



# One-Week Observation of Information Manipulations Following the 2024 Trump Assassination Attempt

## Table of Contents

<b>Table of Contents.....</b>	<b>2</b>
<b>Glossary.....</b>	<b>3</b>
<b>Executive Summary.....</b>	<b>5</b>
<b>Methodology.....</b>	<b>5</b>
<b>Building Similarity Nodes Between User Accounts.....</b>	<b>6</b>
<b>User Feature Extraction.....</b>	<b>6</b>
<b>User Behaviour Features.....</b>	<b>6</b>
<b>Co-occurrence Features.....</b>	<b>7</b>
<b>User Clustering.....</b>	<b>7</b>
<b>User Similarity Evaluation.....</b>	<b>7</b>
<b>User Clustering.....</b>	<b>7</b>
<b>Group Analysis.....</b>	<b>7</b>
<b>Opinion Clustering.....</b>	<b>7</b>
<b>Stance Detection and Narrative Summary.....</b>	<b>8</b>
<b>Data Coverage.....</b>	<b>8</b>
<b>Timeline.....</b>	<b>8</b>
Troll Narratives on the Main Battlefields from July 10 to July 17, 2024.....	9
<b>Main Troll Groups.....</b>	<b>10</b>
<b>Troll Group: Facebook#70033.....</b>	<b>10</b>
Operated Stories within a Week.....	10
Operated Entity.....	11
Targets of Troll Activities.....	12
<b>Troll Group: Facebook#70032.....</b>	<b>12</b>
Operated Stories within a Week.....	12
Operated Entity.....	13
Targets of Troll Activities.....	13
<b>Troll Group Comprehensive Analysis.....</b>	<b>14</b>
<b>The Infodemic Platform.....</b>	<b>14</b>

## Glossary

Term	Explanation
<b>Troll Account</b>	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. 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.”
<b>Troll Group</b>	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.
<b>Battlefield</b>	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.
<b>Story</b>	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.
<b>Media Volume</b>	Media Volume refers to the amount of media presence, calculated by the number of news reports.
<b>(PRC) State-affiliated Media</b>	(PRC) State-affiliated Media denotes media outlets whose content is controlled or censored by the government of the People's Republic of China.
<b>Community Volume</b>	Community Volume represents the volume on social media platforms, encompassing the total number of comments observed from both troll accounts and regular accounts.
<b>Troll Volume</b>	Troll Volume pertains to the volume of comments made by troll accounts.
<b>User Behavior Features</b>	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.
<b>Co-occurrence Features</b>	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.
<b>User Clustering</b>	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.

<b>Group Analysis</b>	Taiwan AI Labs uses Taiwan LLM, a large language model pre-trained in Taiwanese dialects, to classify the comments and opinions of troll groups, identify their main narratives, and analyze the primary information manipulated by troll groups and their underlying intentions.
<b>Topic Engagement</b>	Taiwan AI Labs employs large language models to analyze community 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.
<b>Operation Methods</b>	Taiwan AI Labs utilizes the DISARM Framework to analyze the methods and intentions behind the information operations conducted by troll groups.
<b>Leverage Existing Narratives</b>	Use or adapt existing narrative themes, where narratives are the baseline stories of a target audience. Narratives form the bedrock of our worldviews. New information is understood through a process firmly grounded in this bedrock. If new information is not consistent with the prevailing narratives of an audience, it will be ignored. Effective campaigns will frame their misinformation in the context of these narratives. Highly effective campaigns will make extensive use of audience-appropriate archetypes and meta-narratives throughout their content creation and amplification practices.
<b>Reframe Context</b>	Reframing context refers to removing an event from its surrounding context to distort its intended meaning. Rather than deny that an event occurred, reframing context frames an event in a manner that may lead the target audience to draw a different conclusion about its intentions.
<b>Flooding the Information Space</b>	Flooding and/or mobbing social media channels feeds and/or hashtags with an excessive volume of content to control/shape online conversations and/or drown out opposing points of view. Bots and/or patriotic trolls are effective tools to achieve this effect.
<b>Trolls Amplify and Manipulate</b>	Use trolls to amplify narratives and/or manipulate narratives. Fake profiles/sock puppets operating to support individuals/narratives from the entire political spectrum (left/right binary). Operating with increased emphasis on promoting local content and promoting real Twitter users generating their own, often divisive political content, as it's easier to amplify existing content than create new/original content. Trolls operate wherever there's a socially divisive issue (issues that can/are to be politicized).
<b>Comment or Reply on Content</b>	Delivering content by replying or commenting via owned media (assets that the operator controls).
<b>Manipulate Platform Algorithm</b>	Manipulating a platform algorithm refers to conducting activity on a platform in a way that intentionally targets its underlying algorithm. After analyzing a platform's algorithm (see: Select Platforms), an influence operation may use a platform in a way that increases its content exposure, avoids content removal, or otherwise benefits the operation's strategy. For example, an influence operation may use bots to amplify its posts so that the platform's algorithm recognizes engagement with operation content and further promotes the content on user timelines.

## Executive Summary

From July 10, 2024, to July 17, 2024, Taiwan AI Labs observed 69 battlefields and 407 media reports related to the Trump assassination attempt. Within this dataset, 18 media reports (4.42%) were associated with state-affiliated media from China. Out of 713 identified troll accounts, 1,524 were active in discussions related to the Trump assassination attempt. The overall community volume was 312,507, of which 1,524 (0.49%) were associated with troll activities.

Digital discourse was shaped by orchestrated campaigns from troll groups, highlighting two main developments: the worsening political divisions in the U.S. and the potential impact on international conflicts, particularly the Ukraine-Russia War. These troll-driven narratives foster skepticism about the assassination attempt, promote conspiracy theories, and aim to deepen political polarization in American society.

Troll groups' narratives also address broader issues beyond the assassination attempt, including U.S. political divisions, the upcoming presidential election, and the Ukraine-Russia War. These topics and strategies show a coordinated effort to shape public discourse and potentially influence international relations.

According to coordinated troll activity observed over the week, this report shows the troll-participated stories. These coordinated efforts manifest in several key areas: questioning the authenticity of the assassination attempt, drawing comparisons to historical events like Taiwan's Chen Shui-bian shooting, criticizing security measures, and predicting impacts on the upcoming U.S. presidential election.

After recognizing the narrative strategies, we selected two significant troll groups for detailed analysis. These groups showed an unusual pattern of simultaneously focusing on multiple geopolitical issues, suggesting coordinated foreign attempts.

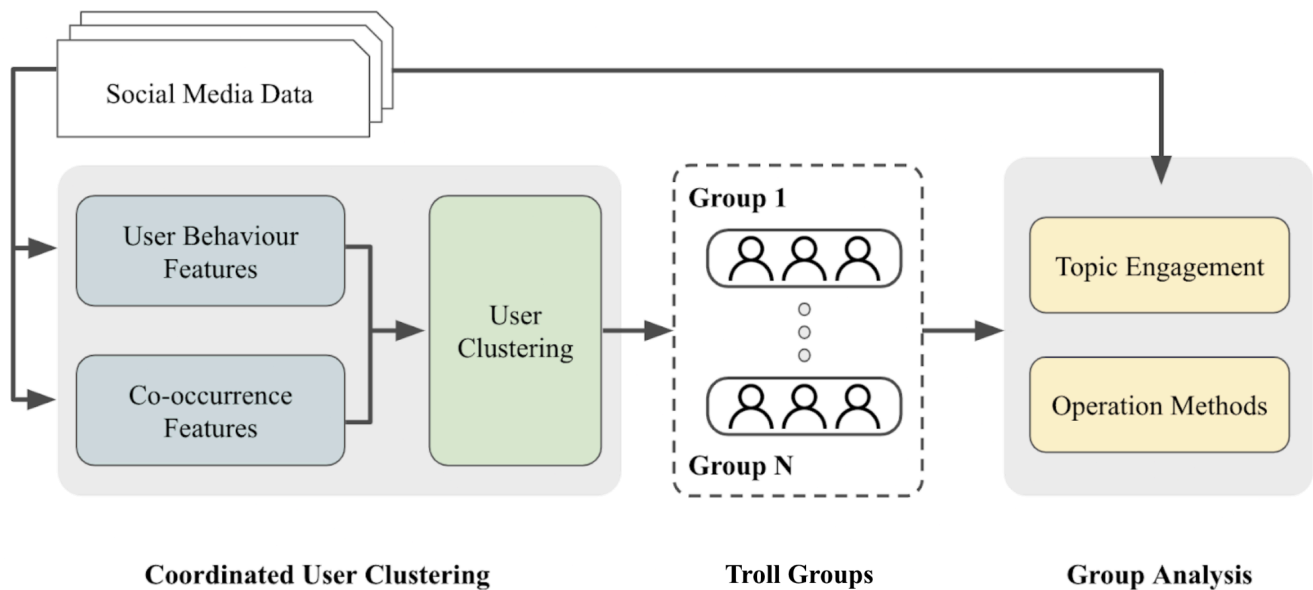
The two influential troll groups have distinct strategies to shape narratives. The first group focuses on U.S. politics and the Ukraine-Russia War. This group curated narratives from the Trump assassination attempt to criticisms of Biden's foreign policy, aiming to influence public perception of both domestic and international issues. The second group dedicates its efforts towards the U.S. conflict involvement, particularly focusing on military aid to Ukraine and the assassination attempt. This group spreads narratives criticizing the U.S. spending on NATO and the UN, seemingly intended to block military aid and influence public opinion on the U.S. international involvement.

As the U.S. navigates through this critical period marked by domestic political tensions and international challenges, the role of digital platforms in shaping political narratives becomes evident. The orchestrated activities of troll groups highlight a complex web of influence aimed at destabilizing public discourse and potentially swaying electoral outcomes. This environment, ripe with disinformation and polarized ideologies, underscores the urgent need for robust mechanisms to safeguard the integrity of the democratic process and maintain stability in international relations.

## Methodology

The Taiwan AI Labs employ their analytical tool "Infodemic" to examine information operations across different social media platforms.

## 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 community 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 community detection algorithm that identifies structures within networks based on the flow of information. Communities 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 examined data from July 10, 2024, to July 17, 2024, during 69 battlefields and observed 407 instances of media engagement related to keywords for the Trump assassination. Of these, 4.42% were associated with media volumes from China. Analysis revealed that 1,524 troll accounts were active in online discussions across various social media platforms. From the total discussion volume 1,524, 0.49% were traced back to these troll accounts.

Battlefields	Media Volume	(PRC) State-affiliated Media (%)	Troll Accounts	Community Volume	Troll Volume (%)
69	407	18 (4.42%)	713	312,507	1,524 (0.49%)

Table 1: Analyzed data quantity during the period of the Trump assassination attempt and U.S. presidential election (from <https://infodemic.cc>)

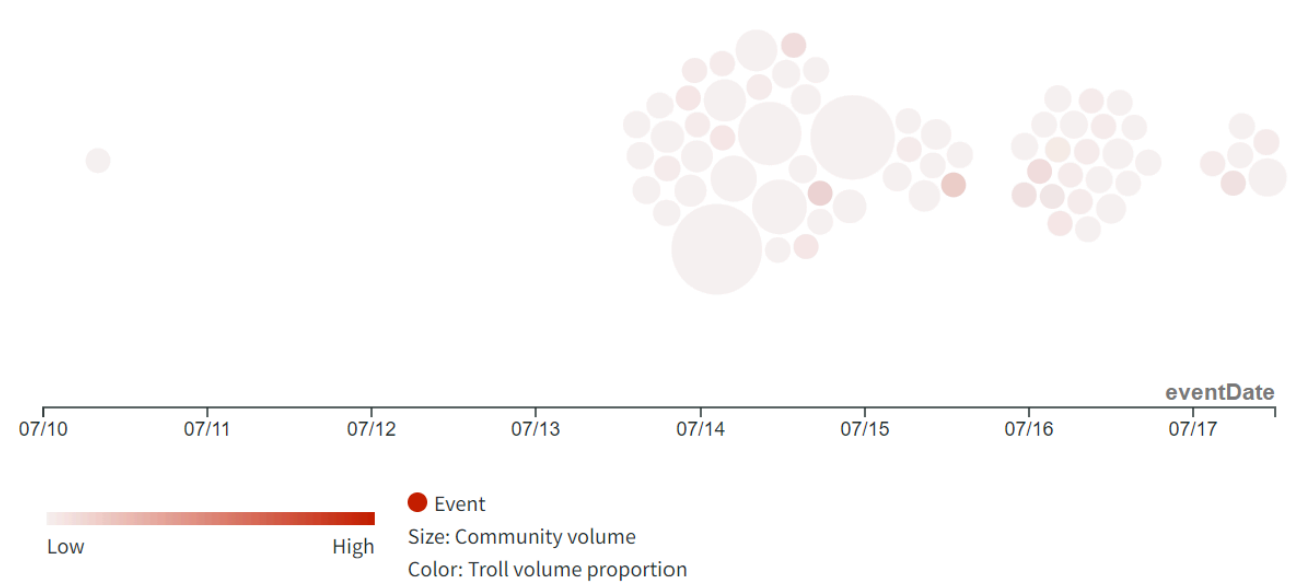


Timeline

The events analyzed by the Infodemic platform are presented in a BeeSwarm Plot, as shown in Graph 2. From July 10, 2024, to July 17, 2024, the analysis highlights the top events as shown in Table 2.

Top Troll Participated Battlefields (accumulated %)
<ul style="list-style-type: none"><li>Chen Shui-bian's 319 photo of gunshot wound "compared to Trump"! Shen Fu-hsiung looked dumbfounded: Thick-skinned (27.7%)</li><li>A woman behind Trump's shooting made a mysterious laugh and heated debate (35.2%)</li><li>FBI identifies suspected shooter in Trump assassination attempt <b>(38.6%)</b></li></ul>

\*The number associated with each event represents the cumulative volume of troll activity.  
Table 2: Analyzed top events of the Trump Assassination Attempt from July 10, 2024, to July 17, 2024(from <https://infodemic.cc>)



\* Each circle represents an event related to this manipulated story  
\*\* The size of each circle is defined by the sum of the social discussion of that event  
\*\*\* The darker the circle is, the higher the proportion of troll comments in the event  
Graph 2: Event overview by timeline (from <https://infodemic.cc>)

Troll Narratives on the Main Battlefields from July 10 to July 17, 2024

The FBI's identification of a suspected shooter in Trump's assassination attempt has become a focal point for troll narratives aimed at intensifying social divisions in the U.S. These trolls are exploiting the incident to amplify gun-related issues and deepen political polarization. They spread conspiracy theories claiming the attack was staged, comparing it to dubious events like the Chen Shui-bian shooting in Taiwan. Some comments mock Biden's past statements and question security protocols, insinuating broader institutional failures. Narratives predict Trump's re-election, Biden's downfall, and the end of American democracy. By focusing on a woman's "mysterious laugh" at the scene, trolls aim to sow further doubt and discord. These efforts exploit the incident to aggravate gun debates and intensify political divisions in American society.

Main Event	Troll Narratives
FBI identifies suspected shooter in Trump assassination attempt	<ul style="list-style-type: none"> <li>Comments claim that the shooter is a registered Republican, and that the assassination was staged.</li> <li>Comments mock Biden's statement "time to put Trump in a bullseye" prior to the shooting.</li> <li>Comments highlight concerns about the worsening U.S. political divide.</li> </ul>
Chen Shui-bian's 319 photo of gunshot wound "compared to Trump"! Shen Fu-hsiung looked dumbfounded: Thick-skinned	<ul style="list-style-type: none"> <li>Comments claim that Trump is going to be elected as the president, while Biden is doomed.</li> <li>Comments compare Trump's assassination attempt to Chen Shui-bian's 319 gunshot in Taiwan, mocking both as self-staged.</li> </ul>
A woman behind Trump's shooting made a mysterious laugh and heated debate	<ul style="list-style-type: none"> <li>Comments question the security measures and suggest conspiracy theories. For example, how could an ordinary person possibly threaten the president?</li> <li>Comments claim U.S. democracy is dead.</li> </ul>

Table 3: Key narratives surrounding the Trump assassination attempt and U.S. presidential election (from <https://infodemic.cc>)

## Main Troll Groups

During the main Trump assassination attempt battles, we noticed several troll groups were constantly manipulating the different battlefields. So, we conducted a deep analysis of these troll groups and found that they had some unusual activities.

These groups generated significant noise and manipulation on X, Facebook and YouTube platforms, actively engaging in international political controversies and policy-related issues without confining themselves to any single nation. We believe the behavior of these troll groups is typical and warrants further investigation. Below are the detailed analysis results for each troll group.

### Troll Group: Facebook#70033

Facebook#70033, observed by AI Labs, is an important active troll group on Facebook, with 385 accounts participating in 1,663 stories.

Troll Accounts	Operated stories	Target entities
385	1,663	1,153

Table 4: Summary of Facebook #70033 (from <https://infodemic.cc/en/collab/facebook@70033>)

## Operated Stories within a Week

The Facebook troll group #70033 is highly active in discussions surrounding the Trump assassination attempt and the U.S. presidential election. They also stay involved in events related to the Ukraine-Russia War, as observed before.

This week, they focus on the U.S. political divide, claiming it's the most serious consequence of the assassination attempt. They push the “self-staged” conspiracy theory and its impact on the presidential election. They also discuss whether the Ukraine-Russia War will escalate or end after Ukraine's attack on Russian military facilities in Crimea.

Event time (UTC+8)	Title
2024-07-14 ~ 2024-07-18	Ukrainian Air & Sea Drones Blast Russian Coast Guard Base in Crimea – Video
2024-07-02 ~ 2024-07-08	Trump hush money prosecutors agree to sentencing delay
2024-07-10 ~ 2024-07-13	What is Project 2025?
2024-07-14 ~ 2024-07-15	FBI identifies suspected shooter in Trump assassination attempt
2024-07-13~ 2024-07-14	Kentucky mega donor Christy Brown favors replacing Joe Biden using 'blitz primary'

Table 5: Operated stories of Facebook #70033 (from <https://infodemic.cc/en/collab/facebook@70033>)

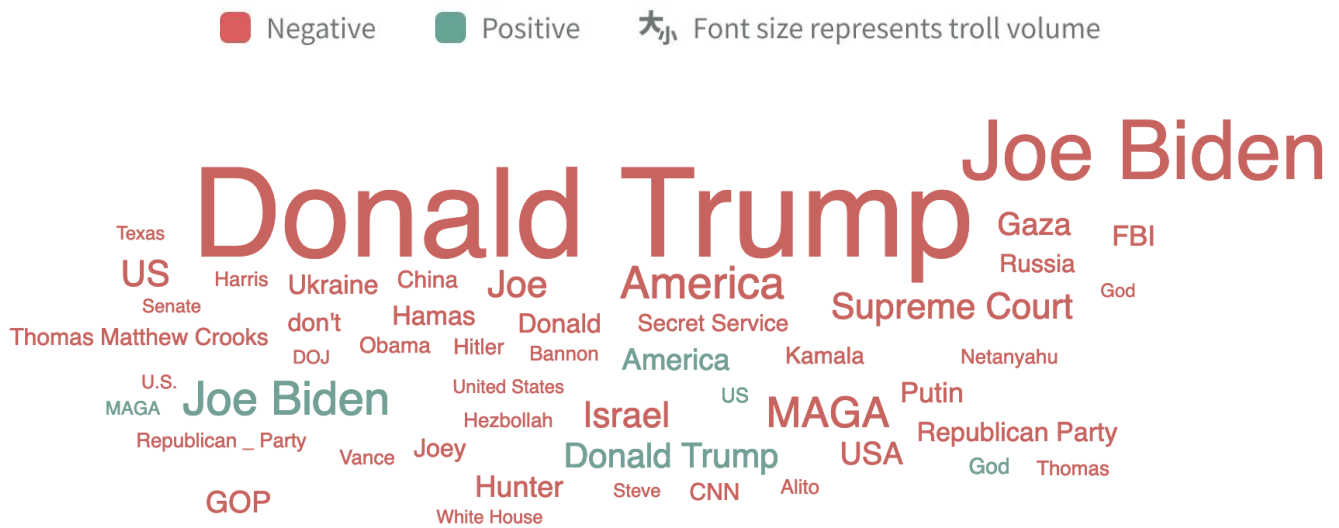
## Operated Entity

The Facebook troll group #70033 primarily targets entities related to U.S. politics and the Ukraine-Russia War, such as NATO. It is noteworthy that their comments skew towards criticizing Trump when it comes to the topic of U.S. politics, calling Trump an enemy of the country. On the contrary, their comments blame Biden for dragging Ukraine into a proxy war, claiming that NATO is going to lose to Russia.

Entity	Narratives
<b>Donald Trump —</b>	Comments criticize Trump, calling him "an enemy of the U.S. and a clear and present danger," and suggest he should face prison and lose post-presidency privileges.
<b>Joe Biden —</b>	Comments criticize U.S. political violence, claiming “NATO is being run into the ground by Russia in a proxy war in Ukraine.” Allegations of Biden family corruption are also frequently mentioned.

Table 6: Main operated entity of Facebook #70033 (from <https://infodemic.cc/en/collab/facebook@70033>)

## Targets of Troll Activities



Graph 3: Troll activity targets of Facebook#70033 (from <https://infodemic.cc/en/collab/facebook@70033>)

## Troll Group: Facebook#70032

Facebook#70032, observed by AI Labs, is the most active troll group on Facebook, with 646 accounts participating in 1,774 stories recently.

Troll Accounts	Operated stories	Target entities
646	1,774	761

Table 7: Summary of Facebook #70032 (from <https://infodemic.cc/en/collab/facebook@70032> )

## Operated Stories within a Week

The Facebook troll group #70032 actively engages in the Trump assassination attempt and military aid to Ukraine. They argue against U.S. spending on NATO and the UN, aiming to block further military aid.

Event time (UTC+8)	Title
2024-07-14 ~ 2024-07-18	Japan to provide \$3.3B in loans to Ukraine from frozen Russian assets
2024-07-14 ~ 2024-07-15	FBI identifies suspected shooter in Trump assassination attempt
2024-07-10 ~ 2024-07-13	Statement from President Joe
2024-07-14 ~	World leaders react to Trump rally shooting



## Troll Group Comprehensive Analysis

The main troll groups engaging in U.S.-related activities are Facebook#70033 and Facebook#70032. They focus on U.S. political issues, the presidential election, and the Ukraine-Russia War. Facebook#70033, with 385 accounts and 1,663 stories, targets the Trump assassination attempt and the Ukraine-Russia War. Facebook#70032, the most active group with 646 accounts and 1,774 stories, focuses on the Trump assassination attempt and military aid to Ukraine.

Both groups target key political figures, particularly Trump and Biden, with compelling narratives. Facebook#70033 portrays Trump as an "enemy of the U.S.," while Facebook#70032 calls him a liar and criminal. Facebook#70033 blames Biden for dragging Ukraine into a proxy war, while Facebook#70032 criticizes his handling of Afghanistan, border control, and family affairs.

Their narratives emphasize the worsening U.S. political divide, spread conspiracy theories, and accuse the U.S. of wasting money on NATO and the UN. This aims to deepen political divisions and influence public opinion on international affairs. By focusing on U.S. politics and the Ukraine-Russia War, they shape perceptions of key figures and events, revealing a coordinated effort to sway political discourse and public opinion both domestically and internationally.

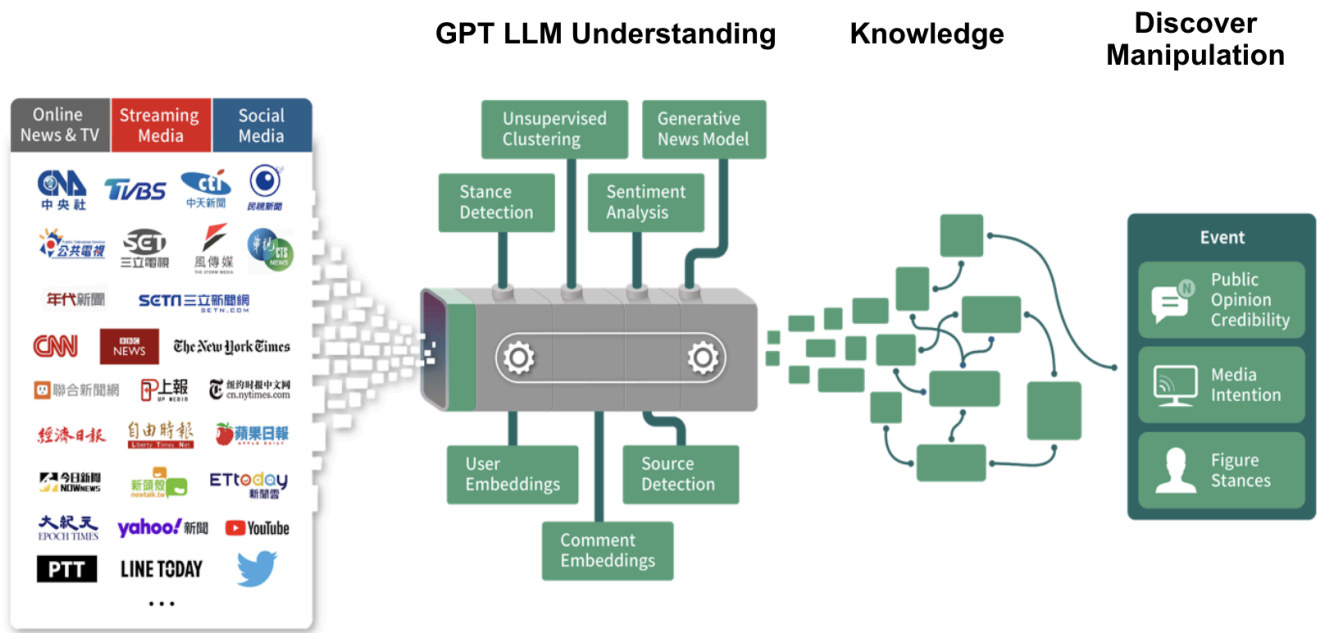
## The Infodemic Platform

During the pandemic, Taiwan AI Labs collaborated internationally to develop trustworthy and responsible AI 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 AI Labs initially used AI 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 social platforms such as Facebook, YouTube, X (Twitter), TikTok, Weibo, 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 8: 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 <https://infodemic.cc/en/faq>
- DISARM Disinformation Analysis and Risk Management is an open-source framework designed for describing and understanding the behavior parts of FIMI/disinformation. It sets out best practices for fighting disinformation through sharing data & analysis and can inform effective action. The Framework has been developed, drawing on global cybersecurity best practices. <https://www.disarm.foundation/>