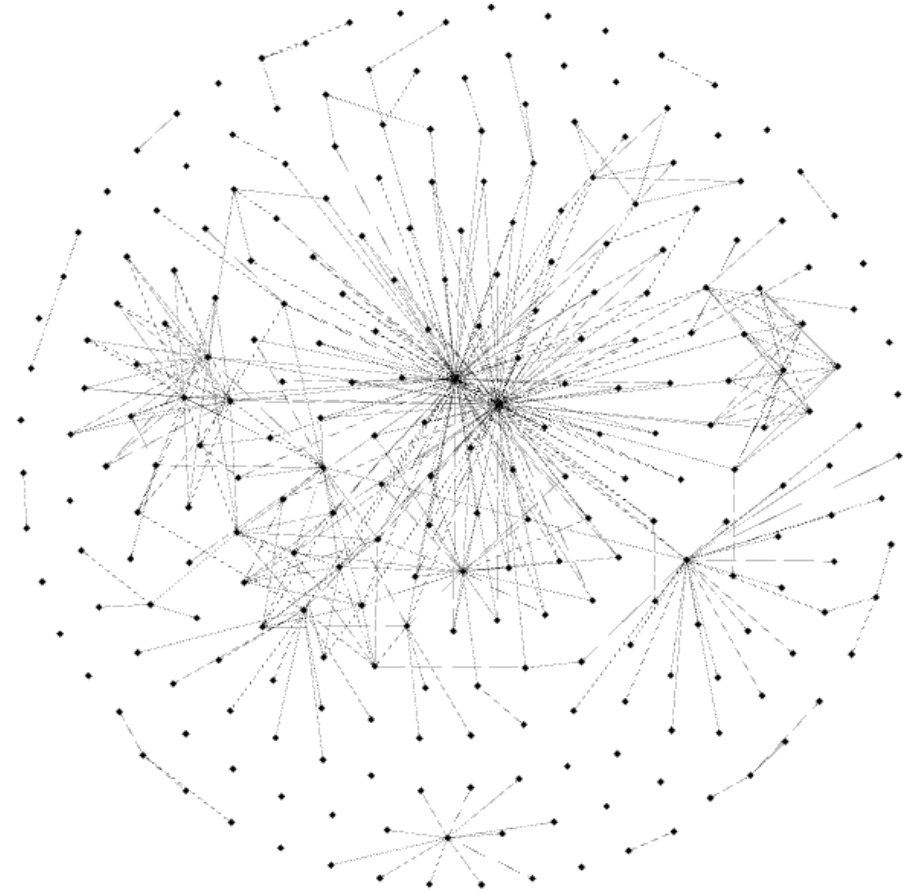
Graph

Dragging (Configure)

A network graph visualization showing a cluster of nodes and edges on the left side of the graph area, and several isolated nodes scattered on the right side. The nodes are represented as black circles of varying sizes, and the edges are thin black lines connecting the nodes.



**ForceAtlas 2 Layout**



**Fruchterman Reingold Layout**





Appearance × Layout

Nodes Edges

Unique Ranking

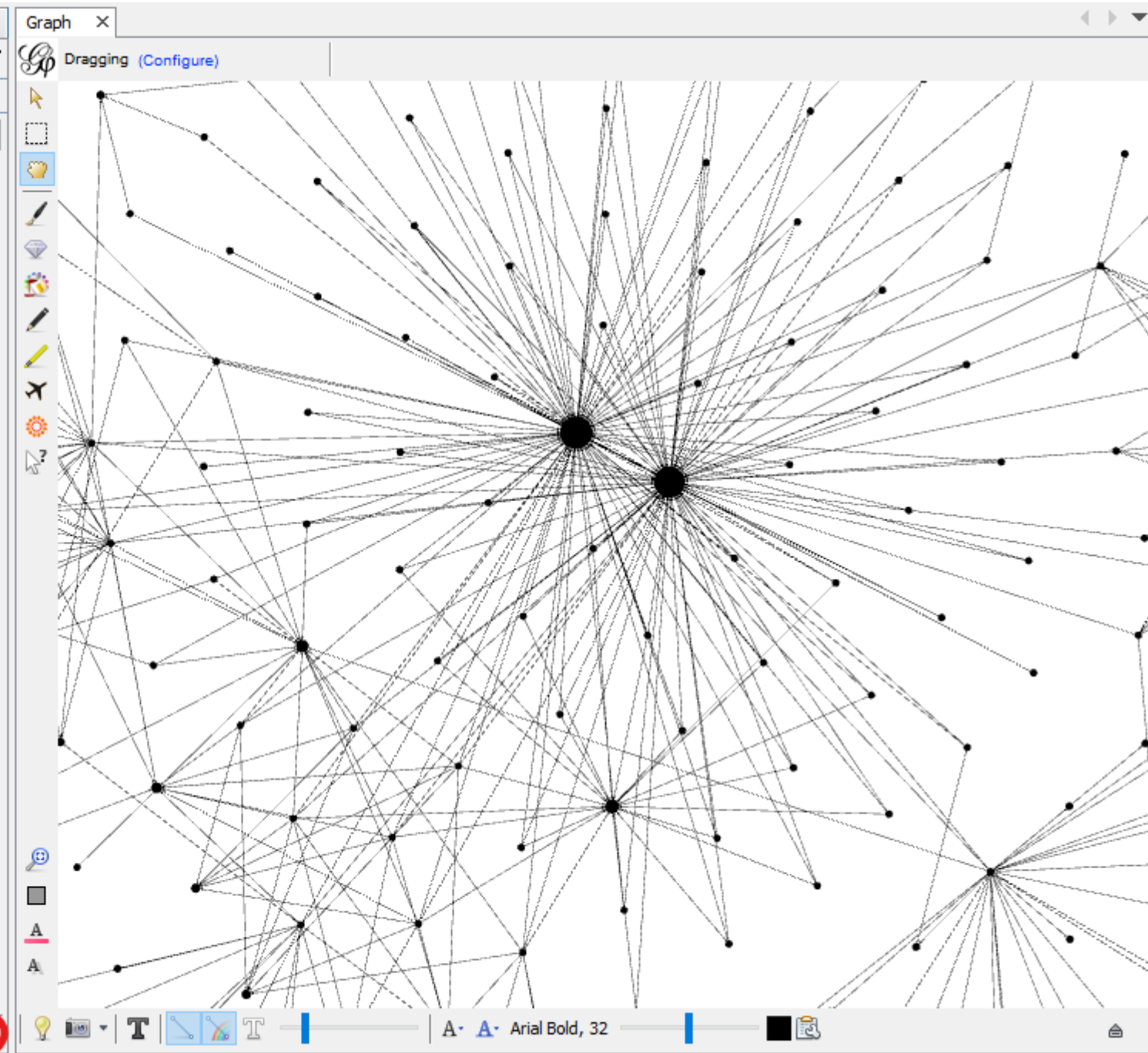
In-Degree

Min size: 5 Max size: 22

Spline...

Apply

The left sidebar of the Gephi interface. It contains tabs for 'Appearance' and 'Layout'. Under 'Appearance', there are sub-tabs for 'Nodes' and 'Edges'. The 'Ranking' sub-tab is selected and highlighted in red. Under 'Ranking', the 'In-Degree' ranking method is selected. Below this, there are two input fields: 'Min size' set to 5 and 'Max size' set to 22. At the bottom of the sidebar, there is a text input field labeled 'Spline...' and a red circle around the 'Apply' button.





Appearance × Layout

Nodes Edges

Unique Ranking

subscriberCount

Min size: 5 Max size: 22

Spline...

Apply

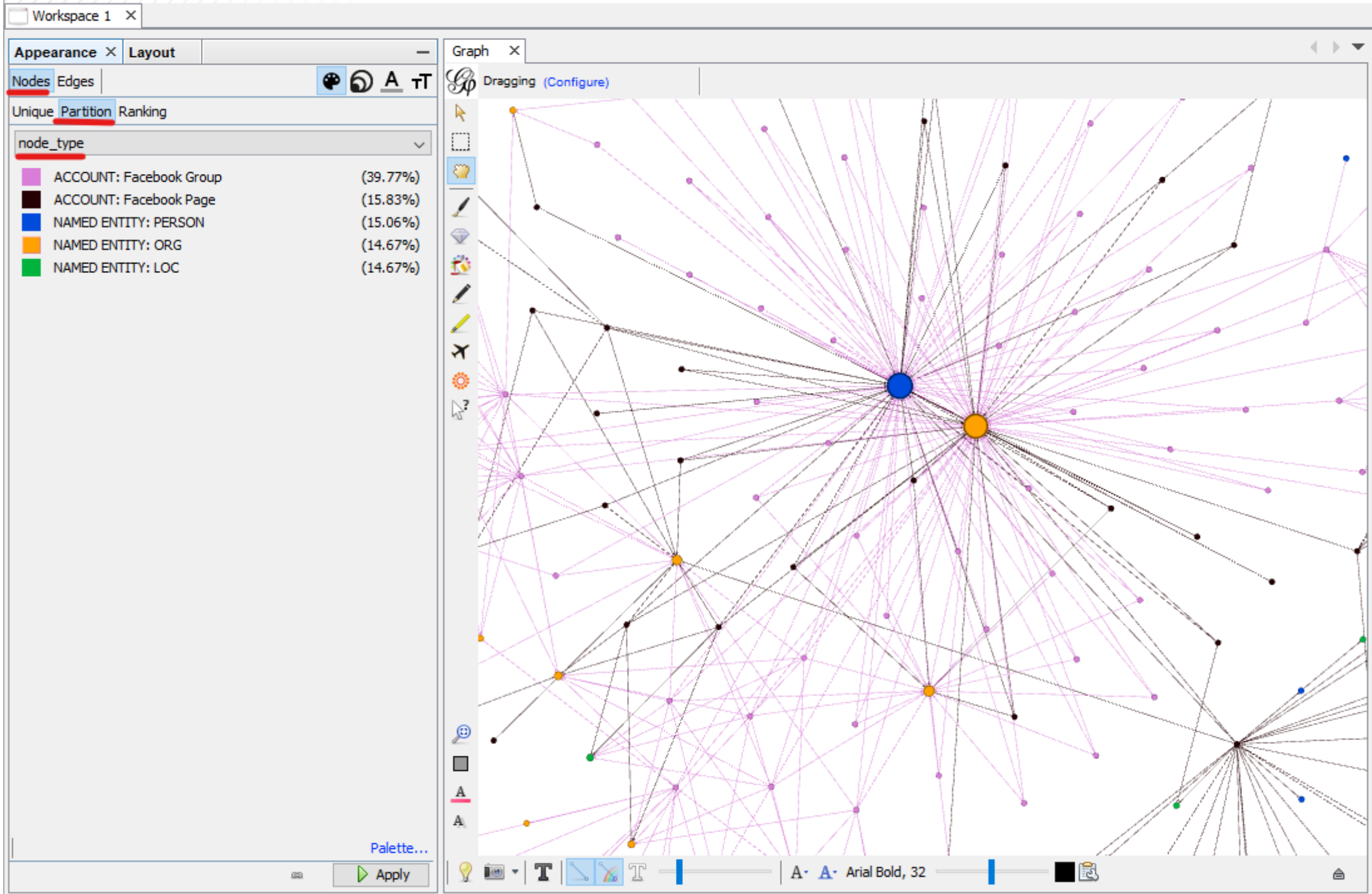
Graph ×

Dragging (Configure)

A network graph visualization showing a dense web of nodes and edges. The nodes are represented by small black circles, and the edges are thin black lines. The graph is highly interconnected, with many nodes having multiple connections. A prominent feature is a large, dark, circular node in the lower-left quadrant, which is significantly larger than the other nodes, indicating a high 'subscriberCount'. The overall structure is complex and radial, with many nodes radiating from central hubs.

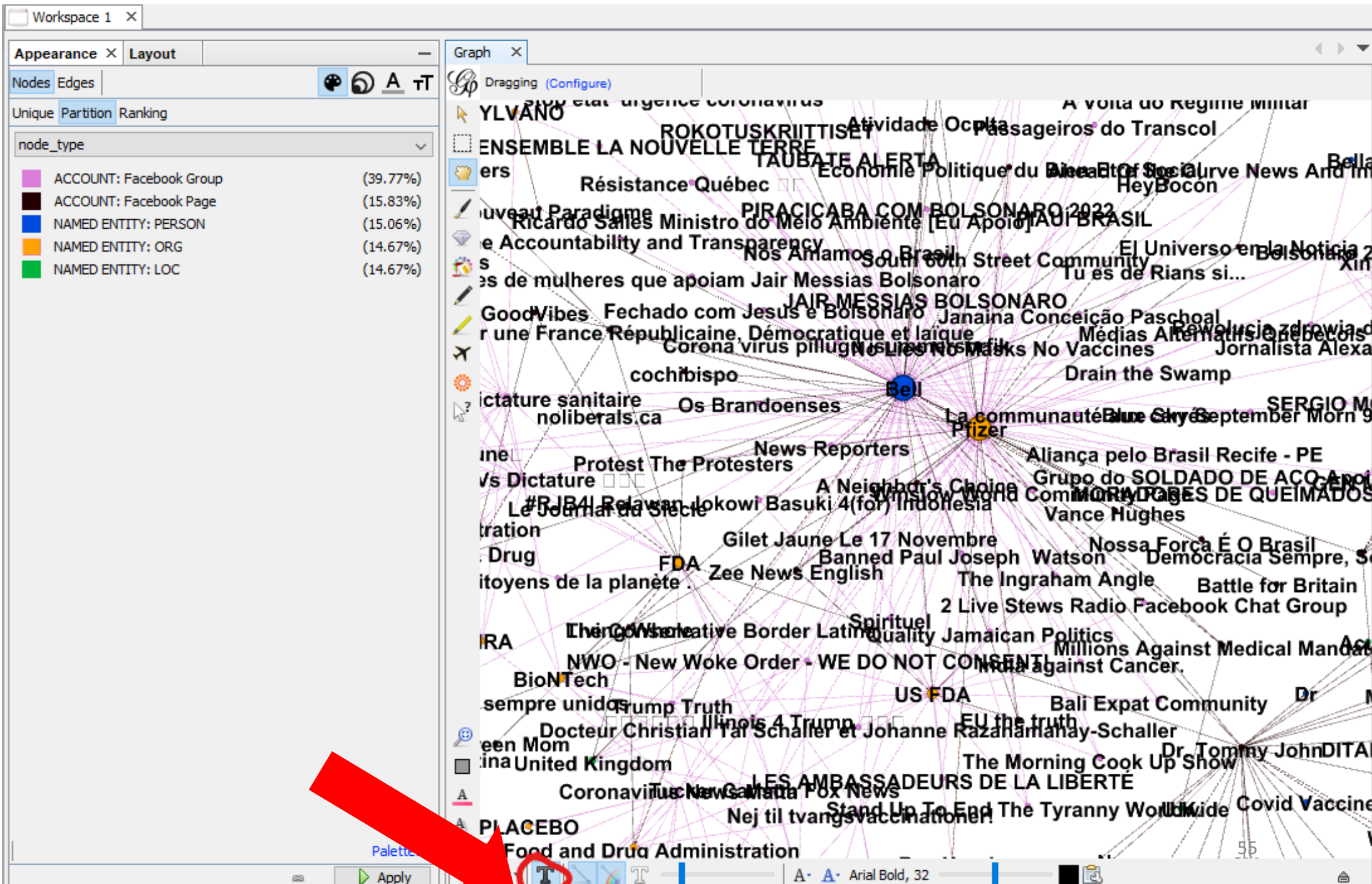
Apply

A Arial Bold, 32





Gephi





Workspace 1

Appearance × Layout

Nodes Edges

Unique Ranking

In-Degree

Min size: 0.5 Max size: 3

Graph ×

Dragging (Configure)

SYLVANO

CREONS ENSEMBLE LA NOUVELLE TERRE

Rokotuskriittiset

Atividade Oculta

Passageiros do Transcol

Resistance Québec

TAUBATE ALERTA

Economie Politique du Bien-Etre Social

Ahead Of the Curve News And Information

Le Nouveau Paradigme

Ricardo Salles Ministro do Meio Ambiente [Eu Apoio]

PIRACICABA COM BOLSONARO 2022

PIAUI BRASIL

Vaccine Accountability and Transparency

Nós Amamos o Brasil

South 60th Street Community

Tu es de Rians si...

2 milhões de mulheres que apoiam Jair Messias Bolsonaro

JAIR MESSIAS BOLSONARO

Janaina Conceição Paschoal

El Universo en la Noticia

Goornivas

Fechado com Jesus e Bolsonaro

Corona virus pillou isummerisdrifk No Liss No Masks No Vaccines

Médias Alternativas Quabecois

Macron Pour une France Republicaine, Démocratique et laïque

cochabamba

Os Brandoenses

News Reporters

Drain the Swamp

dictature sanitaire

Protest The Protesters

A Neighbor's Choice

Winslow World Community Page

La communauté aux carrés

Blue Sky September Morn 9/11

Journalista At

dictature Vs Dictature

WRJ B41 Relawan Jokowi Basuki 4for Indonesia

Gilist Jaune Le 17 Novembre

Banned Paul Joseph Watson

Allança pelo Bfasiil Raclfe - PE

MORADORES DE QUEIMADOS PSM RIO

Le Journal du Siècle

Zee News English

Spirituel

Quality Jamaican Politics

Vance Hughes

IRA

Living While Conservative Border Latina

MWO - New Woke Order - WE DO NOT CONSENT!

India against Cancer

Millions Against Medical Mandates

Drug

Les citoyens de la planète

Trump Truth

Dr. Tommy John

DITA

US FDA

US FDA

US FDA

United Kingdom

Coronavirus News Outlier Carlson Fox News

LES AMBASSADEURS DE LA LIBERTÉ

Stand Up To End The Tyranny Worldwide

UK

Covid Vaccine

PLACEBO

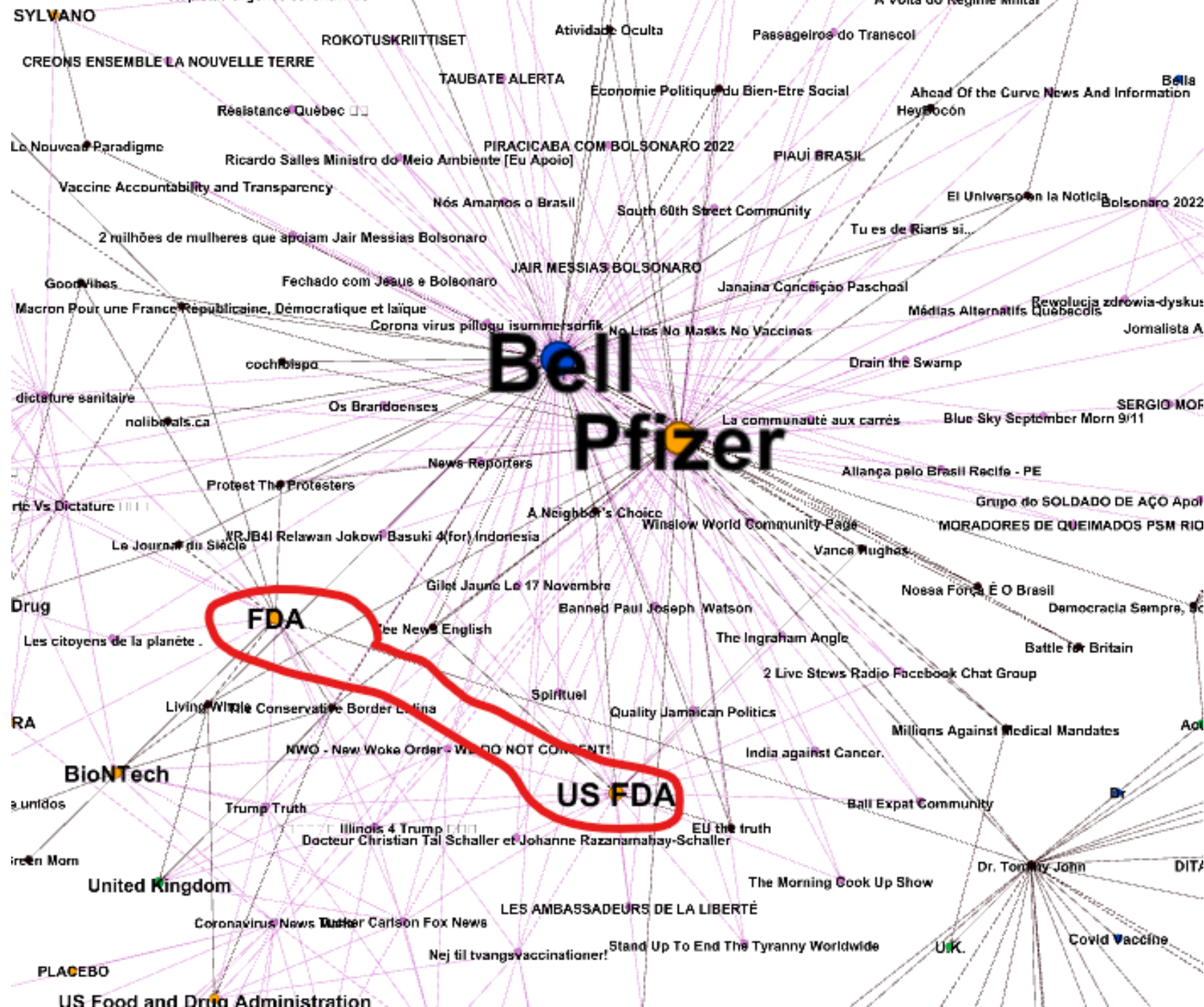
US Food and Drug Administration

Apply

Spline...

Arial Bold, 32

56





Overview | **Data Laboratory** | Preview

Workspace 1

Data Table

Nodes | Edges | Configuration | Add node | Add edge | Search/Replace | Import Spreadsheet | Export table | More actions | Filter: FDA | Label

Id	Label	Interval	subscr...	accountId	userna...	node_type
3	FDA					NAMED ENTITY: ORG
58	US FDA					NAMED ENTITY: ORG



Overview | Data Laboratory | Preview

Workspace 1

Data Table

Nodes | Edges | Configuration | Add node | Add edge | Search/Replace | Import Spreadsheet | Export table | More actions | Filter: FDA | Food and Drug Admin | Label

Id	Label	Interval	subscr...	accountId	userna...	node_type
3	FDA					NAMED ENTITY: ORG
6	Food and Drug Administration					NAMED ENTITY: ORG
58	US FDA					NAMED ENTITY: ORG
104	US Food and Drug Administration					NAMED ENTITY: ORG



Id	Label	Interval	subscr...	accountId	userna...	node_type
3	FDA					NAMED ENTITY: ORG
6	Food and Drug Administration					NAMED ENTITY: ORG
58	US FDA					NAMED ENTITY: ORG
104	US Food and Drug Administration					NAMED ENTITY: ORG

- Edit all nodes
- Select on Overview
- Select neighbour nodes on table
- Select related edges
- Delete all
- Move to... >
- Copy to... >
- Clear all...
- Overwrite data to the other selected nodes...
- Settle all
- Free all
- Set all nodes size...
- Merge nodes...
- Link to nodes...
- Duplicate all
- Cell >



Id	Label
3	FDA
6	Food and Drug Administration
58	US FDA
104	US Food and Drug Administration

### Merge nodes...



One new node with the same color, size and position of the main selected node is created.  
Edges are assigned to the new node.  
Each column uses the given strategy to reduce the rows values to one value.

Delete merged nodes

Main selected row:

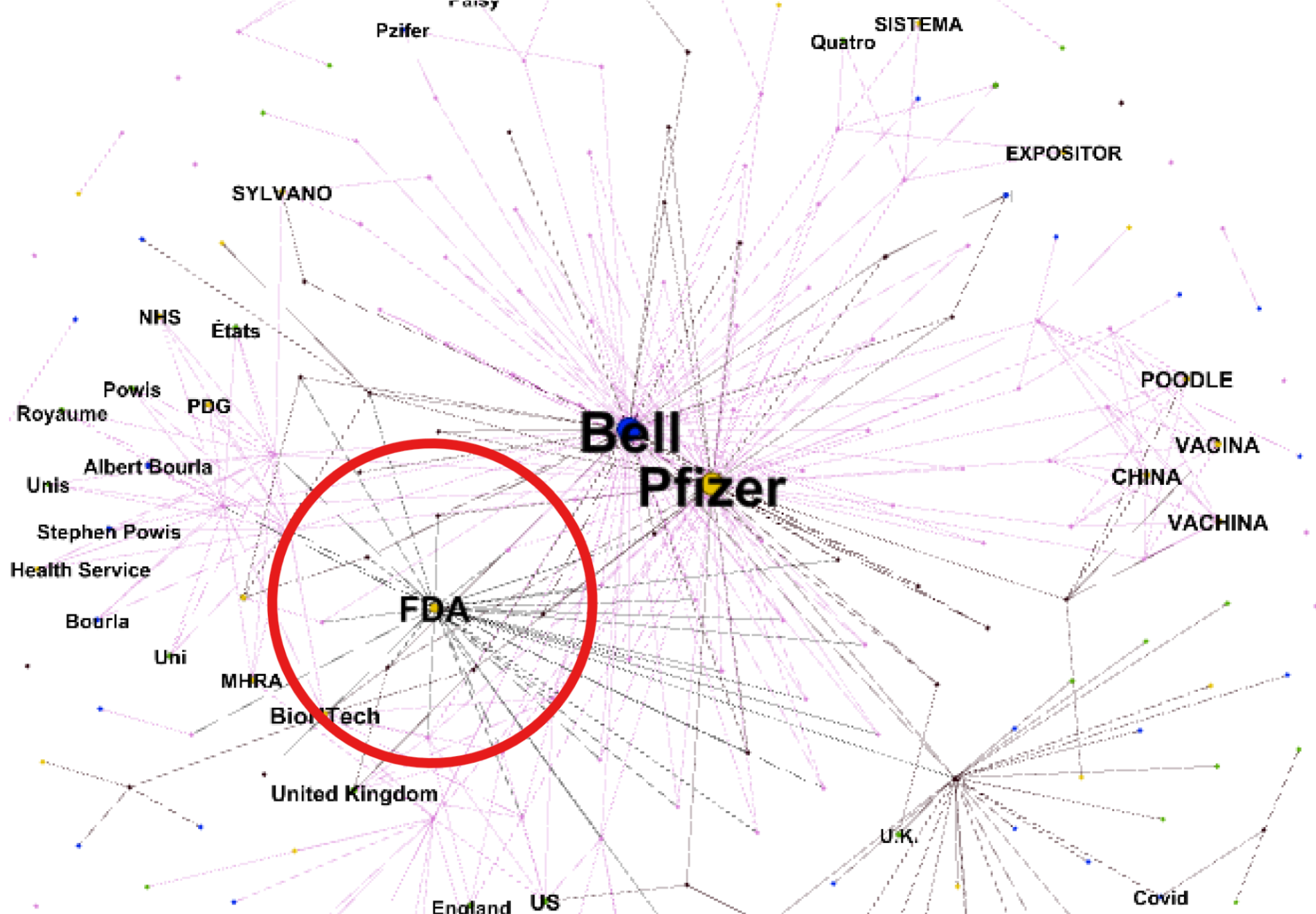
- 3 - FDA
- 3 - FDA**
- 6 - Food and Drug Administration
- 58 - US FDA
- 104 - US Food and Drug Administration

Interval:

  Keep main selected row value

subscriberCount:

Ok Cancel





Filters	Statistics	×
Settings		
▾ Network Overview		
Average Degree	1.57	Run
Avg. Weighted Degree		Run
Network Diameter		Run
Graph Density		Run
HITS		Run
Modularity	0.57	Run
Clustering Coefficient		Run
PageRank		Run
Connected Components		Run
Girvan-Newman Clustering		Run
Leiden algorithm		Run



Gephi 0.9.2 - pfizer bell side-effect.gephi

File Workspace View Tools Window Help

Overview Data Laboratory Preview

Workspace 1

Data Table

Nodes Edges Configuration Add node Add edge Search/Replace Import Spreadsheet Export table More actions

Filter: Id

Id	Label	...	subscriberCount	accountId	username	node_type	In-Degree	Out-Degree	Degree	Modularity Class
9	Bell					NAMED ENTITY: PERSON	86	0	86	0
8	Pfizer					NAMED ENTITY: ORG	81	0	81	0
261	FDA					NAMED ENTITY: ORG	36	0	36	0
21	BioNTech					NAMED ENTITY: ORG	11	0	11	1

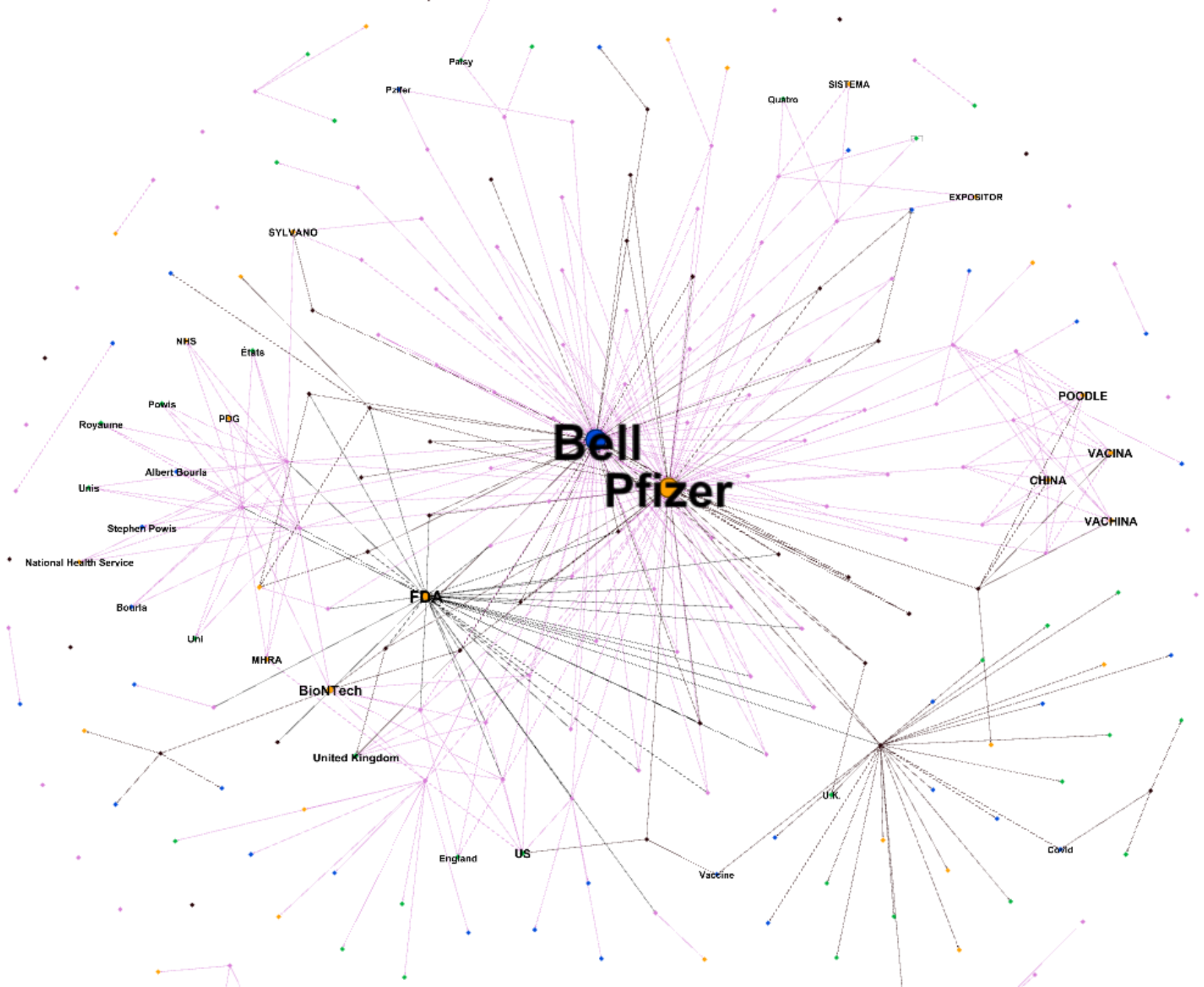


Id	Label	...	subscriberCount	accountId	username	node_type
9	Bell					NAMED ENTITY: PERSON
8	Pfizer					NAMED ENTITY: ORG
261	FDA					NAMED ENTITY: ORG
21	BioNTech					NAMED ENTITY: ORG
16	US					NAMED ENTITY: LOC
53	VACINA					NAMED ENTITY: ORG
54	VACHINA					NAMED ENTITY: ORG
55	POODLE					NAMED ENTITY: ORG
56	CHINA					NAMED ENTITY: ORG
103	United Kingdom					NAMED ENTITY: LOC
20	MHRA					NAMED ENTITY: ORG
30	Food & Drug					NAMED ENTITY: ORG
252	SYLVANO					NAMED ENTITY: ORG



	Label	In...	sub...	accountId	username	node_type
159	Vaccino Anti					NAMED ENTITY: LOC
163	Mads Wedel					NAMED ENTITY: PERSON
164	Ibsen					NAMED ENTITY: PERSON
165	Heldigvis					NAMED ENTITY: PERSON
168	Oto					NAMED ENTITY: PERSON
169	Bella					NAMED ENTITY: PERSON
190	FUCKING					NAMED ENTITY: ORG
218	Wonder					NAMED ENTITY: PERSON
227						NAMED ENTITY: PERSON
237						NAMED ENTITY: PERSON
241	KUYAW NA					NAMED ENTITY: ORG
242	Mimvolunteer					NAMED ENTITY: LOC
243	Lagid					NAMED ENTITY: LOC
247	Mapasang					NAMED ENTITY: LOC
254	Frederic Lesueur					NAMED ENTITY: PERSON
255	SpiroRevers					NAMED ENTITY: ORG
2	Dr. Green Mom				DrGreenMom	ACCOUNT: Facebook Page
4	Portugueses no reind				withheld by API	ACCOUNT: Facebook Group

- Edit node
- Select on Overview
- Select neighbour nodes on table
- Select related edges
- Delete**
- Move to... >
- Copy to... >







# Semantic Networks for Other Dataset Types



## Reddit/CSV Datasets

## Twitter Datasets

### Network Analysis

### Network Analysis

**i** This module automatically represents your dataset either as a 'Who Replies to Whom' Communication Network ('Reply-To') OR as a [Two-Mode Semantic Network](#). If you are new to Social Network Analysis (SNA), check out [this SNA primer](#) to learn the fundamentals of Network Analysis.

**i** This module automatically represents your dataset either as a 'Who Replies to Whom' Communication Network ('Reply-To') OR as a [Two-Mode Semantic Network](#). If you are new to Social Network Analysis (SNA), check out [this SNA primer](#) to learn the fundamentals of Network Analysis.

Start by selecting the desired network type, then click on the "Generate Network":

- Reply-To Network
- Two-Mode Semantic Network ([learn more](#))

↓ Generate Network

Start by selecting the desired network type, then click on the "Generate Network":

- Reply-To Network
- Two-Mode Semantic Network based on [spaCy](#)
- Two-Mode Semantic Network based on [Twitter's annotation](#)

↓ Generate Network

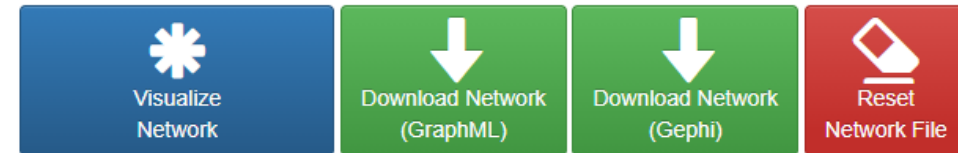
# Semantic Networks for Other Dataset Types



## Network Analysis

**i** This module automatically represents your dataset either as a 'Who Replies to Whom' Communication Network ('Reply-To') OR as a [Two-Mode Semantic Network](#). **Use the Reset button below to switch between the two types of network representations.** If you are new to Social Network Analysis (SNA), check out [this SNA primer](#) to learn the fundamentals of Network Analysis.

Use the **Reset Network File button** to switch between the two types of network representations



Use the Reset Network File button: 1) to switch between different network representations, or 2) to add toxicity scores to your existing network file if you recently completed the Perspective API toxicity analysis. (Clicking Reset Network File will NOT delete your dataset.)

Additional option  
to discover  
Named Entities for  
Twitter datasets



Start by selecting the desired network type, then click on the "Generate Network":

- Reply-To Network
- Two-Mode Semantic Network based on [spaCy](#)
- Two-Mode Semantic Network based on [Twitter's annotation](#)

↓ Generate Network

## Tweet annotation types

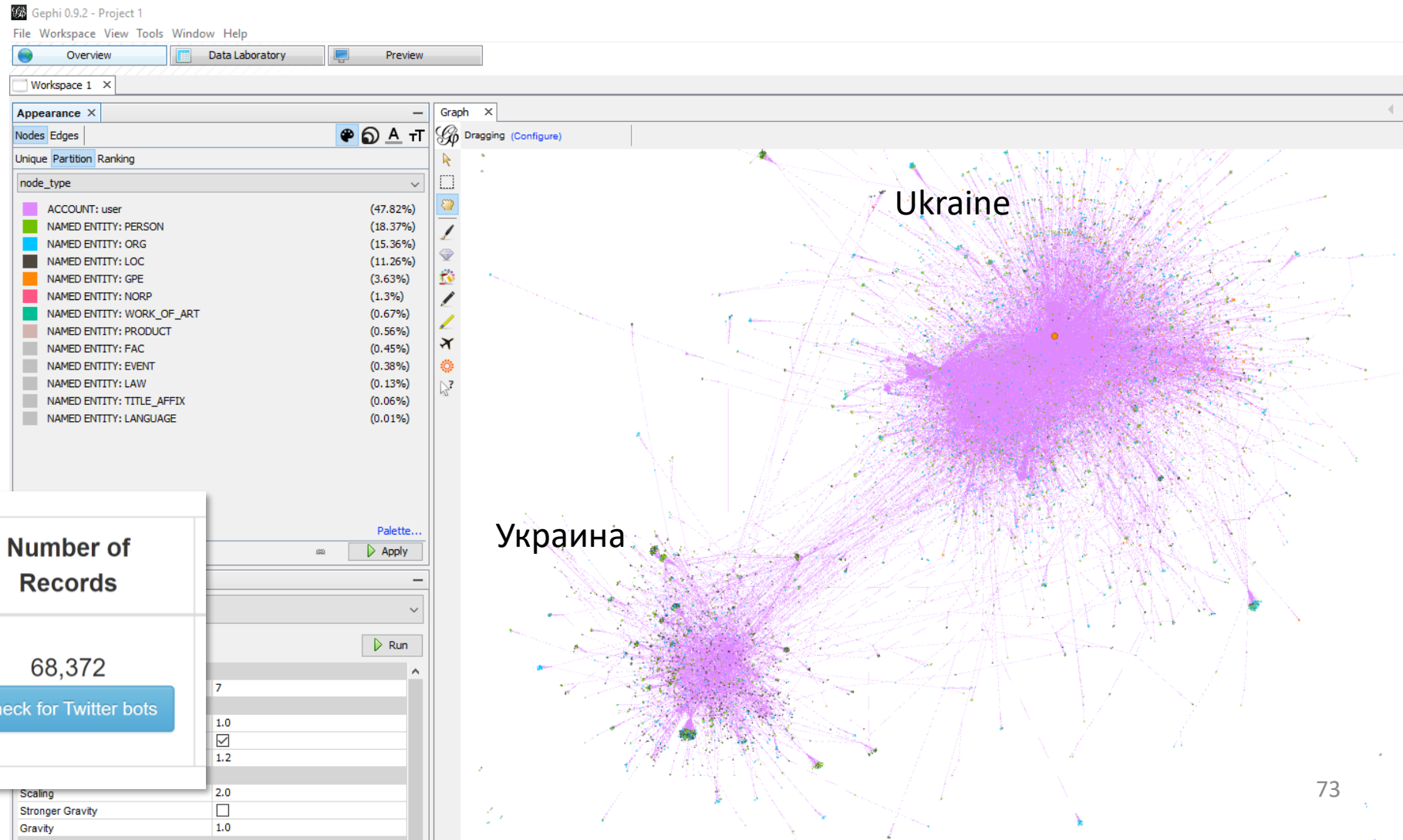
### Entities


Entity annotations are programmatically defined entities that are nested within the entities field and are reflected as annotations in the payload. Each annotation has a confidence score, and an indication of where in the Tweet text the entities were identified (start and end fields).

The entity annotations can have the following types:

- **Person** - Barack Obama, Daniel, or George W. Bush
- **Place** - Detroit, Cali, or "San Francisco, California"
- **Product** - Mountain Dew, Mozilla Firefox
- **Organization** - Chicago White Sox, IBM
- **Other** - Diabetes, Super Bowl 50

# Example: Two-mode Semantic Network of a Twitter dataset mentioning Ukraine OR Украина

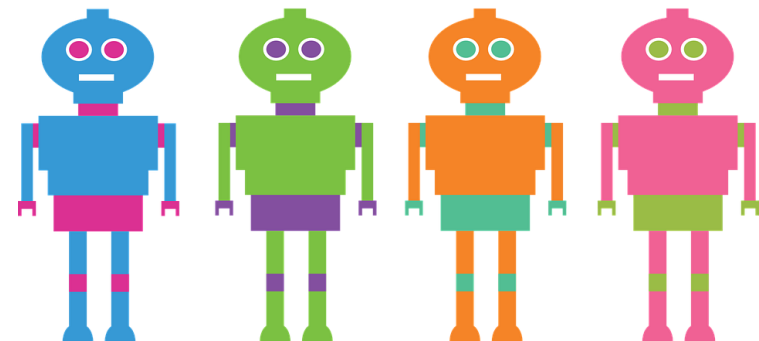


Dataset Name	Number of Records
#ukraine OR ukraine OR украина 	68,372
twitter : #ukraine OR ukraine OR украина	<a href="#">Check for Twitter bots</a>



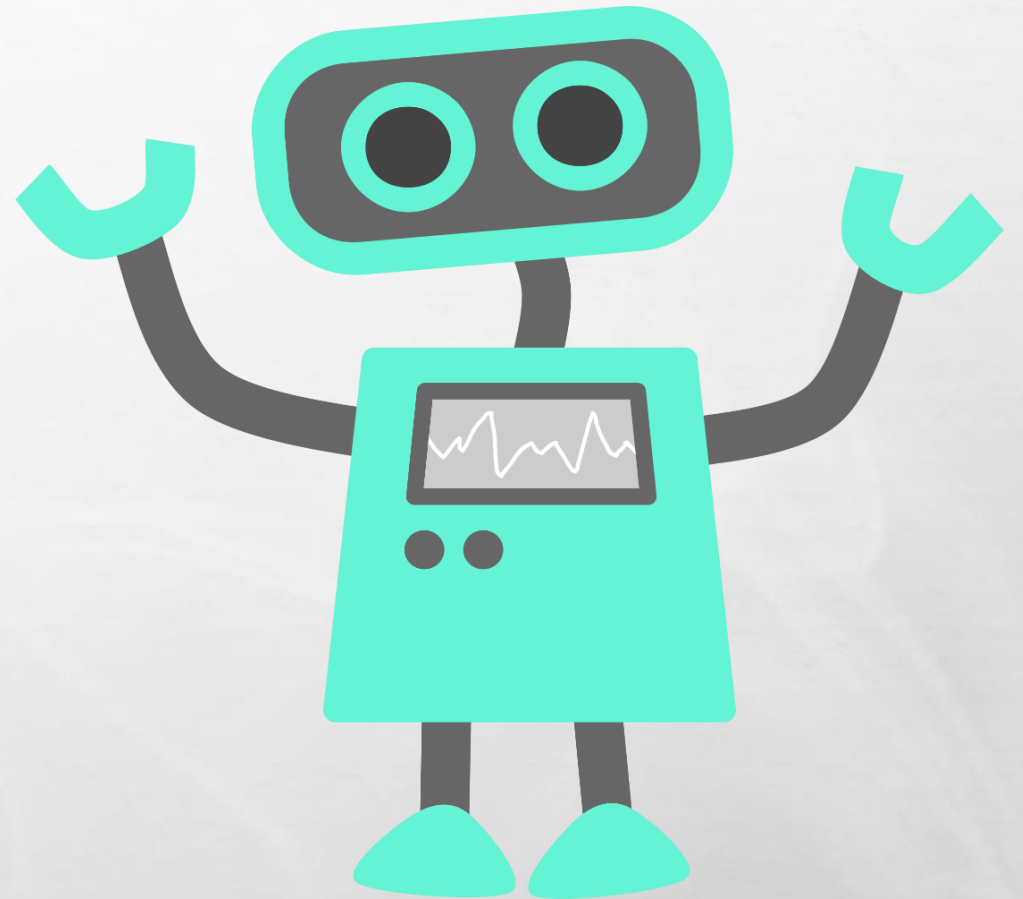
# Outline

1. Data Collection using CrowdTangle (Facebook & Instagram)
2. Two-mode Semantic Networks
- 3. Twitter Bot Detection**

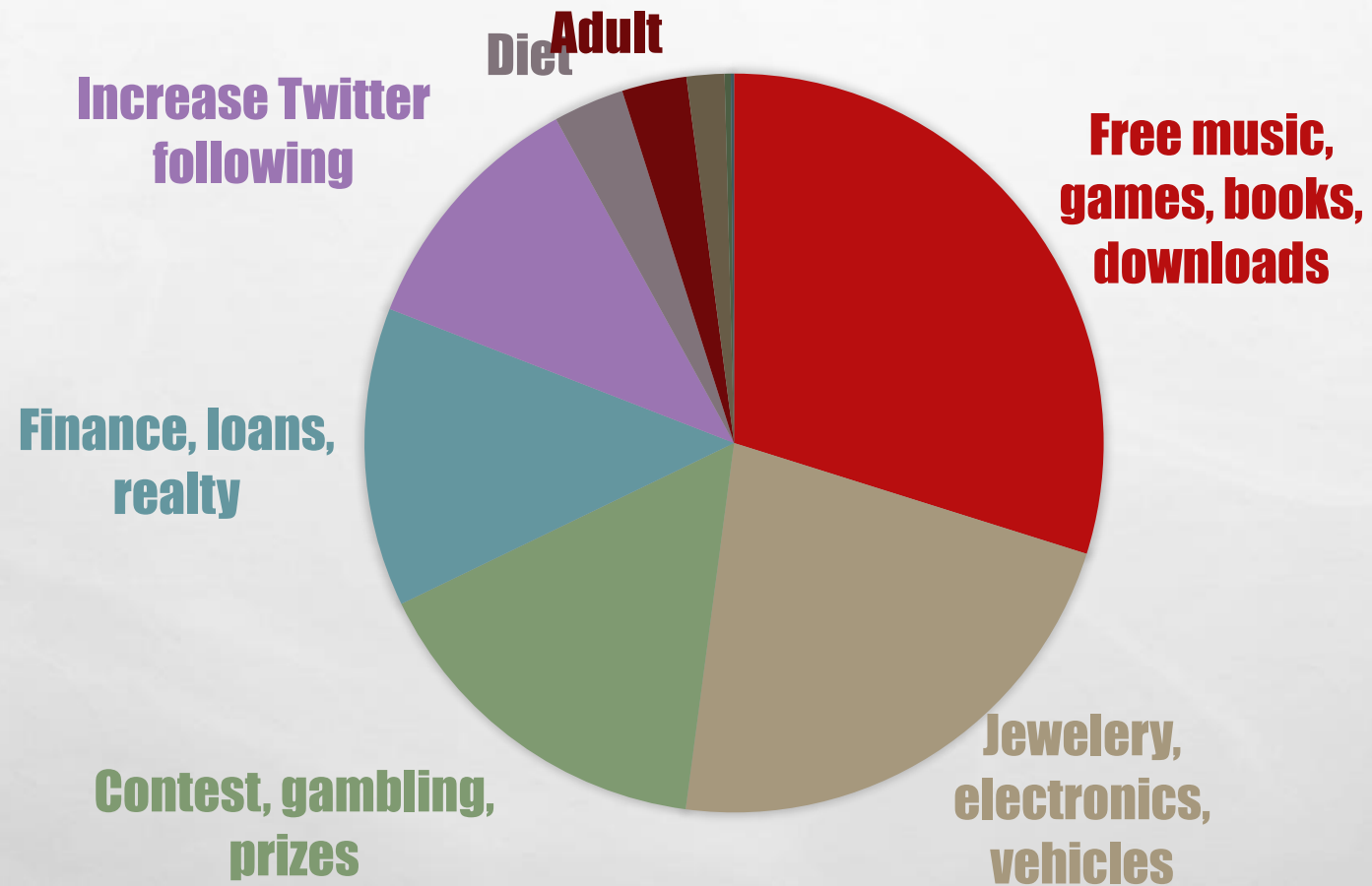


# **SOCIAL BOT**

**SOFTWARE DESIGNED TO ACT ON THE  
INTERNET WITH SOME LEVEL OF AUTONOMY**



# DIFFERENT TYPES OF BOTS



(Grier et al, 2010)

# Sample Twitter Bots




**Hacker News**  
@newsycombinator

I'm a news.ycombinator bot, get the latest from Hacker News! Built by the lovely @riklomas from @superhi\_ – sport...

Follow

The profile features an orange header with a white 'Y' logo and a dashed white circle. A gear icon is visible to the left of the follow button.



**MoMA Bot**  
@MoMARobot

I tweet a random object from the collection of the Museum of Modern Art four times a day. Bot by ...

Follow

The profile has a blue header with a white 'MoMA Bot' logo. A gear icon is visible to the left of the follow button.



**The Lesser Bot**  
@ebooks\_goetia

The Lesser Bot of Solomon offers you endless pages from a text in the style of Ars Goetia and the Pseudomonarchia Daemonum. Courtesy @digitalsqand...

Follow

The profile features a black and white image of a frog on a textured background. A gear icon is visible to the left of the follow button.



**Netflix Bot**  
@netflix\_bot

Tweets new releases on Netflix Instant. Created by @zak123. Check out @Redbox\_bot as well. Updates between 5-7AM MST Every Morning.

Follow

The profile has a red header with a white 'NETFLIX' logo. A gear icon is visible to the left of the follow button.



**Lowpoly Bot**  
@Lowpolybot

A Twitter bot by @Quasimondo that creates random low-polygon versions of pictures it receives....

Follow

The profile features a landscape image with a low-poly style. A gear icon is visible to the left of the follow button.

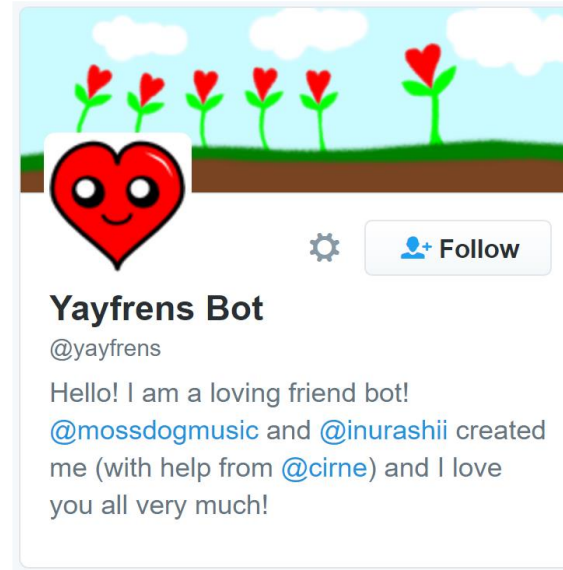


**Generate A Cat Bot**  
@GenerateACat

Yet another procedural cat generating bot. FOLLOW and TWEET AT ME to generate a cat! Generator by @mousefountain. Consciousness by ...

Follow

The profile features a collection of small circular images of various cats. A gear icon is visible to the left of the follow button.



**Yayfrens Bot**  
@yayfrens

Hello! I am a loving friend bot! @mossdogmusic and @inurashii created me (with help from @cirne) and I love you all very much!

Follow

The profile features a red heart with a smiling face. A gear icon is visible to the left of the follow button.



**Reverse OCR**  
@reverseocr

A bot that picks a word and then draws randomly until an OCR library (antimatter15.com/ocrad.js/demo...) reads that word. 4x daily. Also on...

Follow

The profile features a drawing of several hands. A gear icon is visible to the left of the follow button.



# “BAD” BOTS

- **SOCIAL BOTNET DESIGNED TO EXPOSE PRIVATE INFORMATION**
- **HINDER THE ADVANCEMENT OF PUBLIC POLICY**
- **ARTIFICIALLY ENLARGING THE AUDIENCE OF SOME PEOPLE**
- **RUIN THE REPUTATION OF A COMPANY**

The Motley Fool Latest Stock Picks News Guides Community More

## Should Twitter Be Held Accountable for Penny Stock Scams?

Should Twitter be held accountable for Cynk Technologies' ridiculous 25,000% rally?

Leo Sun (TMFSunLion)  
Jul 14, 2014 at 1:33PM

Last Friday, the SEC suspended trading of **Cynk Technologies** -- a social network with zero assets, no revenue, and one employee -- after its stock price inexplicably surged 25,000% in less than a month. The penny stock, which only started trading in June, jumped from \$0.06 per share to \$21 per share, giving it a market value of \$5 billion -- making it nearly twice as valuable as **Zynga** (NASDAQ: ZNGA).

POLITICAL BOTS

Project on Algorithms, Computational Propaganda, and Digital Politics

ABOUT THE TEAM PUBLISHING EVENTS DATA AND RESOURCES



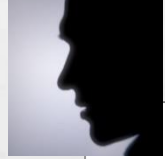
### Cracking the stealth political influence of bots

Among the millions of real people tweeting about the presidential race, there are also a lot of accounts



### Pro-Clinton bots 'fought back but outnumbered in second debate'

# DETECTING BOTS...



**Photo**

- **Color & Edge histograms**
- **Color & Edge Directivity Descriptor (CEDD)**
- **Image Similarity**



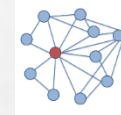
**Message**

•



**Poster**

•

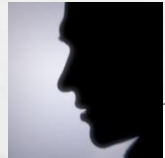


**Social Network**

•

(Yardi et al, '09; Grier et al, '10; Wang, '10; Jin et al, '11)

# DETECTING BOTS...



## Photo

- **Color & Edge histograms**
- **Color & Edge Directivity Descriptor (CEDD)**
- **Image Similarity**



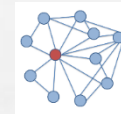
## Message

- **Sensitive words**
- **URL**
- **Duplicates**
- **#hashtags**
- **@replies**



## Poster

- 

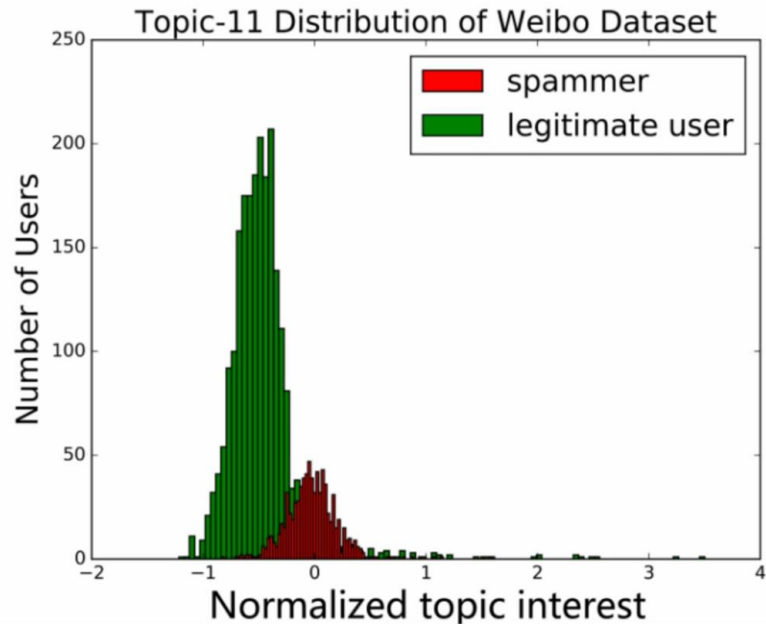


## Social Network

- 

(Yardi et al, '09; Grier et al, '10; Wang, '10; Jin et al, '11)

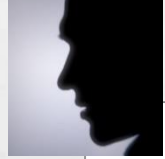
# BOT DETECTION BASED ON TOPIC MODELING



- **“LEGITIMATE” USERS MAINLY SHARE ON LIMITED TOPICS OF INTEREST.**
- **“FAKE ACCOUNTS” POST ON A WIDE RANGE OF TOPICS, LIKELY BECAUSE THEY RANDOMLY COPY & RT OTHER USERS.**

**(LIU ET.AL., 2016)**

# DETECTING BOTS...



## Photo

- Color & Edge histograms
- Color & Edge Directivity Descriptor (CEDD)
- Image Similarity



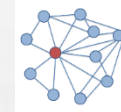
## Message

- Sensitive words
- URL
- Duplicates
- #hashtags
- @replies



## Poster

- Username
- Engagement level
- Creation date

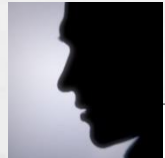


## Social Network

•

(Yardi et al, '09; Grier et al, '10; Wang, '10; Jin et al, '11)

# DETECTING BOTS...



## Photo

- **Color & Edge histograms**
- **Color & Edge Directivity Descriptor (CEDD)**
- **Image Similarity**



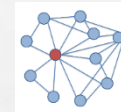
## Message

- **Sensitive words**
- **URL**
- **Duplicates**
- **#hashtags**
- **@replies**



## Poster

- **Username**
- **Engagement level**
- **Creation date**



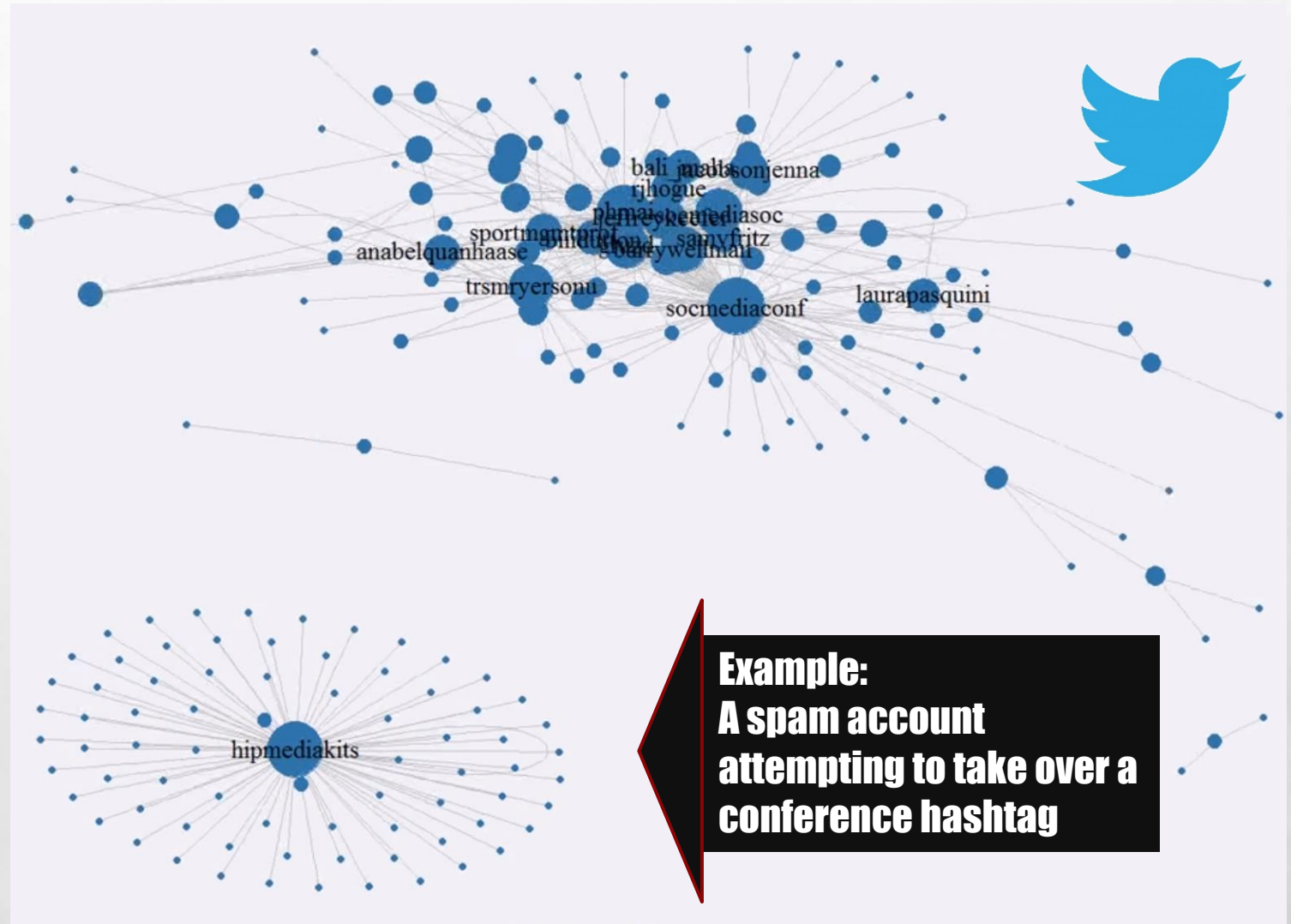
## Social Network

- **# Friends**
- **# Following**
- **In/out degree centrality**
- **Clustering**

(Yardi et al, '09; Grier et al, '10; Wang, '10; Jin et al, '11)

# Detecting Bots...

# Using Social Network Analysis



# TWITTER BOT DETECTION UTILIZING MULTIPLE MACHINE LEARNING ALGORITHMS

BY MRP STUDENT JIEFAN LUO

SUPERVISOR: ANATOLIY GRUZD

Features	Accuracy (Cross-validation)
followers_count	0.6736118
followers_count, friends_count	0.6864886
followers_count, friends_count, favourites_count	0.7188525
followers_count, friends_count, favourites_count, statuses_count	0.7640931
followers_count, friends_count, favourites_count, statuses_count, created_at	0.8691169
followers_count, friends_count, favourites_count, statuses_count, created_at, description_en	0.8870175



# Twitter Bot Detection in Commanalytic with Botometer API



**What is Botometer API?**



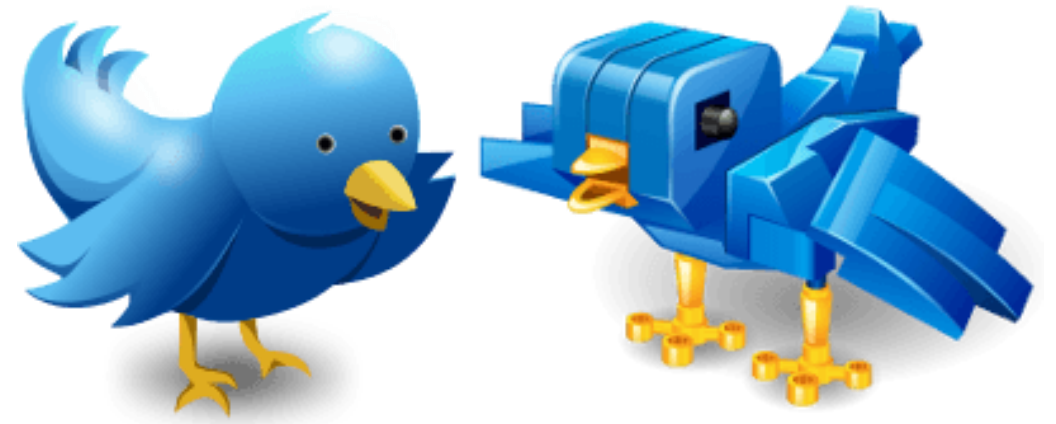
How to use Twitter Bot  
Analysis in Commanalytic



How to get a  
Botometer API Key

# What is Botometer API?

- Botometer API is a tool created by the Observatory of Social Media at Indiana University
- Checks the activity of a Twitter user's account and detects the potential use of automation (shows bot like activity)
- Differentiate between different types of bot behaviours



# What Types of Bot behaviours can it detect?

6 main bot account behaviours Botometer detects:

- **Echo-chamber** - “accounts that engage in follow back groups and share and delete politic content in high volume”
- **Fake follower** - “bots purchased to increase follower counts”
- **Financial** - “bots that post using cashtags”
- **Self declared** - “bots from botwiki.org”
- **Spammer** - “accounts labeled as spambots from several datasets”
- **Other** - “miscellaneous other bots obtained from manual annotation, user feedback, etc.”

Definitions taken from Botometer’s FAQ page: <https://botometer.osome.iu.edu/faq#which-score>

# How does Botometer differentiate these behaviours?

- Botometer uses different machine learning models to determine whether the pattern of behaviour is more like a human or a bot.
- It generates **probability scores** for 6 types of bot-like behaviours. (See slide 3)
- It then compare “models trained on different kinds of bots and on human accounts” to calculate an **Overall** probability score that corresponds to the model(s) with which it has the highest confidence in.

# Botometer's Web Interface

<https://botometer.osome.iu.edu/>

Botometer

[FAQ](#)


[API](#)

[Publications](#)

[Bot Repo](#)

[BEV](#)

[Lite](#)

 [@ttribeiro](#) ▾

# Botometer<sup>®</sup>

An [OSoMe](#) project (bot•o•meter)



Botometer (formerly BotOrNot) checks the activity of a Twitter account and gives it a score. Higher scores mean more bot-like activity.

Use of this service requires Twitter authentication and permissions. ([Why?](#))

If something's not working or you have questions, please contact us only after reading the [FAQ](#).

Botometer is a joint project of the Observatory on Social Media ([OSoMe](#)) and the Network Science Institute ([IUNI](#)) at Indiana University.

← **Earthquake Robot**  
18K Tweets



**Earthquake Robot**  
@earthquakeBot

I am a robot that tweets about any earthquakes 5.0 or greater as they happen. Built by @billsnitzer. Data is from the USGS. Get prepared: [amzn.to/PayjDo](https://amzn.to/PayjDo)

📍 Everywhere 🔗 [eqbot.com](https://eqbot.com) 📅 Joined March 2010

6 Following 122.9K Followers

**Tweets** Tweets & replies Media Likes


 **Earthquake Robot** @earthquakeBot · 1h  
A 5.2 magnitude earthquake occurred 39.15mi SSE of Gorontalo, Indonesia. Details: [eqbot.com/Ght](https://eqbot.com/Ght) Map:


Let's take a look at a self proclaimed bot to see how it is scored by Botometer...

# Botometer's Web Interface

<https://botometer.osome.iu.edu/>

earthquakeBot    Check user    Check followers    Check friends

▼  @earthquakeBot

4.2 / 5 

Bot type scores	
Echo-chamber	1.0
Fake follower	1.4
Financial	0.2
Self declared	3.4
Spammer	0.6
Other	4.2



Bot score based on

All features:	4.2
17% of accounts with a bot score above 4.2 are labeled as humans.	
Language-independent:	4.6
Majority tweet language:	en

Profile    Tweet    Details    Feedback

# Botometer's Web Interface

<https://botometer.osome.iu.edu/>

 **@SMLabTO** 1.4 / 5 

Bot type scores	
Echo-chamber	0.8
Fake follower	0.6
Financial	0.0
Self declared	0.0
Spammer	0.2
Other	2.0

Bot score based on	
All features:	1.4
23% of accounts with a bot score above 1.4 are labeled as humans.	
Language-independent:	2.0
Majority tweet language:	en

[Profile](#) [Tweet](#) [Details](#) [Feedback](#)



# Outline



What is Botometer API?



**How to use Twitter Bot  
Analysis in Commanalytic**



How to get a  
Botometer API Key

# My Datasets

Server Time: July 19, 2021 17:31 UTC

Collect data from

Reddit (LIVE)

Twitter Thread

CrowdTangle







CSV File

My Datasets

Shared With Me

Total records in the account: 469 / 30000 ?

2%

Dataset Name	Number of Records	Toxicity Analysis	Network Analysis	Download Dataset	Collaborators	Delete
Justin Trudeau - Nelson Mandela Tweet  twitter : <a href="https://twitter.com/JustinTrudeau/status/1416855674189930496">https://twitter.com/JustinTrudeau/status/1416855674189930496</a>	Records: 469 <a href="#">Check for Twitter bots</a>					



← Back to My Datasets

Overview

Dataset Name: **Justin Trudeau - Nelson Mandela Tweet**

Platform: **twitter**

Search Criteria: **https://twitter.com/JustinTrudeau/status/1416855674189930496**

Collection started: **2021-07-19 17:30**

Collection ended: **2021-07-19 17:30**

Records: **469**

- Posts Per Day
- Word Cloud
- Emoji Cloud
- Top Ten Posters
- Toxicity Analysis
- Twitter Bot Analysis

## Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely). Once the analysis is complete, the probability scores for each account will be added to your dataset.

Analyze Top 100 Accounts

This option will only analyze 100 most active posters in your dataset.

OR

Analyze All (357) Accounts

This option will analyze all accounts in your dataset, which will take ~1 days to complete using the Botometer Basic plan (500 requests per day). Also since there are >100 unique accounts in your dataset, to use this option, you'll need to request and add your own Botometer API key to your Communalytic account under My Profile.

- The Twitter Bot Analysis Module is based on a machine learning API called [Botometer](#), a project by the Observatory on Social Media (OSoMe) at the University of Indiana.
- If you already have an API key for Botometer, it can be added to your Communalytic account under [My Profile](#); otherwise, you can request one [here](#).
- Botometer generates [probability scores](#) for a variety of automated and/or fraudulent activities including Echo Chamber, Fake Follower, Financial, Self Declare, Spammer and Others.
- Twitter accounts that have been deleted, banned or privated on Twitter will not be analyzed by Botometer.
- To ensure that you are not flagged as a security/excessive user of the Botometer API, Communalytic will only use up to 80% of your daily API limit. When the 80% threshold is reached, the analysis will pause for a day.

# Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely). Once the analysis is complete, the probability scores for each account will be added to your dataset.

Analysis In Progress ...

(You may close this window and visit later to download the bot analysis results)

27%

Progress: 27 / 100 Users Analyzed

Check progress in 30 sec

Cancel Analysis

[← Back to My Datasets](#)

**Overview**

Dataset Name: **Justin Trudeau - Nelson Mandela Tweet**

Platform: **twitter**

Search Criteria: **https://twitter.com/JustinTrudeau/status/1416855674189930496**

Collection started: **2021-07-19 17:30**

Collection ended: **2021-07-19 17:30**

Records: **469**

- Posts Per Day
- Word Cloud
- Emoji Cloud
- Top Ten Posters
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- Twitter Bot Analysis

## Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities .

100 out of 100 accounts from your dataset were analyzed by Botometer API.

[Reset Analysis](#)

[Download](#) CSV of your dataset with the Botometer probability scores for the various types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely).



Username	Overall	Echo Chamber	Fake Follower	Financial	Self Declared	Spammer	Other
1979HAB	0.04	0.14	0.03	0.00	0.00	0.03	0.18
7otnauh	0.34	0.50	0.16	0.01	0.00	0.01	0.18
AdbudMan	0.08	0.05	0.14	0.07	0.01	0.09	0.18
Ahmad86815198	0.78	0.14	0.28	0.06	0.41	0.07	0.18
Al_Mahbook	0.30	0.12	0.30	0.06	0.01	0.14	0.18
Ange04920249	0.40	0.18	0.32	0.01	0.23	0.33	0.18
Angie_CRK	0.71	0.09	0.52	0.05	0.71	0.25	0.18
BBKing94554247	0.40	0.16	0.15	0.00	0.03	0.16	0.18
BeanPlayer	0.06	0.08	0.02	0.00	0.00	0.03	0.18

**Bot type scores**

- Echo-chamber: 1.0
- Fake follower: 1.4
- Financial: 0.2
- Self declared: 3.4
- Spammer: 0.6
- Other: 4.2

[← Back to My Datasets](#)

**Overview**

Dataset Name: **Justin Trudeau - Nelson Mandela Tweet**

Platform: **twitter**

Search Criteria: **https://twitter.com/JustinTrudeau/status/1416855674189930496**

Collection started: **2021-07-19 17:30**

Collection ended: **2021-07-19 17:30**

Records: **469**

- [Posts Per Day](#)
- [Word Cloud](#)
- [Emoji Cloud](#)
- [Top Ten Posters](#)
- [Toxicity Analysis](#)
- [Twitter Bot Analysis](#)

## Download Dataset



**!** If this is the first time that you are working with Twitter data, please review the [Twitter attributes guide](#) prior to downloading and working with the CSV file of your dataset.

# Viewing Botometer Scores in Excel

botometer_checked_on	user_status	botometer_overall	botometer_echo_chamber	botometer_fake_follower	botometer_self_declared	botometer_spammer	botometer_other
----------------------	-------------	-------------------	------------------------	-------------------------	-------------------------	-------------------	-----------------

text	name	username	botometer_checked_on	user_status	botometer_overall	botometer_echo_chamber	botometer_fake_follower	botometer_financial	botometer_self_declared	botometer_spammer	botometer_other
2377	Merry Szymc:	MerrySzyr	7/19/2021 20:52	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@Cherish:	Patriotgirl45	Patriotgirl	7/19/2021 20:52	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@MerrySz:	Jennifer Hunt	jhunter23	7/19/2021 20:52	ACCOUNT_NOT_FOUND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ngzamo	Patriotgirl45	Patriotgirl	7/19/2021 20:52	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@Reyn84:	lisa hannah #	lisaalma	7/19/2021 21:07	ACCOUNT_AVAILABLE		0.11	0.27	0.25	0.02	0.05	0.01
@monica:	AdotKitz	AdotKitz	7/19/2021 20:37	ACCOUNT_AVAILABLE		0.28	0.09	0.2	0.06	0.23	0.1
@vlogs_ki:	Trisha Layma	Cherish19	7/19/2021 20:52	ACCOUNT_NOT_FOUND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@jhunter:	Merry Szymc:	MerrySzyr	7/19/2021 20:52	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@Madam	Robin Burris	RobinBurr	7/19/2021 20:37	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@GnomeS:	Sheri Cotner	CotnerShe	7/19/2021 21:22	ACCOUNT_AVAILABLE		0.09	0.13	0.21	0.02	0.05	0.02
@acablart	Robin Burris	RobinBurr	7/19/2021 20:37	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@brotha_	Sigma Owen	TryCrying	7/19/2021 20:52	ACCOUNT_AVAILABLE		0.01	0.12	0.04	0	0.03	0
@MerrySz:	Jennifer Hunt	jhunter23	7/19/2021 20:52	ACCOUNT_NOT_FOUND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@POTUS \	Eddard Snark	WokeMay	7/19/2021 20:37	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@Segidre:	Dracaris	Akylle7	7/19/2021 20:51	ACCOUNT_AVAILABLE		0.27	0.15	0.21	0	0.05	0.22
@Mozelle	Chris.janda	Chrisjanda	7/19/2021 20:36	ACCOUNT_AVAILABLE		0.81	0.04	0.35	0.08	0.76	0.18
@CotnerS	Gnome Stonk	GnomeStc	7/19/2021 20:37	ACCOUNT_AVAILABLE		0.07	0.04	0.18	0.03	0.11	0.02
@JamesM	Nancy Hart	nhart543	7/19/2021 20:52	ACCOUNT_AVAILABLE		0.26	0.51	0.24	0	0.23	0.02
@crosby_	MJPalau	PalauMj	7/19/2021 20:36	ACCOUNT_AVAILABLE		0.93	0.93	0.22	0	0.01	0.03
2377	Merry Szymc:	MerrySzyr	7/19/2021 20:52	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
It's great	Phillip- #Bidei	Phillip202	7/19/2021 20:52	ACCOUNT_AVAILABLE		0.95	0.95	0.48	0	0.03	0
@WokeM	Mozelle Hedg	MozelleHe	7/19/2021 21:07	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@vixerei	Amanda81	AmandaM	7/19/2021 21:22	ACCOUNT_AVAILABLE		0.17	0.01	0.12	0.01	0.07	0.13
@MerrySz:	Jennifer Hunt	jhunter23	7/19/2021 20:52	ACCOUNT_NOT_FOUND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2377	Merry Szymc:	MerrySzyr	7/19/2021 20:52	ACCOUNT_SUSPENDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
@mlissa1	Vivian Kay	wildviv	7/19/2021 21:07	ACCOUNT_AVAILABLE		0.66	0.02	0.32	0.11	0.45	0.05
@vixerei	Amanda81	AmandaM	7/19/2021 21:22	ACCOUNT_AVAILABLE		0.17	0.01	0.12	0.01	0.07	0.13
@Sarafina	Fillers Diller	krokuskris	7/19/2021 20:52	ACCOUNT_AVAILABLE		0.04	0.37	0.1	0.02	0.01	0.07

# Outline



What is Botometer API?



How to use Twitter Bot  
Analysis in Commanalytic



**How to get a  
Botometer API Key**



# How to request your own Botometer API key

<https://rapidapi.com/OSoMe/api/botometer-pro/>

**RapidAPI** Search for APIs / Create Team Add Your API Docs Log In **Sign Up**

**Botometer Pro** FREEMIUM  
By [Observatory on Social Media](#) | Updated 4 months ago | [Social](#)

Popularity: 9.9 / 10 Latency: 1,508ms Service Level: 100%

[Endpoints](#) [About](#) [Tutorials](#) [Discussions](#) [Pricing](#) [Specs](#)

## Botometer Pro API Documentation

Botometer® checks Twitter accounts for possibly automated activity.

Search endpoints

- POST Check accounts in bulk
- POST Check account v4

**POST** Check accounts in bulk Test Endpoint

Check Twitter accounts in bulk

Header Parameters

X-RapidAPI-Host: botometer-pro.p.rapidapi.com (REQUIRED)

Code Snippets Results Download API Spec

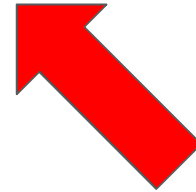
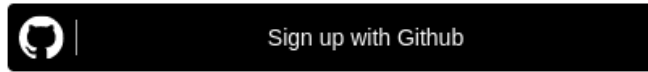
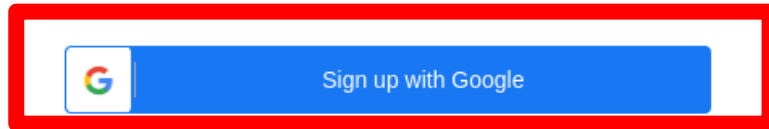
(Node.js) Axios Copy Code

```
var axios = require("axios").default;

var options = {
  method: 'POST',
  url: 'https://botometer-pro.p.rapidapi.com/litev1/check_accounts_in_bulk',
  headers: {
    'content-type': 'application/json',
    'x-rapidapi-host': 'botometer-pro.p.rapidapi.com'
  },
  ...
}
```

# Create a new RapidAPI account

<https://rapidapi.com/>



or

Username

Enter your username

Work Email

Enter your email

Password

Must Have 8-42 Characters



I'm not a robot



reCAPTCHA  
Privacy - Terms

## Find and Connect to Thousands of APIs

- ✓ Discover APIs
- ✓ Test from your browser
- ✓ Connect using code snippets
- ✓ Manage APIs from one dashboard

# Search for 'Botometer' API on the RapidAPI site

<https://rapidapi.com/>

The screenshot shows the RapidAPI website interface. At the top left is the RapidAPI logo. A search bar in the top center contains the text 'botometer pro', which is highlighted with a red box. A red arrow points from the search bar to a dropdown menu that displays 'Botometer Pro' with a small icon and 'To All Results (1)' with a right-pointing arrow. To the right of the search bar are navigation links: 'My Orgs', 'API Marketplace', 'My Apps', 'My APIs', and 'Docs'. Further right are a notification bell icon with a red '6' and a bar chart icon. Below the search bar is a large blue banner with the text 'Find and Connect to Thousands of APIs' and 'One SDK. One API key. One dashboard.' Below the banner are two tabs: 'Public APIs' (selected) and 'Private APIs'. On the left side, there is a 'Categories' list with links for 'Data', 'Sports', 'Finance', 'Travel', 'Entertainment', and 'View All Categories'. In the center, there is a section titled 'Discover More APIs' with the subtitle 'Browse through our collections to learn about new use cases to implement in your app'. Below this are four API collection cards: 'Flight Data APIs' (blue), 'Free SMS APIs' (purple), 'Top Translation APIs' (orange), and 'City Data APIs' (orange). Navigation arrows are visible on the left and right sides of the collection cards.

# View & Select 'Botometer' API Plan

The screenshot shows the RapidAPI interface for the Botometer Pro API. At the top, the RapidAPI logo is on the left, and navigation links for 'My Orgs', 'API Marketplace', 'My Apps', 'My APIs', and 'Docs' are on the right. A search bar for APIs is also present. The main header for the API includes the name 'Botometer Pro' with a 'FREEMIUM' badge, the provider 'Observatory on Social Media', and update information. Key performance indicators are shown: Popularity (9.9 / 10), Latency (1,508ms), and Service Level (100%). Below this, a navigation menu contains links for 'Endpoints', 'About', 'Tutorials', 'Discussions', 'Pricing', and 'Specs'. The 'Pricing' link is highlighted with a red rectangular box, and a large red arrow points from it towards the 'Botometer Pro API Documentation' section. The documentation section includes a search bar for endpoints, a list of endpoints (e.g., 'POST Check accounts in bulk'), and a detailed view of the 'POST Check accounts in bulk' endpoint. This view includes a 'Subscribe to Test' button, a description of the endpoint, a dropdown menu for the account type (currently 'Personal Account Tiago Ribeiro'), a dropdown for the RapidAPI App (currently 'default-application\_5392303'), and a section for 'Header Parameters' with fields for 'X-RapidAPI-Key' and 'X-RapidAPI-Host'. On the right side of the endpoint view, there are tabs for 'Code Snippets' and 'Results', and a 'Download API Spec' button. The 'Code Snippets' tab is active, showing a code snippet for using the API with Node.js and Axios.

**Botometer Pro** FREEMIUM

By [Observatory on Social Media](#) | Updated 4 months ago | [Social](#)

Popularity: 9.9 / 10 | Latency: 1,508ms | Service Level: 100%

[Endpoints](#) | [About](#) | [Tutorials](#) | [Discussions](#) | **[Pricing](#)** | [Specs](#)

## Botometer Pro API Documentation

Botometer® checks Twitter accounts for possibly automated activity.

Search endpoints

- [POST Check accounts in bulk](#)
- [POST Check account v4](#)

**POST** Check accounts in bulk Subscribe to Test [Download API Spec](#)

Check Twitter accounts in bulk

Personal Account  
Tiago Ribeiro

RapidAPI App: default-application\_5392303 (REQUIRED)

Header Parameters

X-RapidAPI-Key: [Input Field] (REQUIRED)

X-RapidAPI-Host: botometer-pro.p.rapidapi.com

Code Snippets | Results

(Node.js) Axios [Copy Code](#)

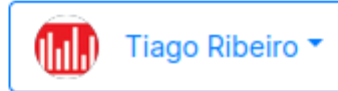
```
var axios = require("axios").default;

var options = {
  method: 'POST',
  url: 'https://botometer-pro.p.rapidapi.com/litev1/check_accounts_in_bulk',
```

# View & Select 'Botometer' API Plan

## Choose the Right Plan For You

RapidAPI partners directly with API providers to give you no-fuss, transparent pricing. Find a plan that best matches the scale you need for your application.



	Basic	Recommended Pro	Ultra
Objects	<b>\$0.00 / mo</b> <a href="#">Subscribe</a>	<b>\$0.00 / mo</b> <a href="#">Subscribe</a>	<b>\$50.00 / mo</b> <a href="#">Subscribe</a>
BotometerLite			<b>200 / day</b> + \$0.01 each other
Check account	<b>500 / day</b> Hard Limit	<b>2,000 / day</b> + \$0.001 each other	<b>17,280 / day</b> + \$0.001 each other
<b>Features</b>			
BotometerLite ⓘ	×	×	✓
Check account ⓘ	✓	✓	✓
<b>Rate Limit</b>	one request per second		

[← Back to All Plans](#)

## Subscription Created Successfully

Start using your API - [API Documentation](#)

### Frequently Asked Questions

#### Is my payment information secure?

Credit cards are processed through a PCI compliant banking partner.

#### Why do you require a credit card for a freemium API?

We work directly with API providers to implement clear, transparent pricing for developers. The Provider may require a credit card if a plan has a quota with an overage fee. If you would no longer like to use the API, you can unsubscribe from the plan at anytime by clicking the "unsubscribe" button under the Billing section of the RapidAPI Dashboard.

#### What if I exceed my plan limits?

Depending on your plan's specification, you will either incur overage charges or be suspended.

#### When will I be billed?

We charge your credit card upon subscription to an API's plan and at the next recurring interval.

#### How are refunds handled?

For refund requests, please contact us at [support@rapidapi.com](mailto:support@rapidapi.com)

### A Proven Platform With Scale

Personal Account  
Tiago Ribeiro

## Dashboard

Dashboard

Add New App

Inbox

Billing

Search by App name

My Apps

default-application\_5392303

Analytics

Configuration

Security

Botometer Pro

Statistics

Time Range

Period

Time Zone

Total API calls (Default)

Last 7 days

Days



GMT+00:00 Greenwich Mean Time GMT

600  
450  
300

Botometer Pro

# default-application\_5392303 - Security



[+ Add New Key](#) [i](#)

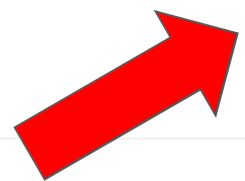
Name	Key	Created On	
Application Key	.....  		<a href="#">Edit</a>





# My Datasets

-  My Profile
-  My Collaborations
- [Logout](#)



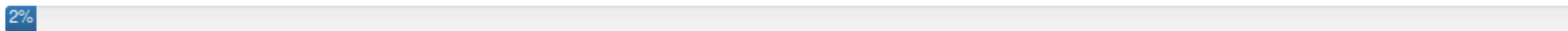
Server Time: July 19, 2021 17:31 UTC






Collect data from

[Reddit \(LIVE\)](#) [Twitter Thread](#) [CrowdTangle](#) [CSV File](#)

[My Datasets](#) [Shared With Me](#)

Total records in the account: 469 / 30000 ?



Dataset Name	Number of Records	Toxicity Analysis	Network Analysis	Download Dataset	Collaborators	Delete
<a href="#">Justin Trudeau - Nelson Mandela Tweet</a> twitter : <a href="https://twitter.com/JustinTrudeau/status/1416855674189930496">https://twitter.com/JustinTrudeau/status/1416855674189930496</a>	Records: 469 <a href="#">Check for Twitter bots</a>					

## API Keys

Twitter  
Bearer  
Token:

AAAAAAAAAAAAAAAA

Remove Key

Botometer  
API:

Sign up with RapidAPI and follow [this link](#) to  
access your Botometer Pro API key.

Enter Key

CrowdTangle  
API:

Remove Key

Perspective  
API:

AlzaSyD4

Enter **Botometer** API Key

Botometer API Key

Submit

Close

**\*Note:** We recommend using a personal Gmail  
emails may block Google Cloud console / API key

## API Keys

Twitter Bearer Token: AAAAAA

Remove Key

Botometer API: 8e9b90

Remove Key

CrowdTangle API:

Remove Key

Perspective API: AlzaSyl

Remove Key

**\*Note:** We recommend using a personal Gmail account to request an API key, some institutional emails may block Google Cloud console / API key requests

# My Datasets

Server Time: July 19, 2021 17:31 UTC

Collect data from

Reddit (LIVE)

Twitter Thread

CrowdTangle







CSV File

My Datasets

Shared With Me

Total records in the account: 469 / 30000 ?

2%

Dataset Name	Number of Records	Toxicity Analysis	Network Analysis	Download Dataset	Collaborators	Delete
Justin Trudeau - Nelson Mandela Tweet  twitter : <a href="https://twitter.com/JustinTrudeau/status/1416855674189930496">https://twitter.com/JustinTrudeau/status/1416855674189930496</a>	Records: 469 <a href="#">Check for Twitter bots</a>					



← Back to My Datasets

**Overview**

Dataset Name: **Justin Trudeau - Nelson Mandela Tweet**

Platform: **twitter**

Search Criteria: **https://twitter.com/JustinTrudeau/status/1416855674189930496**

Collection started: **2021-07-19 17:30**

Collection ended: **2021-07-19 17:30**

Records: **469**

- Posts Per Day
- Word Cloud
- Emoji Cloud
- Top Ten Posters
- Toxicity Analysis
- Twitter Bot Analysis

## Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities .

100 out of 100 accounts from your dataset were analyzed by Botometer API.

Reset Analysis

Download a CSV of your dataset with the Botometer probability scores for the various types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely).

Username	Overall ?	Echo Chamber ?	Fake Follower ?	Financial ?	Self Declared ?	Spammer ?	Other ?
1979HAB	0.04	0.14	0.03	0.00	0.00	0.03	0.18
7otnauh	0.34	0.50	0.16	0.01	0.00	0.01	0.40
AdbudMan	0.08	0.05	0.14	0.07	0.01	0.09	0.17
Ahmad86815198	0.78	0.14	0.28	0.06	0.41	0.07	0.78
AI_Mahbook	0.30	0.12	0.30	0.06	0.01	0.14	0.31
Ange04920249	0.40	0.18	0.32	0.01	0.23	0.33	0.39
Angie_CRK	0.71	0.09	0.52	0.05	0.71	0.25	0.61
BBKing94554247	0.40	0.16	0.15	0.00	0.03	0.16	0.28
BeanPlayer	0.06	0.08	0.02	0.00	0.00	0.03	0.27

← Back to My Datasets

Overview

Dataset Name: **Justin Trudeau - Nelson Mandela Tweet**

Platform: **twitter**

Search Criteria: **https://twitter.com/JustinTrudeau/status/1416855674189930496**

Collection started: **2021-07-19 17:30**

Collection ended: **2021-07-19 17:30**

Records: **469**

- Posts Per Day
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- Twitter Bot Analysis

## Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely). Once the analysis is complete, the probability scores for each account will be added to your dataset.

Analyze Top 100 Accounts This option will only analyze 100 most active posters in your dataset.

OR

Analyze All (357) Accounts This option will analyze all accounts in your dataset, which will take ~1 days to complete using the Botometer Basic plan (500 requests per day). Also since there are >100 unique accounts in your dataset, to use this option, you'll need to request and add your own Botometer API key to your Communalytic account under My Profile.

- The Twitter Bot Analysis Module is based on a machine learning API called Botometer, a project by the Observatory on Social Media (OSoMe) at the University of Indiana.
- If you already have an API key for Botometer, it can be added to your Communalytic account under My Profile; otherwise, you can request one here.
- Botometer generates probability scores for a variety of automated and/or fraudulent activities including Echo Chamber, Fake Follower, Financial, Self Declare, Spammer and Others.
- Twitter accounts that have been deleted, banned or privated on Twitter will not be analyzed by Botometer.
- To ensure that you are not flagged as a security/excessive user of the Botometer API, Communalytic will only use up to 80% of your daily API limit. When the 80% threshold is reached, the analysis will pause for a day.

# Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely). Once the analysis is complete, the probability scores for each account will be added to your dataset.

Analysis In Progress ...

(You may close this window and visit later to download the bot analysis results)

34%

Progress: 122 / 357 Users Analyzed

Check progress in 19 sec

Cancel Analysis

[← Back to My Datasets](#)

Overview

Dataset Name: **Justin Trudeau - Nelson Mandela Tweet**

Platform: **twitter**

Search Criteria: **https://twitter.com/JustinTrudeau/status/1416855674189930496**

Collection started: **2021-07-19 17:30**

Collection ended: **2021-07-19 17:30**

Records: **469**

Posts Per Day

Word Cloud

Emoji Cloud

Top Ten Posters

Toxicity Analysis

Twitter Bot Analysis

## Twitter Bot Analysis

The Twitter Bot Analysis Module is designed to detect potential use of automation. It analyzes accounts in your dataset and generates the probability scores for a variety of different types of automated and/or fraudulent activities .

**356** out of **357** accounts from your dataset were analyzed by Botometer API.

[Reset Analysis](#)


[Download](#) a CSV of your dataset with the Botometer probability scores for the various types of automated and/or fraudulent activities (from 0=not likely to 1=highly likely).


Username	Overall ?	Echo Chamber ?	Fake Follower ?	Financial ?	Self Declared ?	Spammer ?	Other ?
<a href="#">1979HAB</a>	0.04	0.14	0.03	0.00	0.00	0.03	0.18
<a href="#">7otnauh</a>	0.30	0.52	0.16	0.02	0.00	0.01	0.38
<a href="#">AdbudMan</a>	0.08	0.05	0.14	0.07	0.01	0.09	0.17
<a href="#">Ahmad86815198</a>	0.72	0.15	0.26	0.05	0.29	0.11	0.72
<a href="#">Al_Mahbook</a>	0.30	0.13	0.30	0.06	0.01	0.14	0.31
<a href="#">Ange04920249</a>	0.40	0.16	0.27	0.01	0.25	0.31	0.45
<a href="#">Angie_CRK</a>	0.71	0.09	0.55	0.04	0.71	0.26	0.60
<a href="#">BBKing94554247</a>	0.40	0.16	0.15	0.00	0.03	0.16	0.28
<a href="#">BeanPlayer</a>	0.04	0.07	0.04	0.00	0.00	0.03	0.28





# Join the Commanalytic Discussion Group


<https://groups.google.com/u/1/g/commanalytic-community-group>

☰  Groups


 New conversation

 My groups

 Recent groups


▶  Favourite groups

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 Starred conversations

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Commalytic Community Group

 **Conversations**

- Approved
- Pending

 People

- Members

🔍 Conversations    ▾    Search conversations within commanalytic-c...    ▾



## ☆ Commalytic Community Group

