

# Infodemic

A Comprehensive Cross-Platform Analysis of Troll Activities in the U.S. Presidential Election in August 2024



# **Table of Contents**

Table of Contents	2
Glossary	4
Executive Summary	6
Methodology	
Building Similarity Nodes Between User Accounts	9
User Feature Extraction	
User Behaviour Features	
Co-occurrence Features	10
User Clustering	
User Similarity Evaluation	
User Clustering	
Group Analysis	
Opinion Clustering	
Stance Detection and Narrative Summary	
Data Coverage	
Timeline	
Summary of Main Battlefields & Examples of Foreign Forces	
Summary of 1st Battlefield.	
Example of Foreign Forces: Russian State Media	
Summary of 2nd Battlefield	
Example of Foreign Forces: Chinese State Media	
Example of Foreign Forces: Russian State Media Summary of 3rd Battlefield	
Example of Foreign Forces: Chinese State Media Cross-Platform Analysis of Main Troll Groups	
Troll Group: YouTube#72	
Narrative Strategies	
Operated Narratives	
Targets of Troll Activities	
Troll Group: Facebook#70033	
Narrative Strategies	
Operated Narratives	
Targets of Troll Activities	
Troll Group: Twitter#10946	
Narrative Strategies	
Operated Narratives	
Targets of Troll Activities	
Troll Group: TikTok#144	
Narrative Strategies	21
Operated Narratives	21
Targets of Troll Activities	

Narrative Strategies       23         Operated Narratives       23         Targets of Troll Activities       24         Cross-Platform Analysis of Overall Troll Activities       24         YouTube Troll Activities: 3rd Battlefield Specific       24         Border Issues and Political Dynamics       24         Overall Troll Strategies       24         Facebook Troll Activities: 2nd Battlefield Specific       25         Labor Issues and Political Dynamics       25         Overall Troll Strategies       25         Twitter Troll Activities: 1st and 2nd Battlefield Specific       26         1st Battlefield: Racial Issues and Political Dynamics       26         Overall Troll Strategies       26         2nd Battlefield: Overall Troll Strategies       27         TikTok Troll Activities: 1st and 3rd Battlefield Specific       28         Overall Troll Strategies       28         Overall Troll Strategies       29         1st Battlefield: Overall Troll Strategies       29         1st Battlefield: Overall Troll Strategies       29         3rd Battlefield: Overall T	Troll Group: Weibo#2562	22
Targets of Troll Activities.24Cross-Platform Analysis of Overall Troll Activities.24YouTube Troll Activities: 3rd Battlefield Specific.24Border Issues and Political Dynamics.24Overall Troll Strategies.24Facebook Troll Activities: 2nd Battlefield Specific.25Labor Issues and Political Dynamics.25Overall Troll Strategies.25Overall Troll Strategies.25Twitter Troll Activities: 1st and 2nd Battlefields Specific.261st Battlefield: Racial Issues and Political Dynamics.26Overall Troll Strategies.262nd Battlefield: Overall Troll Strategies.27TikTok Troll Activities: 1st Battlefield Specific.28Overall Troll Strategies.28Weibo Troll Activities: 1st and 3rd Battlefields Specific.291st Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.30Troll Activities Comprehensive Analysis.30	Narrative Strategies	
Cross-Platform Analysis of Overall Troll Activities.       24         YouTube Troll Activities: 3rd Battlefield Specific.       24         Border Issues and Political Dynamics.       24         Overall Troll Strategies.       24         Facebook Troll Activities: 2nd Battlefield Specific.       25         Labor Issues and Political Dynamics.       25         Overall Troll Strategies.       25         Overall Troll Strategies.       25         Overall Troll Strategies.       26         Overall Troll Strategies.       27         TikTok Troll Activities: 1st Battlefield Specific.       28         Overall Troll Strategies.       27         TikTok Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29	Operated Narratives	23
YouTube Troll Activities: 3rd Battlefield Specific.24Border Issues and Political Dynamics.24Overall Troll Strategies.24Facebook Troll Activities: 2nd Battlefield Specific.25Labor Issues and Political Dynamics.25Overall Troll Strategies.25Twitter Troll Activities: 1st and 2nd Battlefields Specific.261st Battlefield: Racial Issues and Political Dynamics.26Overall Troll Strategies.26Overall Troll Strategies.27TikTok Troll Activities: 1st Battlefield Specific.28Overall Troll Strategies.28Weibo Troll Activities: 1st and 3rd Battlefields Specific.291st Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.30Troll Activities Comprehensive Analysis.30	Targets of Troll Activities	
Border Issues and Political Dynamics24Overall Troll Strategies24Facebook Troll Activities: 2nd Battlefield Specific25Labor Issues and Political Dynamics25Overall Troll Strategies25Twitter Troll Activities: 1st and 2nd Battlefields Specific261st Battlefield: Racial Issues and Political Dynamics26Overall Troll Strategies26Overall Troll Strategies27TikTok Troll Activities: 1st Battlefield Specific28Overall Troll Activities: 1st and 3rd Battlefields Specific291st Battlefield: Overall Troll Strategies293rd Battlefield: Overall Troll Strategies30	Cross-Platform Analysis of Overall Troll Activities	24
Overall Troll Strategies.24Facebook Troll Activities: 2nd Battlefield Specific.25Labor Issues and Political Dynamics.25Overall Troll Strategies.25Twitter Troll Activities: 1st and 2nd Battlefields Specific.261st Battlefield: Racial Issues and Political Dynamics.26Overall Troll Strategies.26Overall Troll Strategies.262nd Battlefield: Overall Iroll Strategies.262nd Battlefield: Overall Troll Strategies.27TikTok Troll Activities: 1st Battlefield Specific.28Overall Troll Strategies.28Weibo Troll Activities: 1st and 3rd Battlefields Specific.291st Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.30Troll Activities Comprehensive Analysis.30	YouTube Troll Activities: 3rd Battlefield Specific	
Facebook Troll Activities: 2nd Battlefield Specific.25Labor Issues and Political Dynamics.25Overall Troll Strategies.25Twitter Troll Activities: 1st and 2nd Battlefields Specific.261st Battlefield: Racial Issues and Political Dynamics.26Overall Troll Strategies.262nd Battlefield: Overall Troll Strategies.262nd Battlefield: Overall Troll Strategies.27TikTok Troll Activities: 1st Battlefield Specific.28Overall Troll Strategies.28Weibo Troll Activities: 1st and 3rd Battlefields Specific.291st Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.29Stroll Activities Comprehensive Analysis.30	Border Issues and Political Dynamics	24
Labor Issues and Political Dynamics.25Overall Troll Strategies.25Twitter Troll Activities: 1st and 2nd Battlefields Specific.261st Battlefield: Racial Issues and Political Dynamics.26Overall Troll Strategies.262nd Battlefield: Overall Troll Strategies.27TikTok Troll Activities: 1st Battlefield Specific.28Overall Troll Strategies.28Weibo Troll Activities: 1st and 3rd Battlefields Specific.291st Battlefield: Overall Troll Strategies.29Srd Battlefield: Overall Troll Strategies.30Troll Activities Comprehensive Analysis.30	Overall Troll Strategies	24
Overall Troll Strategies.25Twitter Troll Activities: 1st and 2nd Battlefields Specific.261st Battlefield: Racial Issues and Political Dynamics.26Overall Troll Strategies.262nd Battlefield: Overall Troll Strategies.27TikTok Troll Activities: 1st Battlefield Specific.28Overall Troll Strategies.28Weibo Troll Activities: 1st and 3rd Battlefields Specific.291st Battlefield: Overall Troll Strategies.293rd Battlefield: Overall Troll Strategies.29Troll Activities Comprehensive Analysis.30	Facebook Troll Activities: 2nd Battlefield Specific	25
Twitter Troll Activities: 1st and 2nd Battlefields Specific.       26         1st Battlefield: Racial Issues and Political Dynamics.       26         Overall Troll Strategies.       26         2nd Battlefield: Overall Troll Strategies.       26         2nd Battlefield: Overall Troll Strategies.       27         TikTok Troll Activities: 1st Battlefield Specific.       28         Overall Troll Strategies.       28         Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         Troll Activities Comprehensive Analysis.       30	Labor Issues and Political Dynamics	
1st Battlefield: Racial Issues and Political Dynamics.       26         Overall Troll Strategies.       26         2nd Battlefield: Overall Troll Strategies.       27         TikTok Troll Activities: 1st Battlefield Specific.       28         Overall Troll Strategies.       28         Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         30       30	Overall Troll Strategies	25
Overall Troll Strategies.       26         2nd Battlefield: Overall Troll Strategies.       27         TikTok Troll Activities: 1st Battlefield Specific.       28         Overall Troll Strategies.       28         Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         Troll Activities Comprehensive Analysis.       30	Twitter Troll Activities: 1st and 2nd Battlefields Specific	
2nd Battlefield: Overall Troll Strategies.       27         TikTok Troll Activities: 1st Battlefield Specific.       28         Overall Troll Strategies.       28         Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         Troll Activities Comprehensive Analysis.       30	1st Battlefield: Racial Issues and Political Dynamics	26
TikTok Troll Activities: 1st Battlefield Specific.       28         Overall Troll Strategies.       28         Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         Troll Activities Comprehensive Analysis.       30	Overall Troll Strategies	26
Overall Troll Strategies.       28         Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         Troll Activities Comprehensive Analysis.       30	2nd Battlefield: Overall Troll Strategies	27
Weibo Troll Activities: 1st and 3rd Battlefields Specific.       29         1st Battlefield: Overall Troll Strategies.       29         3rd Battlefield: Overall Troll Strategies.       29         Troll Activities Comprehensive Analysis.       30	TikTok Troll Activities: 1st Battlefield Specific	28
1st Battlefield: Overall Troll Strategies	Overall Troll Strategies	28
3rd Battlefield: Overall Troll Strategies	Weibo Troll Activities: 1st and 3rd Battlefields Specific	29
Troll Activities Comprehensive Analysis	1st Battlefield: Overall Troll Strategies	
	3rd Battlefield: Overall Troll Strategies	29
The Infodemic Platform	Troll Activities Comprehensive Analysis	
	The Infodemic Platform	30

# Glossary

Term	Explanation
Troll Account	Taiwan AI Labs employs large language models to analyze accounts on social media platforms, identifying accounts that frequently comment on the same posts together, indicating coordinated behavior (troll behavior). These accounts exhibit long-term similarities in their commenting patterns, suggesting they are not controlled by natural persons but are likely automated or manipulated, thus termed "Troll Accounts."
Troll Group	When Troll Accounts show long-term similarities in commenting patterns and signals, they are grouped into a "Troll Group." These groups can be analyzed for the events they participate in and the targets they manipulate, providing insights into the political forces they may serve.
Battlefield	An event generates extensive news coverage and social media discussions, including posts and videos. Taiwan AI Labs uses large language models to organize these reactions into an "Event," facilitating the observation of social media manipulation related to the event.
Story	Events can develop over time, linking many related events into a continuous narrative. Through classification with large language models, these interconnected events can be organized into a "Story," summarizing the coordinated manipulation and related news across a prolonged period for each story, allowing for the observation of long-term collaborative operations.
Media Volume	Media Volume refers to the amount of media presence, calculated by the number of news reports.
(PRC) State-affiliated Media	(PRC) State-affiliated Media denotes media outlets whose content is controlled or censored by the government of the People's Republic of China.
Social Platform Volume	Social Platform Volume represents the volume on social media platforms, encompassing the total number of comments observed from both troll accounts and regular accounts.
Troll Volume	Troll Volume pertains to the volume of comments made by troll accounts.
User Behavior Features	Analysis of social media data reveals a series of columns that represent user behavior features, such as the 'destination of user interactions' (post_id or video_id), the 'time of user actions', and the 'domain of shared links by users', among others. These data are subsequently utilized for user clustering.
Co-occurrence Features	Co-occurrence features aim to identify users who frequently engage with the same topics or respond to the same articles, appearing together in the same context to create a fabricated volume, a common characteristic of troll accounts. Through this method, we can identify troll accounts and cluster them into troll groups.
User Clustering	Taiwan AI Labs analyzes the relationship between pairs of accounts based on a series of signals and assigns a score. If the score exceeds a certain threshold, a connection is established. If multiple accounts are connected, they are clustered into a troll group.

Group Analysis	Taiwan AI Labs uses Taiwan LLM, a large language model pre-trained in Taiwane dialects, to classify the comments and opinions of troll groups, identify their main narratives, and analyze the primary information manipulated by troll groups and th underlying intentions.	
Topic Engagement	Taiwan AI Labs employs large language models to analyze social platform posts and comments related to news, identifying traces of message manipulation by troll groups. This clarifies which topics troll groups participate in and manipulate discussions on.	

# **Executive Summary**

From August 1 to August 31, 2024, Taiwan AI Labs monitored 114 key battlefields and 960 media reports related to the U.S. presidential election. Among these, 138 reports (14.37%) were linked to Russia and China state-affiliated media. Out of 27,535 identified troll accounts involved in the election discussions, these contributed to a total volume of 363,014 social media comments, with 12.54% (45,535) being troll-related. Three major battlefields, accounting for approximately 63% of observed troll volumes, were:

- 1. Donald Trump's proposal for two additional debates with Kamala Harris after Tim Walz became her running mate.
- 2. A live Twitter (now X) interview between Elon Musk and Trump.
- 3. A CNN interview with Harris and Walz after the Democratic National Convention.

Our in-depth analysis revealed that YouTube #72, Facebook #70033, Twitter #10946, TikTok #144, and Weibo #2562 were the most active troll groups across their respective platforms. These groups aimed to stoke social division, amplify the negative aspects of both parties' candidates, and erode trust in the U.S. democratic system and elections.

Additionally, foreign forces aligned with these troll strategies. Russian state media selectively quoted candidates and reported unverified information to undermine trust in both parties. Meanwhile, Chinese state media emphasized China's successes and the U.S.'s failures to fuel anti-American sentiment and promote a positive image of China. These coordinated efforts seek to dominate the global information battlefield and further weaken public trust in Western democracies.

YouTube #72 is the highest-volume troll group on YouTube, focusing on undermining Trump by portraying him as a racist and xenophobe, and accusing him of planning to cheat, thus questioning the legitimacy of the U.S. electoral process and eroding trust in American democracy.

However, the overall YouTube strategy targets Harris, linking her to criminal groups, damaging her credibility, and questioning her leadership through racial and gender issues. The group also exaggerates Harris and Biden's border policy failures, blaming her for illegal immigration and increased violence, while criticizing her lack of border inspections, casting doubt on her integrity.

These dual strategies against Trump and Harris align with Russian state media tactics, which amplify the candidates' flaws to deepen societal divisions and erode trust in U.S. politics. Russian outlets like *TASS* cited Trump's criticism of Harris's "incompetence," while *RT* reported Harris's accusations against Trump and Musk, claiming that her campaign sent a fundraising email calling out their "lies." However, upon further observation, we found that mainstream media did not cover this email story. Notably, *RT* was banned by Meta on September 17 for deceptive online activities, suggesting its potential involvement in disinformation and foreign political interference.

Facebook #70033 is the most active troll group on Facebook, focusing on attacking the overall U.S. political landscape. They portray Trump as a dictator threatening democracy and Harris as a weak candidate with harmful policies, such as open borders. Musk is also targeted, being tied to Trump and accused of undermining the U.S. electoral system and being unfriendly to the working class.

Meanwhile, the overall strategy on Facebook centers on weakening Trump's image by emphasizing his harm to the working class, highlighting his wealthy ties to Musk, and accusing them of prioritizing

self-interest over the middle and working classes. They also accuse Trump of betraying allies and threatening national security, aiming to sow doubt and mistrust among voters.

Twitter #10946 is the most active troll group on Twitter, employing strategies filled with anti-Semitic and anti-government sentiment. They depict Trump and Musk as threats to democracy and social values, exacerbating societal divisions with accusations of fascism. Harris is also targeted, being accused of colluding with Jewish interest communities to damage her image and erode trust in the U.S. electoral system.

Overall, Twitter's coordinated strategy focuses on exploiting racial and religious issues to intensify social polarization, with around 34% of comments mentioning terms like "Jewish" or "Jews," making Twitter a key platform for amplifying racial concerns. Troll groups link Democratic Party policies to race and religion, aiming to weaken voter trust in the party and challenge the legitimacy of the vice-presidential candidate.

Notably, during the Trump-Musk interview, Twitter's strategy aligned with Chinese state media. Musk mentioned that the interview was delayed by a 40-minute DDoS (Distributed Denial of Service) attack. Troll groups praised Musk's handling of the attack, portraying Twitter as a fair platform. Meanwhile, *Global Times* claimed the attack originated from Western countries like Germany, the U.K., and Canada, aiming to divide the U.S.-European democratic alliances. We observed similar strategies earlier this year when Russia accused Ukraine of being behind Moscow's terrorist attacks, intending to undermine the reputation and image of Western democracies.

Furthermore, *Global Times* used the event to bolster China's international image as a responsible player in cybersecurity, highlighting China's XLab for quickly detecting the DDoS attack with its large-scale threat detection system. According to *Foreign Policy*, China's troll activities on Twitter have been more active than on other social platforms since the COVID-19 pandemic.<sup>1</sup> Democratic vice-presidential candidate Walz's unfriendly stance towards China may have also become a target for Chinese coordinated operations.

TikTok #144 is the most active troll group on TikTok, portraying Trump as a traitor allied with authoritarian regimes like Russia. While they don't directly criticize Harris, they tarnish her image by portraying her supporters as blindly loyal, thereby discrediting both Harris and her supporters.

The overall troll strategy on TikTok aligns with TikTok #144, focusing on damaging Trump's public image while bolstering support for Harris and Walz. Around 16% of comments contain explicit insults targeting Trump and his running mate JD Vance, reflecting the "Divide" tactic from the 5D strategy of information manipulation.<sup>2</sup> Additionally, 42% of comments praise Harris and Walz, with 32% using the Democratic Party's "V" emoji to amplify emotional appeal. Notably, 90% of comments were posted between

Below is the definition of 5D:

- 1. Dismiss: Counter criticisms, deny allegations, and discredit sources.
- 2. Distort: Change the frame and twist the narrative content.
- 3. Distract: Shift attention to different subjects or narratives, or deflect responsibility.
- 4. Dismay: Threaten and intimidate opponents.
- 5. Divide: Create conflict and amplify divisions within or between communities and groups.



<sup>&</sup>lt;sup>1</sup> Allen, B. (2023, July 30). *How China Trolls Flooded Twitter: Beijing Has Learned to Use Russian-Style Disinformation.* Foreign Policy. <u>https://foreignpolicy.com/2023/07/30/china-propaganda-twitter-russia/</u>

<sup>&</sup>lt;sup>2</sup> Foreign Information Manipulation and Interference (FIMI). (n.d.). Cyber Risk GmbH. <u>https://www.disinformation.ch/EU\_Foreign\_Information\_Manipulation\_and\_Interference\_(FIMI).html</u>

midnight on August 7 and midnight on August 8, indicating a concentrated effort to maximize troll groups' impact during specific timeframes.

Weibo #2562 is the most active troll group on Weibo, focusing on anti-American and anti-Semitic sentiment. Their strategy portrays the U.S. as an imperialist power exploiting its own people and other countries under the guise of democracy, using negative Jewish stereotypes to fuel social and racial divisions in America.

Weibo's overall coordinated strategy operates on two aspects. First, they depict the U.S. election as a "civil war," intensifying perceptions of division between the two major parties and exacerbating social polarization. Attacks on Harris leverage gender bias, portraying her as having advanced through illicit means, while also spreading narratives of Jewish control over America. Second, they externalize China's economic issues by claiming that the U.S. fears China's electric vehicle development, criticizing America's malicious competition and suppression of China.

Weibo's strategy mirrors that of Chinese state media. For example, *Reference News* highlighted America's geopolitical disadvantages and criticized its failed attempts to decouple from China's supply chains, reinforcing anti-American narratives that align with Weibo trolls. Additionally, Hong Kong media *Ta Kung Pao* pointed out that although Jews make up only 2% of the U.S. population, they dominate politics, finance, and media, implying Jewish control over the American government and mainstream media. The outlet also accused Biden of blindly supporting Israel due to campaign donations from pro-Israel groups.

After *Ta Kung Pao* published this story, other Hong Kong media outlets like *Dot Dot News* and *Beyond News* followed suit. Mainland Chinese media such as *Xinhua News*, *CRI Online*, and *Guancha News* have also reported on Jewish power and control in America since November last year. These reports reveal a highly coordinated media strategy across Hong Kong, Chinese, and overseas Chinese platforms. By disseminating similar narratives through multiple outlets, they aim to strengthen the credibility of their claims and manipulate audiences' perceptions, fostering distrust of American politics, the Jewish community, and Democratic figures.

In sum, across the five platforms' troll strategies, YouTube #72 primarily targets Trump to undermine his reputation and question the legitimacy of U.S. elections, eroding voters' trust in American democracy. TikTok #144 depicts Trump as a traitor allied with authoritarian regimes, indirectly discrediting Harris by framing her supporters as blindly loyal. Facebook #70033 and Twitter #10946 both attack American democracy and the electoral system on a broader scale, using issues like labor, borders, and immigration to evoke fear and dissatisfaction among voters. Weibo #2562 focuses on anti-American and anti-Semitic narratives, aiming to reduce American support for Israel and discredit the U.S. democratic system. Additionally, the troll strategies of YouTube, Twitter, and Weibo align with those of Russian and Chinese state media, indicating cross-platform collaboration with foreign forces.

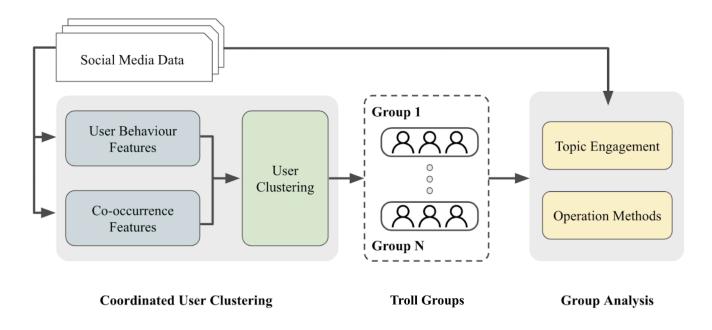
# Methodology

Taiwan AI Labs employs our analytical tool "Infodemic" to examine information operations across different social media platforms.

8

Infodemic

# Building Similarity Nodes Between User Accounts



#### Graph 1: An overview of the coordinated behavior analysis pipeline

Graph 1 depicts the analysis workflow for this report, which consists of three main stages:

- User Feature Extraction: We evaluate and quantify users' behavioral characteristics, converting these traits into user vectors for further analysis.
- User Clustering: Using these user vectors, we create a network of users with similar patterns. We then apply a social platform detection algorithm to identify groups of highly correlated users, classifying them as collaborative units for closer examination.
- Group Analysis: We explore the tactics and strategies of these collaborative units, focusing on their choice of topics, operational methods, and their tendency to either support or oppose certain entities.

### **User Feature Extraction**

To capture user information on social forums effectively, we propose two feature sets:

#### **User Behaviour Features**

Preparing data to highlight user behavior features is essential for deriving significant insights from the dataset, which includes a vast array of details about social media posts (or videos) and user interactions. We gathered a wide variety of raw social media data, subsequently converting it into a structured format with columns that depict various aspects of user behavior. This includes elements like the 'destination of user interactions' (indicated by post\_id or video\_id), the 'timing of user actions', and the 'domains of links shared by users', among others. These user behavior features will undergo further transformation and structuring to facilitate their use in assessing user similarity and for clustering purposes.

#### Co-occurrence Features

Co-occurrence features aim to pinpoint users who often interact with similar topics or engage with identical articles. To quantify these features among users, we utilize Non-Negative Matrix Factorization (NMF), a mathematical method applied in data analysis and for reducing dimensionality. This technique decomposes a given matrix into two or more matrices, ensuring all elements within these matrices are non-negative.

### **User Clustering**

#### **User Similarity Evaluation**

After establishing user features, we move to examine the coordinated relationships among users. For behavioral features, we conduct comparisons of various behaviors between pairs of users and scale the results to a range from 0 to 1. For example, regarding the timing of user activities, we document the hours of activity for each user over a week in a 7x24-dimensional matrix. Subsequently, we calculate the cosine similarity between user pairs based on their activity timing matrices.

In terms of co-occurrence features, cosine similarity is also employed to gauge the resemblance between users' co-occurring vectors. This involves calculating the cosine of the angle between these vectors to determine the degree of similarity in users' responses or actions. This method proves particularly effective in social media studies, enabling the grouping of users by shared behavioral patterns. Users exhibiting high cosine similarity are indicative of a closely coordinated behavior pattern, revealing clusters of users with similar interests or engagement habits.

#### **User Clustering**

Once we've calculated pairwise similarities among users from their features, we proceed to connect user pairs that exhibit a similarity beyond a set threshold by establishing an edge between them, thus forming a user network. Following the creation of this network, we employ the Infomap algorithm to cluster it. Infomap is a social platform detection algorithm that identifies structures within networks based on the flow of information. Social platforms discovered within this network are subsequently classified as troll groups for further analysis in subsequent sections. This method allows us to systematically identify and categorize groups of users exhibiting coordinated behavior patterns, which are indicative of troll activity.

### **Group Analysis**

#### **Opinion Clustering**

To effectively decipher the narratives put forth by each user group, we utilized a text clustering approach on the comments made by troll groups. By leveraging a pre-trained text encoder, we transformed each comment into vector form. We then employed a hierarchical clustering algorithm to organize similar posts into cohesive groups. These clustered groups of posts will be analyzed further in subsequent discussions, providing a structured framework to examine and understand the narratives and themes prevalent within troll group communications.

#### Stance Detection and Narrative Summary

Large Pretrained Language Models have showcased their effectiveness in identifying entities within textual content and providing insightful explanations about them. This functionality aids in grasping the key components of discourse, especially in analyzing the influence of comments and evaluations on these recognized entities.

In our analysis, we utilize Taiwan LLM for text examinations. Taiwan LLM is a substantial language model that has been pre-trained on a corpus predominantly in the native Taiwanese language. It has demonstrated exceptional ability in understanding Traditional Chinese and is particularly adept at identifying and interpreting topics and entities related to Taiwan. Specifically, we employ Taiwan LLM to discern essential topics, entities, and names of organizations mentioned in each comment. Additionally, it evaluates the comment author's perspective towards these entities, classifying their sentiment as positive, neutral, or negative. This method is systematically applied across all clusters of opinions.

Ultimately, we aim to calculate the proportion of each primary topic or entity mentioned within the opinion groups, alongside the percentage of positive or negative sentiment linked with each. Moreover, we generate summaries for each opinion cluster using the language model, which assists data analysts in quickly comprehending the broad overview of the event and the prevailing sentiments within the discourse.

# Data Coverage

The study analyzed data from August 1, 2023, to August 31, 2024. During this period, we tracked 114 battlefields and recorded 960 instances of media engagement related to keywords associated with the U.S. Presidential Election. Of these instances, 14.37% were linked to media outputs from China and Russia. The analysis identified 27,535 troll accounts actively participating in online discussions across various social media platforms. Out of a total social platform volume of 363,014, 12.54% were attributable to these troll accounts.

Battlefields	Media Volume	(PRC) State-affiliated Media (%)	Troll Accounts	Social Platform Volume	Troll Volume (%)
114	960	138 (14.37%)	27,535	363,014	45,535 (12.54%)

Table 1: Analyzed data quantity of the U.S. Presidential Election in August, 2024 (from <u>https://infodemic.cc</u>)

# Timeline

Date	Top Troll Participated Battlefields (accumulated %)
August 2024	<ul> <li>Donald Trump's proposal for two additional debates with Kamala Harris after Tim Walz became her running mate (25%)</li> <li>A live Twitter (now X) interview between Elon Musk and Trump (45%)</li> <li>A CNN interview with Harris and Walz after the Democratic National Convention (63%)</li> </ul>



1	0	
	/	
	<u></u>	

\*The number associated with each battlefield represents the cumulative volume of troll activities. Table 2: Analyzed top battlefields of the U.S. Presidential Elections in August, 2024 (from <u>https://infodemic.cc</u>)

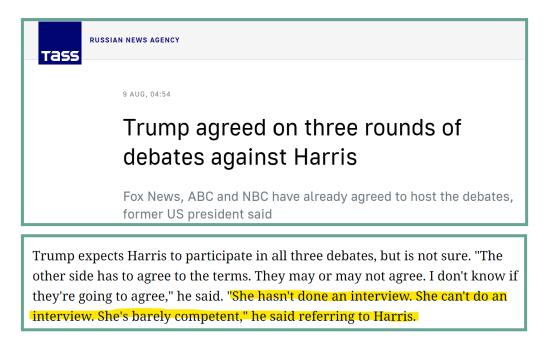
# Summary of Main Battlefields & Examples of Foreign Forces

### Summary of 1st Battlefield

On August 6, Tim Walz officially became the Democratic vice-presidential candidate. Three days later, Trump announced that Harris had agreed to participate in the September debates, with ABC confirming the first one for September 10. During this time, Trump criticized Harris for her weak performance in both fighting crime and protecting the U.S.-Mexico border, labeling her as "far-left" while claiming she would be harmful to Israel and the Jewish people.

#### Example of Foreign Forces: Russian State Media

The Russian state news agency *TASS* reported on Trump's criticism of Harris, quoting him as saying, "She hasn't done an interview. She can't do an interview. She's barely competent." The report only highlighted Trump's doubts about Harris's capabilities, without mentioning her response or views, aiming to emphasize Trump's criticism while downplay Harris's stance, thus shaping a negative perception of her.



Graph 2: TASS outlets regarding Trump's criticism of Harris (from https://tass.com/world/1826867)

# Infodemic

### Summary of 2nd Battlefield

On August 13, The interview between Trump and Musk, live streamed on Twitter, was delayed by about 40 minutes due to the so-called "DDoS attack." Later, during the interview, Trump accused Biden's withdrawal from the presidential race of being a "coup" and expressed anger over Harris replacing Biden as the candidate. He also mentioned the assassination attempt against him, calling it "unpleasant."

### Example of Foreign Forces: Chinese State Media

Chinese state media *Global Times* reported that China's large cybersecurity company XLab quickly detected a DDoS attack against Twitter using its large-scale threat detection system. The report also emphasized that the command servers for the attack were primarily located in the UK, Germany, and Canada, attributing the source of global cyber threats to Western countries. This reinforced China's responsible international image in the field of cybersecurity while undermining the legitimacy of Western nations.



The online event, which was delayed 40 minutes after Musk cited a "DDOS attack" on X's servers, lasted nearly two hours.

XLab, one of the largest cybersecurity company in China, said that using its large-scale threat perception system promptly, it detected the recent attack targeting the X platform.

Gong Yiming, head of the laboratory, said they observed that four Mirai botnet controllers were involved in this attack. Additionally, other attack groups also participated using reflection attacks, HTTP proxy attacks, and other methods.

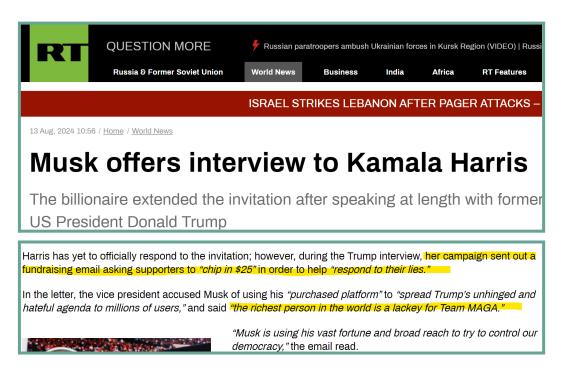
Monitoring data indicates that the four botnet controllers launched at least 34 waves of DDoS attacks. The four command servers were primarily located in the UK, Germany and Canada. The attack period coincides with the delay in the interview start time, XLab said in its official WeChat account.

Graph 3: Global Times outlets regarding the DDoS attack targeting Twitter (from <a href="https://www.globaltimes.cn/page/202408/1317975.shtml">https://www.globaltimes.cn/page/202408/1317975.shtml</a>)



# Example of Foreign Forces: Russian State Media

Russian state media *RT* reported that Harris's campaign sent a fundraising email during the Trump-Musk interview, asking supporters to "chip in \$25" to help "respond to their lies." The report also highlighted Harris's statement in the email: "Musk is using his vast fortune and broad reach to try to control our democracy. The richest person in the world is a lackey for Team MAGA." However, further investigation revealed that mainstream media did not cover this email. Notably, *RT* was banned from Meta on September 17 for using deceptive tactics online, suggesting that *RT*'s activities may be part of information manipulations aimed at interfering in foreign politics.



Graph 4: RT outlets regarding the unverified fundraising email sent by Harris's campaign to attack Trump and Musk (from <u>https://www.rt.com/news/602560-musk-offers-kamala-harris-interview/</u>)

# Summary of 3rd Battlefield

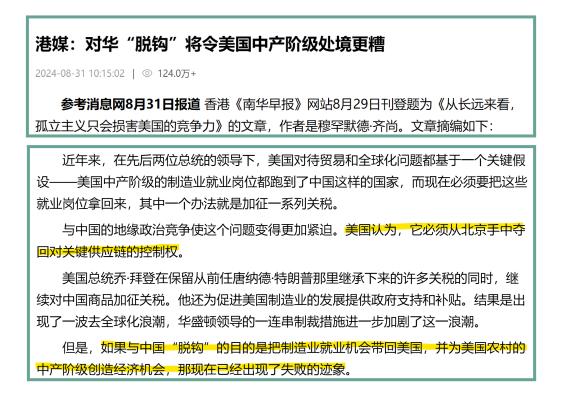
On August 29, CNN anchor Dana Bash conducted a joint interview with Harris and Walz. This marks Harris's first public appearance since replacing Biden as the Democratic presidential candidate, making this interview potentially influential in shaping voters' perceptions of Harris.

# Example of Foreign Forces: Chinese State Media

China's state news agency, Xinhua's *Reference News*, highlighted the geopolitical competition between the U.S. and China. The report stated, "The U.S. believes it must regain control of key supply chains from China" and criticized that "U.S. efforts to decouple from China, bring manufacturing jobs back home, and create economic opportunities for the rural middle class are already showing signs of failure." *Reference News* also criticized America's tariff-based strategy, arguing that this aggressive economic confrontation has only worsened the U.S. economy without achieving any gains through these competitive tactics.

Infodemic





Graph 5: Reference News outlets regarding China's accusations of malicious competition against the U.S. (from <u>https://ckxxapp.ckxx.net/pages/2024/08/31/f0f14200b4484b939470c52f168f7318.html</u>)

# **Cross-Platform Analysis of Main Troll Groups**

We observed that YouTube #72, Facebook #70033, Twitter #10946, TikTok #144, and Weibo #2562 are the most active troll groups on their respective platforms. Below is an in-depth analysis of their troll narratives and strategies.

## Troll Group: YouTube#72

YouTube #72, observed by AI Labs, is the most active troll group on YouTube, with 4,355 accounts participating in 5,011 stories recently.

Troll Accounts	Overall Operated Stories	Target entities
4,355	5,011	3,745

Table 3: Summary of YouTube #72 (from https://infodemic.cc/en/collab/youtube@72)

#### Narrative Strategies

YouTube #72's narratives exhibit a strategic contrast in sentiment towards Trump and Harris. For Trump, the group discredited him by leveraging issues related to labor, gender, and race, while undermining trust in democratic institutions. They use personal attacks to label him as racist and xenophobic, invoke fears of economic collapse, and suggest his policies would harm women. By questioning the electoral process's legitimacy and accusing Trump of planning to cheat, these tactics are designed to polarize opinions, mobilize opposition, and erode public confidence in U.S. democracy. In contrast, the



comments about Harris reflect a supportive sentiment, highlighting her strengths, qualifications, and positive attributes. They praise her resilience, endorse her policies, and call for voter support, portraying her as a capable leader and contrasting her favorably with Trump, aiming to mobilize support and reinforce positive perceptions of her candidacy.

For instance, narratives on "border and immigration issues" reveal a critical view of Trump, accusing him of obstructing effective immigration legislation and worsening the border crisis for political gain. Critics portray him as largely responsible for the negative impacts associated with immigration. In contrast, comments about Harris present a positive view, highlighting the Biden-Harris administration's efforts to improve border security and address immigration concerns. Supporters emphasize that the current administration has made significant progress in managing the border and contrasts this success with the failures attributed to Trump's policies.

#### **Operated Narratives**

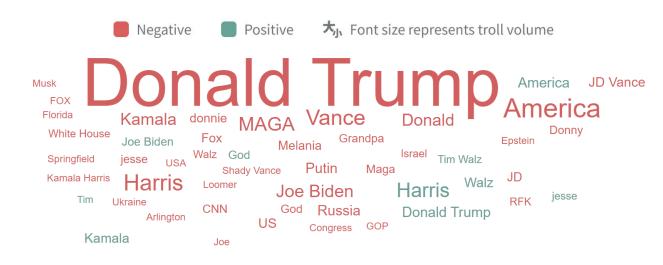
Entity (Sentiment)	Key Narratives Overview	
Trump –	<ul> <li>The only way Trump can win is to cheat. We have to vote for a landfall to elect Harris/Walz!!! VOTE BLUE up and down the ballot!!!</li> <li>The only reason the public distrusts the system is because Trump has spent 8 years telling his cult.</li> <li>If Trump gets reelected, the working population can say goodbye to any happiness they may possess.</li> <li>Trump is a racist, antisemitic, homophobic, xenophobic criminal rapist and felon.</li> <li>Women will be discriminated against for abortion and for not having kids and working. What about childless working men JD, are you going to restrict them too?</li> <li>The glue that holds Trump and MAGA together is racism and misogyny.</li> <li>Do people not understand that politicians are using anti-immigration rhetoric to rile up their constituents just to get them angry enough to vote for them? In the US, the GOP has been doing it since the early 1900s.</li> </ul>	
Harris+	<ul> <li>The only way Trump will win is to cheat. We have to vote for a landfall to elect Harris/Walz!!!</li> <li>The MAGA plan is to steal the election. Polls don't really matter. If Harris doesn't win the election it's because they were successful.</li> <li>What's the plan to keep Republicans from stealing the vote?</li> <li>Kamala Harris doesn't want to take our guns. There is nothing wrong with common sense gun laws.</li> <li>If MAGA and GOP's minds go immediately to sexual crudeness, it shows a propensity in them to rape. For them, women are to be used or abused - which is why they want control over women's bodies. But every attack on VP Harris by Donald Trump immediately backfires against him.</li> <li>Nothing scares Trump more than a strong, educated woman of color like Kamala Harris. I'm going to enjoy seeing him lose to her in November.</li> <li>Yes, focus on the damn border that is VASTLY more secure under the Biden administration than it ever was under the orange loser's failed term. Hundreds of times more drugs stopped and arrests at the border. Things that were flowing in freely during the orange</li> </ul>	

Infodemic

	idiot's term are NOW being stopped.	
--	-------------------------------------	--

Table 4: Key Narratives Overview of YouTube #72 (from https://infodemic.cc/en/collab/youtube@72)

# Targets of Troll Activities



Graph 6: Troll activity targets of YouTube #72 (from https://infodemic.cc/en/collab/youtube@72)

## Troll Group: Facebook#70033

Facebook #70033, observed by AI Labs, is the most active troll group on Facebook, with 385 accounts participating in 7,368 stories overall.

Troll Accounts	Operated stories	Target entities
385	7,368	1,384

Table 5: Summary of Facebook#70033 (from https://infodemic.cc/en/collab/facebook@70033)

### Narrative Strategies

Facebook #70033 employs a fear-based strategy, portraying Trump and Musk as existential threats to democracy, the middle class, and marginalized communities. Trump is depicted as a convicted felon with authoritarian tendencies, deeply tied to corruption and foreign alliances like Putin, and indifferent to the rights of women and minorities. Musk is characterized as using his platform to incite civil unrest. Both are accused of exploiting the federal government to oppress America's working class and poor. The narrative emphasizes identity politics, urging minorities to vote blue, and fuels social polarization by framing the election as a battle between freedom and tyranny, deepening divisions along racial, economic, and moral lines.

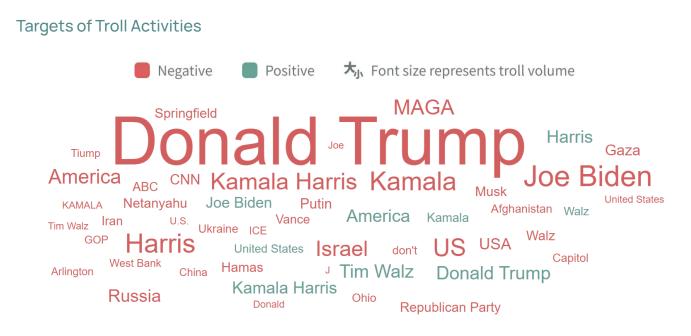
On the other hand, Facebook #70033 uses a coordinated strategy to undermine Kamala Harris by labeling her as the ineffective "Border Czar" responsible for harmful immigration policies. The narrative portrays Harris as enabling a flood of illegal immigration that allegedly displaces Black and Hispanic workers, creating financial burdens for states. By emphasizing her refusal to debate on Fox News and

participate in tough interviews, the group frames her as weak and cowardly, unfit to face global leaders. The criticism extends to media outlets like CNN, accusing them of protecting Harris by editing her interviews to hide mistakes, thus calling into question their credibility. This strategy focuses on stirring racial and economic anxieties while reinforcing the narrative that Harris, and by extension the Democratic Party, is incapable of handling critical national security issues like border control.

### **Operated Narratives**

Entity (Sentiment)	Key Narratives Overview
Trump and Musk –	<ul> <li>Why is it when I read the comments from the Trump/Republicans all I get is feelings of hate, fear, and anger? About reducing the rights and freedoms of Americans.</li> <li>Trump is the one with DEEP ties to Putin, their oligarchs and the financial mess he still finds himself entangled in as admitted by his sons. But, as always, it's all about projection with this convicted felon of ours where he accuses everyone else of the sins he commits on a daily basis.</li> <li>Neither Trump nor Musk give a crap about America's hard working middle class and working poor. They just want to change the Federal Government so it steps on the throats of America's workers.</li> <li>Elon Musk yesterday on his disinformation tool formerly called Twitter: «Civil war is inevitable»! Shouldn't such incendiary anti-democratic calls by a platform owner lead to the immediate arrest of the owner and the closure of the platform?</li> <li>if you're African American, Latino or Asian, Jew, Muslim or Native American, and want to be safe and treated equally, if you don't think only white Christian men are qualified to be in leadership positions VOTE BLUE</li> </ul>
Harris –	<ul> <li>The millions of Illegal Aliens pouring into our Country because of Comrade Harris, our "Border Czar," and her Open Border Policies, are taking the jobs of our Black and Hispanic workers and families.</li> <li>The DNC has armed guards, barbed wire, cement barricades, checkpoints, security cameras, drones &amp; hydraulic iron gates protecting Border Czar Harris.</li> <li>Why didn't Kamala discuss the following last night? After all she was the border Czar. One states financial burden. Now multiply that times 50Kamala doesn't care. If elected expect greater illegal immigration.</li> <li>CNN's media credibility is on the line. Let's see if Dana Bash will ask tough questions. One question should be if Kamala Harris is now for building the border wall? She criticized any construction of a border wall as being UN-AMERICAN during the Trump administration.</li> <li>Kamala Harris is not a tough woman because she is afraid of tough questions. She may go on CNN, MSNBC or The View because she knows that they will be very soft on her. She'll never have the guts to go on FoxNews.</li> </ul>

Table 6: Key Narratives Overview of Facebook #70033 (from https://infodemic.cc/en/collab/facebook@70033)



Graph 7: Troll activity targets of Facebook #70033 (from https://infodemic.cc/en/collab/facebook@70033)

### Troll Group: Twitter#10946

Twitter #10946, observed by AI Labs, is the most active troll group on Twitter, with 984 accounts participating in 6,241 stories recently.

Troll Accounts	Operated stories	Target entities
984	6,241	2,530

Table 7: Summary of Twitter #10946 (from https://infodemic.cc/en/collab/twitter@10946)

#### **Narrative Strategies**

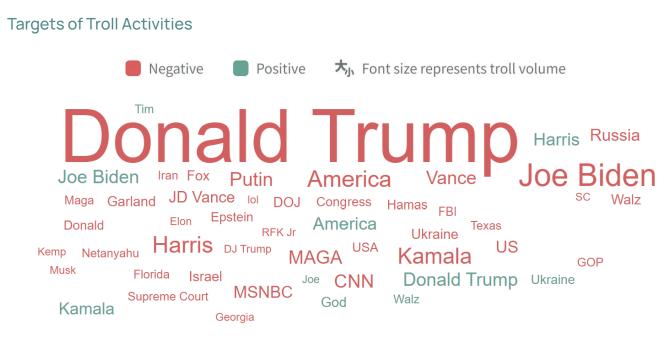
For Donald Trump and Elon Musk, Twitter #10946 uses a strategy to paint them as threats to American democracy. They depict Trump as a misogynist whose ego is threatened by successful women, arguing that his return to power would solidify MAGA fascism—a claim they say the media irresponsibly supports by normalizing him. Similarly, Musk is portrayed as a billionaire with ambitions to transform the U.S. into an oppressive regime akin to Russia or North Korea. Both are labeled as traitors, with Musk specifically criticized for his involvement with Starlink, which is accused of aiding Russia.

In targeting Jewish figures and Kamala Harris, Twitter #10946 promotes anti-Semitic conspiracy theories and political criticism. They claim that Jewish groups like Mossad and AIPAC have undue influence over U.S. politics and elections, alleging widespread election rigging and portraying the U.S. government as corrupt. Harris is criticized for supposedly aligning with these groups, despite her Jewish family connections, and accused of anti-Semitism. This narrative aims to undermine trust in the U.S. government by suggesting it is controlled by foreign interests and plagued by internal corruption.

# **Operated Narratives**

Entity	Key Narratives Overview	
Trump and Musk –	<ul> <li>If we survive the rise of MAGA fascism, the media's decision to normalize Trump will be cited by scholars as a shameful example of journalistic cowardice and dereliction of duty.</li> <li>Trump is a sexist pig and the way he talks about women who are more educated and accomplished than him because it hurts his frail male ego. As women we simply don't care what he thinks about us. Our job as women is to make sure he loses in November.</li> <li>Absolutely. Musk like the other billionaires are fixated on turning America into an oppressive society I, just like Russia, China, NK.</li> <li>No, I will not be wasting my time listening to this liar and his minion Elon who BTW supplied the Russians with starlink. They're both TRAITORS.</li> <li>If anyone gave technology info to Russia, it was the convicted felon!</li> </ul>	
Jewish – Harris –	<ul> <li>The US government is crawling with Mossad. Both #ButcherBiden, #HolocaustHarris take orders directly from #AIPAC.</li> <li>Israeli Jewish contractors boast they've rigged more than 30 elections. That's just this 1 company. USA sponsors #GenocideinGaza, it's fair to say @ this point ALL of USA's elections are rigged.</li> <li>It's called theft of the education budget. If Americans understood they were duped by the Jewish banker Rothschild who created the Scofield Bible, they'd flush Evangelical Christianity down the toilet. Soon, Americans will live under open Jewish tyranny, Zionist Christians teach.</li> <li>Her student evaluations for yrs have noted her anti-semitism @UofMiami so this is just so you can say you did something &amp; continue to ignore what she has been doing enough times to elicit multiple reviews noting her bigotry &amp; Jewish student being warned to not take her classes.</li> <li>That fool is unbelievable! I guess he doesn't realize that her husband is Jewish and that they celebrate Hannukah and Christmas!</li> </ul>	

Table 8: Key Narratives Overview of Twitter #10946 (from https://infodemic.cc/en/collab/twitter@10946 )



Graph 8: Troll activity targets of Twitter #10946 (from https://infodemic.cc/en/collab/twitter@10946)

# Troll Group: TikTok#144

TikTok #144, observed by AI Labs, is the most active troll group on TikTok, with 292 accounts participating in 2,144 stories recently.

Troll Accounts	Operated stories	Target entities
292	2,144	352

Table 9: Summary of TikTok #144 (from https://infodemic.cc/en/collab/tiktok@144)

## Narrative Strategies

For Trump, TikTok #144's strategy focuses on portraying him as a traitor and ally of authoritarian regimes. The narratives accuse him of prioritizing the wealthy over average Americans, undermining social security, and betraying democratic values. This portrayal aims to diminish his support among key voter groups like women, union members, and veterans by highlighting his alleged failures and disregard for essential policies.

For Kamala Harris, their strategy involves reinforcing her as a positive and competent leader. The narratives emphasize her achievements, such as economic growth and reduced crime, and position her as a unifying force against Trump's alleged authoritarianism. By contrasting her leadership with Trump's failures, the content aims to rally support for Harris and diminish criticisms against her. The approach seeks to present Harris as the better choice for America's future, thus encouraging voters to support her in opposition to Trump.

## **Operated Narratives**

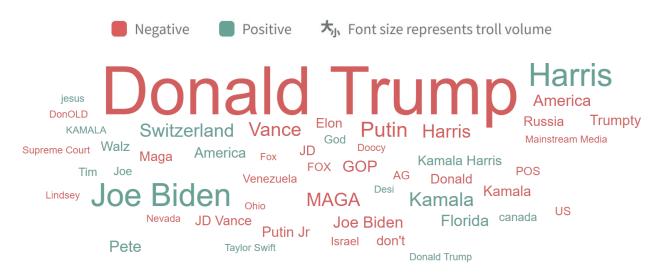
Entity	Key Narratives Overview	
	- ,	



Trump –	<ul> <li>Trump gives tax cuts to billionaires and does nothing to help the American people.</li> <li>TRAITOR TRUMP CONGRATULATES DICTATOR PUTINLET THAT SINK IN O O O O O O</li> <li>Trump only cares about the wealthy &amp; wants to destroy social security</li> <li>Latinos supporting Trump are brain dead, every single time the Dems try to help immigrants, the reps block or don't let those laws pass, just like the one run, ppl married to a citizen, reps blocked it.</li> <li>Trump's toast. He had already lost the women's vote, Union voters, &amp; now he's unquestionably lost the veteran's vote O.</li> </ul>
Harris+	<ul> <li>Trump's a wannabe Floridian dictator. We don't want this as America's future. We need to all unite and vote for Harris</li> <li>Ah yes Harris of American decline. Meanwhile under her current leadership we have the greatest economy, drilling the most oil ever, lowest crime, etc.</li> <li>Putin realized 2 weeks ago he had to reprogram all the bots cuz Harris jumped in. He also knows Trump is going to lose.</li> </ul>

Table 10: Key Narratives Overview of TikTok#144 (from https://infodemic.cc/en/collab/tiktok@144)

### **Targets of Troll Activities**



Graph 9: Troll activity targets of TikTok#144 (from https://infodemic.cc/en/collab/tiktok@144)

## Troll Group: Weibo#2562

Weibo #2562, observed by AI Labs, is one of the most active troll groups on Weibo, with 916 accounts participating in 3,603 stories recently.

Troll Accounts	Operated stories	Target entities
916	3,603	488



Table 11: Summary of Weibo#2562 (from https://infodemic.cc/en/collab/weibo@2562)

### Narrative Strategies

Weibo #2562 aims to paint the U.S. as a harmful force that deliberately keeps China behind and mistreats its own lower-class citizens. They criticize the U.S. for being hypocritical and destructive in its foreign policies, suggesting that its proclaimed values of democracy and freedom are merely deceptive fronts. This strategy seeks to undermine trust in American ideals and provoke skepticism about its global actions.

Regarding Jewish people, Weibo #2562 employs inflammatory language to spread negative stereotypes and conspiracy theories. They portray Jewish individuals as greedy and harmful to global well-being, suggesting that they are a significant source of societal problems. This strategy is designed to foster distrust and animosity towards Jewish communities by framing them as deceitful and self-serving.

#### Operated Narratives

Entity	Key Narratives Overview	
USA –	<ul> <li>美国警坚决要中国继续落后,就这么简单,你同意美国的这个要求吗?</li> <li>美国的底层人民,只配成为美国统治阶级用来试药、摧残、抛弃的炉渣和炮灰。可惜手里的枪,一群怂货。</li> <li>就像老美发动战争或者在别人的国土上搞颜革也是打着推销民主和自由的旗帜一样啊!</li> <li>反者道之动。竞争只能是手段,合作才是目的。老美该醒醒了。</li> </ul>	
Jewish –	<ul> <li>民主是一个好东西,爱情一样是美丽的,但是民主,加上犹太,加上钱,那就是全世界的毒药。</li> <li>为什么叫东方马脑炎?东方从来没人得过,应该叫犹太马脑炎,犹太新冠病毒。</li> <li>犹太人是利己主义,是白眼狼,你有食物准备分它一半的时候,它还想你那一半。</li> <li>人家从来就没虚伪过,犹太人不给他们发声的机会,又大量引进移民。</li> </ul>	

Table 12: Key Narratives Overview of Weibo #2562 (from https://infodemic.cc/en/collab/weibo@2562)



### Targets of Troll Activities

Graph 10: Troll activity targets of Weibo #2562 (from https://infodemic.cc/en/collab/weibo@2562)

# **Cross-Platform Analysis of Overall Troll Activities**

In addition to the most active troll groups on each platform, we conducted a comprehensive analysis of the overall troll activities across platforms while highlighting their representative narratives and strategies regarding specific battlefields.

## YouTube Troll Activities: 3rd Battlefield Specific

#### Border Issues and Political Dynamics

Border issues have consistently been a key concern for U.S. voters. Initially, Harris supported open border policies, but in her campaign speech at the end of July, she focused on women's reproductive rights, healthcare access, and gun violence, omitting immigration. The following day, Trump criticized her, claiming that "illegal immigrants are pouring into the U.S. under Border Czar Harris." The term "Border Czar" gained traction in March 2021 when Republicans criticized her handling of Central American immigration. On August 30, during her first media interview since launching her campaign, CNN anchor Dana Bash questioned her shift in policy positions, while Harris maintained that her values regarding border security had not changed.

### **Overall Troll Strategies**

Troll groups employed various strategies to undermine Harris's image and reputation. They promoted conspiracy theories, claiming she was being exploited by drug cartels and anti-American individuals, attempting to associate her with criminal groups to damage her credibility. They also raised racial and gender issues, questioning her Black identity, belittling her professional achievements, and alleging that she relied on men to gain power, creating a trust crisis among voters regarding her identity and leadership.

Additionally, they exaggerated claims that Harris and Biden's border policies were responsible for an influx of illegal immigrants, terrorists, and violent criminals, aiming to instill fear and dissatisfaction among voters about national security. They highlighted Harris's lack of on-site border inspections, accusing her of lying and using the term "Border Czar" to question her integrity and leadership capabilities. Conversely, the troll groups expressed support for Trump's border closure, leveraging bipartisan appeal by suggesting that Trump might include Democratic figure Robert F. Kennedy Jr. in his cabinet, thus showcasing his party inclusivity.

	Key Narratives Overview
Harris –	<ul> <li>Harris still can't find the border.</li> <li>Kamala Harris is used by the cartels and by the people that hate America.</li> <li>She's a liar! She's never gone to the Border and Dana doesn't follow up with the questions we want to hear.</li> <li>So she's saying SHE HASN'T CHANGED, while she HAS CHANGED.</li> <li>Kammie, our Border Czar, has invited 20,000,000 illegal aliens into our country.</li> <li>How many terrorists and violent criminals have just walked into America thanks to Biden and Harris open border policy?</li> <li>Kamala has zero accomplishments, her parents were both marxist-communists, she sounds like a communist anchor baby to millions of Americans.</li> </ul>
Trump +	<ul> <li>Trump will close the border.</li> <li>Trump may put Democrat RFK Jr in his cabinet.</li> <li>Trump 2024. Bring back cheap gas, secure borders &amp; no new wars.</li> <li>What a flip flopper! May as well vote TRUMP! Close the border, Fracking and at least with Trump we will get some money in our pockets!</li> <li>She said an interview that Trump was responsible for the border crisis, but she takes Trump policy of building a border wall 20 20 20</li> </ul>

Table 13: Key Narratives Overview regarding YouTube in the third battlefield (from <u>https://infodemic.cc/en/story/scf8e6e055ad?uncover=troll</u>)

# Facebook Troll Activities: 2nd Battlefield Specific

### Labor Issues and Political Dynamics

Pennsylvania, Michigan, and Wisconsin, key swing states in the U.S. "Rust Belt," heavily rely on the steel, coal, and automotive industries, making labor rights issues significant for voters. Traditionally, the working class in these states has leaned Democratic, but economic struggles and emerging social issues have transformed them into crucial battlegrounds. The support of union leaders can significantly influence voter intentions.

### **Overall Troll Strategies**

Troll groups on Facebook leverage the Wagner Act to accuse Trump of illegal actions, emphasizing how his policies undermine workers' rights and diminish his credibility among the working class. They portray him as a "racist" to provoke resentment among multicultural voters.

Additionally, they highlight the wealthy backgrounds of Trump and Musk to enhance their perceived unfriendliness toward the working class. By positioning Trump against workers and the middle class, they suggest he aligns with "billionaires and corporations," implying he prioritizes personal gain over national welfare. Furthermore, these troll groups accuse Trump of betraying democratic allies and threatening the U.S. Constitution, aiming to amplify voter skepticism and distrust regarding his potential risks to national security and global freedom.

#### Key Narratives Overview

- No Trump campaign. This isn't a "frivolous lawsuit." That's what your boy is known for. This was a direct violation of the Wagner Act (National Labor Relations Act of 1935). By definition, unlawful. It's time the working men and women who think you're on their side read up on the Wagner Act.
- Of course, he will be with musk, the wealthy take care of the wealthy and themselves of course, neither one cares about the average person.
- Neither Trump nor Musk give a crap about America's hard working middle class and working poor.
- So besides Trump being a court proven lifelong conman & criminal, an aged moral and mental dumpster fire, a proven danger to our country and its constitution he stands against all Americans except for billionaires and corporations.
- Trump is gutless enough to sell off Allies of America to enemies of the Free World.
- Always bashing immigrants. What a racist piece of . I guess he wants to bring his brilliant policies back that resulted in no immigrants available to do farm work.

Table 14: Key Narratives Overview regarding Facebook in the second battlefield (from https://infodemic.cc/en/story/s248249b4465?uncover=troll)

## Twitter Troll Activities: 1st and 2nd Battlefields Specific

#### 1st Battlefield: Racial Issues and Political Dynamics

Following Harris's candidacy, controversy emerged within the Democratic Party regarding the selection of her vice-presidential running mate. The decision not to choose Pennsylvania Governor Josh Shapiro, a prominent Jewish Democratic leader, sparked widespread discussion and scrutiny. After Walz was officially named as the vice-presidential candidate, CNN political analyst Van Jones questioned whether this choice reflected internal anti-Semitism within the Democratic Party, further highlighting divisions and racial tensions within the party.

#### **Overall Troll Strategies**

Following Jones's comments, discussions about the Jewish community surged on social media. On Twitter, 34% of comments included keywords like "jews" and "jewish," reflecting concerns about anti-Semitic sentiments within the Democratic Party. Unlike other platforms, where mentions were minimal, Twitter emerged as the primary venue for these discussions, indicating that users were more inclined to exploit this controversy to intensify social polarization and racial conflict. Additionally, they aimed to highlight internal divisions within the Democratic Party, seeking to convince voters that anti-Semitic sentiments exist, thereby undermining trust in the candidate.

#### Key Narratives Overview

- Shapiro was never going to be picked because he is Jewish, it was all a charade. Dems want to please the Hamas wing of the party.
- Tim Walz is only half Jewish. I guess that's the new cut off for the Democratic Party.
- Now she's threatening people. This woman is a Jew hating piece of trash. "Democratic Rep. Cori Bush of Missouri used her concession speech this week to blast the nation's largest pro-Israel group, warning them to 'be afraid." (the "she" is about Harris)
- What is very telling about Kamala Harris and her electorate is that she dropped Shapiro because his being Jewish was somehow "offensive" to that electorate If being Jewish is a reason for some Democrats taking offense, then yes it is insulting to Jews. It is despicable a a solution of the solution of the
- Josh Shapiro was not chosen of course, he is a Zionist Jew, i.e., a useful idiot in the hands of White Supremacists Christians' Zionists. Christians' Zionists are very anti-Semitic. Shapiro should wake up now.

Table 15: Key Narratives Overview regarding Twitter in the first battlefield (from <a href="https://infodemic.cc/en/story/s17f0133c2f8?uncover=troll">https://infodemic.cc/en/story/s17f0133c2f8?uncover=troll</a>)

#### 2nd Battlefield: Overall Troll Strategies

In terms of the Trump-Musk interview, troll groups on Twitter expressed support for Trump, emphasizing his political significance and influence, and described their dialogue as positive, neutral, successful, and impactful. They sought to undermine the mainstream media's negative narrative about Trump, suggesting the conversation showcased a different side of him while portraying the media as biased toward the Democratic Party and Twitter as a fair platform. Additionally, they linked Trump and Musk to amplify their political influence, praising Musk's intelligence and leadership during the interview, while framing his layoffs at Twitter as a successful business strategy.

However, some narratives criticized Trump, questioning his role as a source of misinformation, his age, and his ties to Putin. They suggested his policies align with fascism and authoritarianism, labeling him a threat to European and global security. Furthermore, they depicted both Trump and Musk as wealthy individuals disconnected from the struggles of ordinary people, focusing solely on their own interests.

Key Narratives Overview		
Trump and Musk+	<ul> <li>It felt like a conversation and showed many people a different version of Trump than they are used to the media portraying him.</li> <li>It was a moderate discussion that might sway moderate voters. Nothing contentious.</li> <li>The Trump X Spaces event was hit by a DDOS against X servers.</li> <li>1.5 million listeners. More than all MSM combined for the day.</li> <li>If the Republicans had called Kamala 'weird' it would have been labeled as hate speech. There are different sets of Rules that apply because the media carries the water for the Democrats to do or say anything.</li> <li>@elonmusk -thank you from the bottom of my heart. I've been feeling lately that we are losing our country- your conversation with Trump has re-energized me to work harder getting the votes! There's hope.</li> <li>Bro Elon is a literal genius so if you're at home eating ramen noodles, thinking about voting for Kamala Maybe you should</li> </ul>	

# Infodemic

	1	
٢.		

	listen to Musk. Vote for Trump.
Trump and Musk –	<ul> <li>The confirmation that Drumpf REALLY DOES BELIEVE that 'asylum' = 'mental health facilities are sending their patients over the border.'</li> <li>Two billionaires that don't have to work having a discussion about how to make America betterhow awful!</li> <li>Autocrat talk for a Gestapo Nazi economic administration apparatus.</li> <li>Who 'cheers' over 'firing workers'? Trump does NOT support the working class!</li> <li>This is proof that the former US president is supported by Vladimir Putin who attacked Ukraine, he endangers all of Europe now!</li> </ul>

Table 16: Key Narratives Overview regarding Twitter in the second battlefield (from <u>https://infodemic.cc/en/story/s248249b4465?uncover=troll</u>)

# TikTok Troll Activities: 1st Battlefield Specific

#### Overall Troll Strategies

Regarding the proposed debates offered by Trump, our analysis revealed that approximately 16% of TikTok troll narratives used the "Divide" tactic from the 5D strategy of information manipulation, employing explicit insults to attack Trump and Vance. In contrast, around 42% of comments supported Harris and Walz, indicating a clear bias from TikTok troll groups. Notably, about 32% of comments included the "V" emoji, the highest proportion among the five platforms. This blue symbol, representing the Democratic Party, further intensified the emotional appeal of pro-Harris narratives. While a few comments attempted to defend Trump and Vance by mocking Harris and Walz's competence, these were insufficient to counter the volume of attacks on Trump.

Additionally, we found that 90% of comments were posted between midnight on August 7 and midnight on August 8. This concentrated activity during a specific time frame, followed by a rapid cessation, aligns with the troll group's strategy to maximize impact in a short period.

Key Narratives Overview

- Harris 
   Harris
- The Trump/Vance ticket is about hate and division. It's a losing ticket! V
- Trump just doesn't want to get fact checked and backed out first. If he's not hiding behind Fox News he can't open his mouth because then he will continue to dig his hole.
- The felon and the couch f\*cker versus the prosecutor and America's dad. We're gonna enjoy this win in November!
- Trump like you give a fuck about Biden, you are scared because now you have someone who's young, smart and not going to take your shit you racist mfucker

Table 17: Key Narratives Overview regarding TikTok in the first battlefield (from <a href="https://infodemic.cc/en/story/s17f0133c2f8?uncover=troll">https://infodemic.cc/en/story/s17f0133c2f8?uncover=troll</a>)

# Weibo Troll Activities: 1st and 3rd Battlefields Specific

## 1st Battlefield: Overall Troll Strategies

Concerning the Democratic VP candidate decision and the debates proposed by Trump, some narratives from the Weibo troll groups likened the election to a "civil war," framing it as an extension of domestic conflict to reinforce perceptions of division between the two major parties and further intensify social polarization. Attacks on Harris often focus on the narratives of her gaining power through inappropriate means, reinforcing misogynistic views that question the competence of female political leaders and suggesting that women use underhand tactics to attain power. Notably, conspiracy theories about Jewish control of America also emerged, echoing narratives from Chinese and Hong Kong state media, where Jews are portrayed as a significant force manipulating American politics, finance, and media.

Key Narratives Overview
<ul> <li>人选民说了,直接内战,还交接,国家都分裂了</li> <li>他意思是特朗普没有被选上,美国会内战,言下之意是现在就是要把特朗普排除在竞选之外</li> <li>真小人和小三竞选总桶,美国再次萎大!</li> <li>真是想多了,一个小三上位的女的有个屁的机会</li> <li>犹太人控制了美国。</li> <li>表面上看起来是选美国总统,实际上是给犹太人选太监总管</li> </ul>

Table 18: Key Narratives Overview regarding Weibo in the first battlefield (from <a href="https://infodemic.cc/en/story/s17f0133c2f8?uncover=troll">https://infodemic.cc/en/story/s17f0133c2f8?uncover=troll</a>)

### 3rd Battlefield: Overall Troll Strategies

In the context of the CNN interview regarding American strategies and policies, Weibo troll groups highlight U.S. fears of China's rise through emotional manipulation and labeling, criticizing U.S. hegemony and economic control. They externalize China's internal issues, such as economic decline and stock market downturns, by blaming the U.S. for malicious competition and suppression. Their aim is to raise public awareness in China about external threats, portraying the country as a victim while amplifying U.S.-China tensions to justify the Chinese government's responses to Western pressure.

Additionally, they argued that the U.S. fears China's electric vehicle industry because it threatens the petrodollar system, reinforcing a narrative of challenging Western economic dominance. The groups also emphasized China's self-reliance in electric vehicles and energy, bolstering public support and confidence in China's technological advancements and energy independence.

#### Key Narratives Overview

- 电动汽车之所以美西方害怕中国,我认为主要是改变了美西方的石油美元体系。
- 新能源发展起来,油气石油能源就没有那么金贵了!
- 端他们饭碗了,他们就指望汽车产业苟延残喘呢。
- 美国很流氓,已没有底线,没有最流氓,只有更流氓!
- 美国只想要一个落后的听话的中国, 而不是现在的中国。
- 老美十年前就说过,之所以打压中国只是不想有竞争者,让中国重新陷入贫困,倒没说过要中国,也

# ● 中美关系恶化是因为美国觉得霸权地位不保,无法再随心所欲地收割,而不在于国土。

Table 19: Key Narratives Overview regarding Weibo in the third battlefield (from <a href="https://infodemic.cc/en/story/s693d8399f02?uncover=troll">https://infodemic.cc/en/story/s693d8399f02?uncover=troll</a>)

# **Troll Activities Comprehensive Analysis**

From August 1 to August 31, 2024, Taiwan AI Labs conducted an in-depth analysis of coordinated disinformation operations related to the U.S. presidential election. The following are our key findings regarding troll behaviors and strategies.

YouTube #72 focuses on undermining Trump by portraying him as a racist and questioning the legitimacy of the U.S. electoral process. Similarly, Facebook #70033 attacks both Trump, labeling him a dictator, and Harris, depicting her as weak and promoting harmful policies, while also criticizing Elon Musk. Twitter #10946 spreads anti-Semitic and anti-government sentiment, linking Trump and Musk to fascism and accusing Harris of having ties with Jewish interest groups. In contrast, TikTok #144 portrays Trump as a traitor allied with authoritarian regimes while subtly attacking Harris by mocking her supporters. Finally, Weibo #2562 amplifies anti-American and anti-Semitic rhetoric, framing the U.S. as an imperialist power that exploits both its citizens and other nations.

In addition to specific troll group strategies, there is an overarching coordinated effort on YouTube to undermine Harris by associating her with criminal groups, questioning her leadership through racial and gender issues, and exaggerating her role in border policy failures. On Facebook, the strategy specifically targets Donald Trump, emphasizing his detrimental impact on the working class, his wealthy ties to Musk, and framing him as a threat to national security. Twitter's strategy notably amplifies racial and religious tensions, with a significant focus on anti-Semitic narratives intended to erode trust in the Democratic Party. Meanwhile, TikTok engages in coordinated attacks on Trump and Vance while demonstrating strong support for Harris and Walz, with messaging peaking during specific timeframes. On Weibo, the strategy intensifies societal polarization by likening U.S. elections to a "civil war," using gender bias to attack Harris, and framing U.S.-China relations through a lens of competition, particularly regarding the electric vehicle industry.

Regarding foreign forces, the coordinated strategies observed on YouTube, Twitter, and Weibo align closely with those of Russian and Chinese state media, underscoring a significant degree of cross-platform collaboration. YouTube echoes Russian outlets like TASS and RT by amplifying issues related to both Trump and Harris, thereby exacerbating divisions within U.S. society. Twitter mirrors narratives from Chinese state media, with troll groups enhancing distrust in Western democracies, including specific accusations against Musk. Concurrently, Chinese outlets reinforce these narratives by emphasizing cybersecurity and malicious competition. Similarly, Weibo aligns with Chinese state media, focusing on anti-U.S. and anti-Semitic rhetoric, accusing the U.S. of being controlled by Jewish interests and failing in its geopolitical strategies. This collaboration among Hong Kong and Chinese state media significantly strengthens anti-U.S. narratives and undermines trust in American political figures.

# The Infodemic Platform

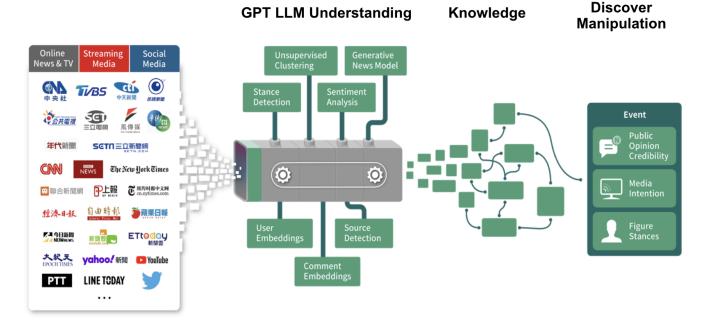
During the pandemic, Taiwan AI Labs collaborated internationally to develop trustworthy and responsible



Al in healthcare while addressing the global challenge of misinformation related to the pandemic. Working with global partners, we established mechanisms to detect such activities. Taiwan Al Labs initially used Al to observe and understand the behavior of various accounts, identifying coordinated activities to detect synchronized accounts.

Troll accounts are defined as a group of accounts not operated by genuine users. These could be accounts publishing specific content as per official directives, or those controlled programmatically or through PR firms, disseminating particular narratives in a non-organic, organized manner. By leveraging generative technologies and large language models (LLMs), Taiwan AI Labs analyzed billions of social media activities to unearth over 30,000 troll groups, understanding the content and patterns of their operations across more than two million topics. This helps to uncover the targets, methods, and possible motives behind these operations.

With the growing global demand for insights into information manipulation, international partners expressed interest in this service. Taiwan AI Labs further developed its capabilities into the Infodemic platform, providing real-time and comprehensive understanding of both domestic and international information manipulation for non-technical partners. This aids in developing digital literacy and response strategies. In recent years, Taiwan AI Labs has continued to use the Infodemic platform to observe coordinated behaviors on major Taiwanese social platforms such as Facebook, YouTube, X (Twitter), TikTok, and PTT. It employs LLMs to comprehend the targets and patterns of information manipulation attacks and the responses of mainstream media. It timely records the battlefields of information warfare participated in by troll groups, along with their potential impacts.



Graph 11: Overview of the data analysis process flow on the Infodemic platform.

- This report used data and tools from https://infodemic.cc
- How does the system work <u>https://infodemic.cc/en/faq</u>