



One full year observation of Information Manipulations Targeting 2024 EU Parliament Elections

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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. 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.
Community Volume	Community 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 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.
Topic Engagement	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.
Operation Methods	Taiwan AI Labs utilizes the DISARM Framework to analyze the methods and intentions behind the information operations conducted by troll groups.
Leverage Existing Narratives	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.
Reframe Context	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.
Flooding the Information Space	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.
Trolls Amplify and Manipulate	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).
Comment or Reply on Content	Delivering content by replying or commenting via owned media (assets that the operator controls).
Manipulate Platform Algorithm	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 1, 2023, to June 24, 2024, Taiwan AI Labs observed a total of 26,011 events and 335,045 media reports. Within this dataset, 97 battlefields and 1,624 media reports were specifically related to the EU Parliament Election. Out of 2,752,681 identified troll accounts in the total dataset, 20,041 were active in EU election-related discussions. The overall community volume was 55,307,335, of which 268,080 were associated with the EU election topic.

We observed social media troll activities targeting the European Parliament elections between July 2023 and June 2024, detailed analysis has revealed 20,041 troll accounts in related discussions, contributing to 12.58% of the total EU Parliament Election discussions. At the same period, 1,624 instances of major stories, with 16.07% of these instances associated with state-affiliated media from China and Russia.

The digital discourses were influenced by orchestrated campaigns from troll groups, highlighting two primary developments: the purported rise of far-right movements within Europe and initiatives to counteract interference on social media by Russia, large tech firms, and other external actors. These troll-driven narratives foster skepticism towards the threat of extremism and promote endorsement of conservative ideologies, shifting public perception. The report indicates that 11.76% of comments criticize media reporting, accusing them of lacking judgment and exaggerating Russian propaganda's influence. At the same time, the trolls distorted the impending rollout of EU regulations which aimed at curbing disinformation on social media platforms by distributing the concerns over government censorship impacting the freedom of speech. The trolls at the same time attacked the authority of mainstream media, by expressing disappointment at how news media unable to treat Russian propaganda, destroying the trust of reputable media sources.

Troll groups' narratives, reinforcing Russian and Chinese state-affiliated media, span concerns challenging EU's leaderships. Delivered in an approach with a special focus on the continent's declining living standards and extending to topics beyond the immediate scope of the European Parliament elections. These narratives targeted the following 5 major topics: Russia Ukraine war, energy security, digital regulation, migration, and climate change. The topics and strategies consistent with Russia state-affiliated media demonstrated a concerted effort to shape public discourses.

According to coordinated troll activity observed over bi-monthly periods, this report shows the top troll participated stories. These coordinated efforts manifest in several key areas: Attacks on EU's support of Ukraine intensified, with troll participation volume surging from 30.5% (July-August 2023) to 34.97% (September-October 2023), exploiting internal divisions. Economic issues, particularly energy security, contributed to 22.04% of troll narratives (September-October 2023) continues to be one of largest battlefields. Troll activities have also played a significant role in amplifying far-right voices, reaching 31.34% in November-December 2023. Compared to Taiwan we observed similar strategies, military expenses and energy security are also among the top stories undermining the government's trust and allies' support. At the same time, troll activities in Taiwan also play an important role in distributing the discourses which could support the white party.

After recognizing the narrative strategies, we selected troll groups spanning multiple narratives and identified the top five narratives by troll volume for each group for a detailed analysis. Having identified the Russia-Ukraine war and EU internal disputes as key themes in our narrative strategy analysis, we found two significant groups: one focusing on EU issues and US politics, and another concentrating on the Ukraine-Russia war and US politics. These groups showed an unusual pattern of simultaneously

focusing on multiple geopolitical issues across different regions, suggesting coordinated foreign influence attempts.

Two influential troll groups both have distinct strategies to shape global narratives. The first group focuses on Eastern European geopolitics and international military affairs, extensively disseminating stories about the Russia-Ukraine conflict and NATO activities. This group curated narratives from military confrontations to Yevgeny Prigozhin's assassination, aiming to influence public perception of regional security dynamics. At the same period of time, this group also manipulated Trump indictments. The second group, in contrast, dedicated its efforts towards the internal politics of Western democracies, particularly the UK and the US. This group spreaded negative narratives about political leaders, criticized government decisions, and closely monitored controversial political figures, seemingly intended on swaying voter sentiment and eroding public confidence in democratic institutions.

The strategies employed by these troll groups reveal a landscape of information warfare that is sophisticated and extends beyond traditional propaganda. Unlike more overt disinformation campaigns seen in recent elections or during major global events, these groups operate with subtlety and persistence, weaving their narratives into the fabric of everyday online discourse. Their focus on both international conflicts and domestic politics in Western democracies suggests a nuanced understanding of global power dynamics and the interconnectedness of national and international issues. This approach stands in stark contrast to single-issue disinformation campaigns, such as those targeting specific environmental policies or economic measures. By maintaining a diverse portfolio of narratives across multiple countries and topics, these groups create a pervasive atmosphere of uncertainty and skepticism, potentially influencing public opinion on a scale that isolated, topic-specific campaigns cannot achieve. This comprehensive strategy highlights the evolving nature of information manipulation, posing significant challenges to the integrity of public discourse and the stability of democratic processes worldwide.

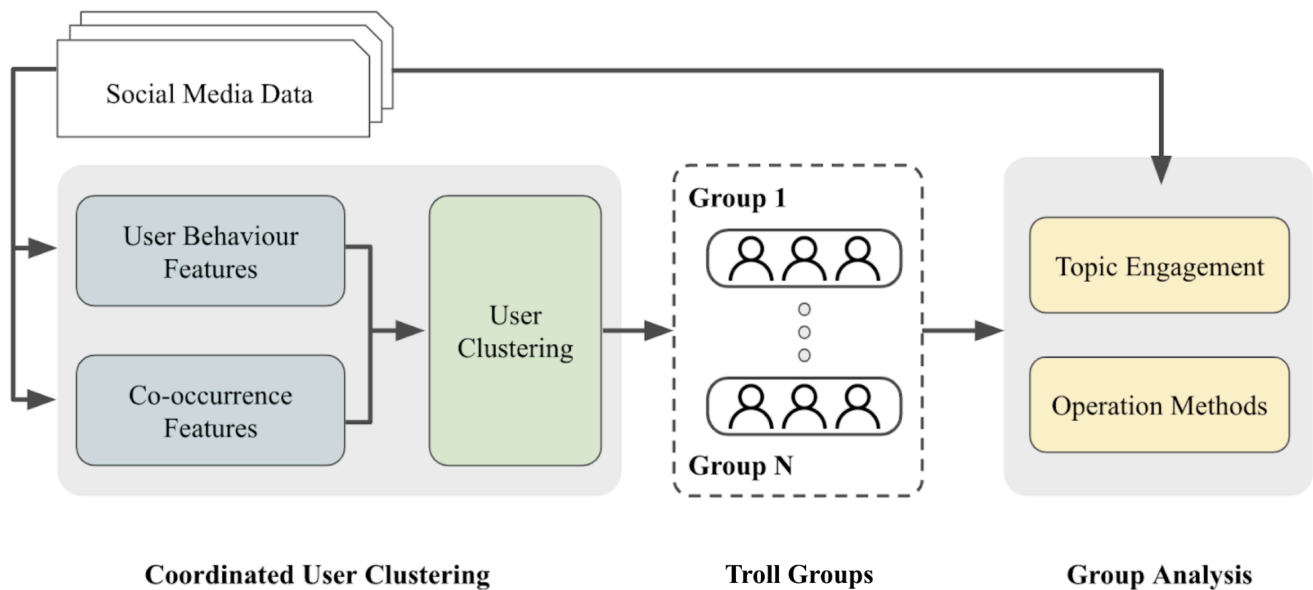
As the European Union navigates through this critical period marked by geopolitical shifts, internal challenges, and external manipulations, the role of digital platforms in shaping political narratives becomes evident. The orchestrated activities of troll groups, coupled with the strategic dissemination of narratives that echo state-affiliated media from adversarial nations, highlight a complex web of influence aimed at destabilizing public discourse and 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.

As EU citizens approach a pivotal election, setting up the AI-powered mechanism with trustworthy partners to establish the collective resilience of the European community against disruptions will be crucial in steering the continent towards a future that reflects its democratic values and principles, ensuring that the voice of the electorate prevails amidst the cacophony of digital warfare.

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 1, 2023, to June 24, 2024, during which 26,011 battlefields were observed and 335,045 instances of media engagement were tracked. Of these, 10.07% were associated with media volumes from China and Russia. Analysis revealed that 2,752,681 troll accounts were active in online discussions across various social media platforms. From the total discussion volume 55,307,335, 13.12% were traced back to these troll accounts.

Battlefields	Media Volume	State-affiliated Media (%)	Troll Accounts	Community Volume	Troll Volume (%)
26,011	335,045	35,849 (10.07%)	2,752,681	55,307,335	7,256,322 (13.12%)

Next, we tracked 97 battlefields and observed 1,624 instances of media engagement related to keywords for the EU Election. Of these, 16.07% were associated with media volumes from China and Russia. Analysis revealed that 20,041 troll accounts were active in online discussions across various social media platforms. From the total discussion volume 268,080, 12.58% were traced back to these troll accounts.

Battlefields	Media Volume	(PRC) State-affiliated Media (%)	Troll Accounts	Community Volume	Troll Volume (%)
97	1,624	261 (16.07%)	20,041	268,080	33,727 (12.58%)

Table 1: Analyzed data quantity during the period of the EU Parliament Elections event (from <https://infodemic.cc>)

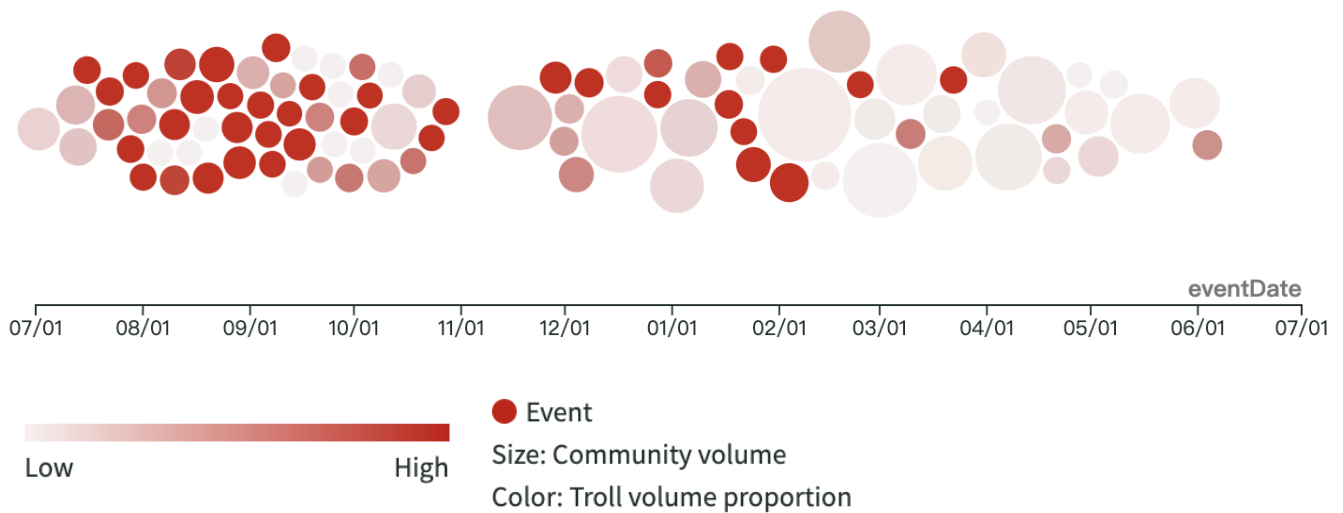
Timeline

The events analyzed by the Infodemic platform are presented in a BeeSwarm Plot, as shown in Graph 2. From July 1, 2023, to June 24, 2024, the analysis highlights the top events of each two months, as shown in Table 2.

Date	Top Troll Participated Battlefields (accumulated %)
Jul. ~ Aug. 2023	<ul style="list-style-type: none"> Denmark and Netherlands promise to provide F-16 fighter jets to Ukraine, Zelensky expresses gratitude for support (30.5%) Biden visits Europe to strengthen NATO alliance (50.68%)
Sep. ~ Oct. 2023	<ul style="list-style-type: none"> EU aid to Ukraine falls short of the target, but Russia's economy and military are not defeated (34.97%) Finland-Estonia gas pipeline leaks, suspected sabotage, European energy prices rise (57.01%)
Nov. ~ Dec. 2023	<ul style="list-style-type: none"> Wilders' far-right party wins Dutch general election (31.34%) Polish political shift: Far-right MP causes controversy, pro-EU Tusk becomes Prime Minister (50.31%)
Jan. ~ Feb. 2024	<ul style="list-style-type: none"> French farmers block major motorways around Paris as dispute escalates(45.9%) EU leaders gather for a key summit in a bid to unblock Orbn veto on Ukraine aid Europe live(57.8%) Hundreds of thousands protest against far-right in Germany(68.31%)
Mar. ~ Apr. 2024	<ul style="list-style-type: none"> Putin admits 'radical Islamists' were behind Moscow massacre, but still blames Ukraine (26.05%) Top Europe rights court to issue landmark climate verdicts(39.85%) Germany-China talks: Chancellor Olaf Scholz's juggling act(47.72%) UK Conservatives' top donor Frank Hester spoke of hating 'all Black women'(53.27%) Macron Struggles to Deliver His Vision for a Stronger Europe(58.19%)
May ~ Jun. 2024	<ul style="list-style-type: none"> Rafah attack continues as Europe states to recognize Palestine(31.07%) 'We are the alternative': Italy's Democratic Party makes final appeal to voters(43.27%) Thousands rally to back Hungary's Orban ahead of EU vote(52.53%) Markets fear the French far-right could trigger a financial crisis(57.14%)

*The number associated with each event represents the cumulative volume of troll activity.

Table 2: Analyzed top events of the EU Parliament Elections from July 1, 2023, to June 24, 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 During the Main Events from July to October 2023

Discussions about Biden's visit to Europe to strengthen the NATO alliance are rife with criticism. Many comments allege corruption and are associated with China, along with claims of election fraud and media censorship, all while advocating for America-first policies and opposing globalist agendas. In a similar vein, there are widespread conspiracy theories about NATO's control over Zelenskyy, labeling him as a puppet, and calls to disband NATO altogether. The narrative continues with debates on the EU's aid to Ukraine falling short of targets, which has sparked criticism of Ukraine's leadership and war efforts, with a specific focus on Zelenskyy's decisions, his ties to the US, and allegations of corruption. Additionally, discussions on social media regarding the Finland-Estonia gas pipeline leaks, suspected to be acts of sabotage, suggest these incidents are perceived as attacks on key infrastructure in two NATO countries by the US.

Main Event	Troll Narratives
Biden visits Europe to strengthen NATO alliance	<ul style="list-style-type: none"> Comments criticize Biden for alleged corruption and China ties. They claim election fraud, and media censorship, and oppose globalist agendas, advocating for America-first policies.
Denmark and Netherlands promise to provide F-16 fighter jets to Ukraine, Zelenskyy expresses gratitude for the support	<ul style="list-style-type: none"> Discuss conspiracy theories about NATO, which controls Zelenskyy as a puppet, and calls to disband NATO.
EU aid to Ukraine falls short of the	<ul style="list-style-type: none"> Online posts debate Ukraine's leadership and war efforts.

target, and Russia's economy and military are not defeated	Some criticize Zelenskiy's decisions, ties to the US, and mention corruption.
Finland-Estonia gas pipeline leaks, suspected sabotage, European energy prices rise	<ul style="list-style-type: none"> Discussion on social media suggests a reported attack on key infrastructure in two NATO countries by the US.

Table 3: Key narratives surrounding the Far-Right takeover of Europe underway event (from <https://infodemic.cc>)

Troll Narratives During the Main Events from November to December 2023

After Wilders' far-right party won the Dutch general election, debates arose about the definition of "far-right." Some worry this will make political discussions too extreme and unfairly label Dutch voters. Meanwhile, in Poland, the political landscape is also shifting. A far-right MP has caused controversy, while pro-EU Tusk has become Prime Minister, promising reforms. These events have sparked strong negative sentiments in debates, with words like "evil," "enemy of freedom," "fraud," and "lost country" frequently appearing, highlighting the polarization of opinions.

Main Event	Troll Narratives
Wilders' far-right party wins Dutch general election	<ul style="list-style-type: none"> People argue over what "far-right" really means. Some worry this makes political talks too extreme. There's debate about labeling Dutch voters unfairly
Polish political shift: Far-right MP causes controversy, pro-EU Tusk becomes Prime Minister, promises reforms	<ul style="list-style-type: none"> Some people have negative opinions. Words like "evil," "enemy of freedom," "fraud," and "lost country" appear in the debate.

Table 4: Key Narratives Surrounding the Gathering of At Least 120,000 in Berlin for the Latest Round of Protests Against Far-Right Events by Troll Groups (from <https://infodemic.cc>)

Troll Narratives During the Main Events from January to February

In response to French farmers blocking major motorways around Paris, troll comments express frustration with perceived pressures from European institutions and policies, such as net-zero goals. They argue that food prices in Eastern Europe are cheaper than in Western Europe and criticize governmental actions.

During a key summit where EU leaders gathered to discuss lifting Orbán's veto on Ukraine aid, trolls accused the US and NATO of exacerbating the Ukraine-Russia conflict and even potentially instigating a war in Taiwan.

Additionally, during protests against the far-right in Germany involving hundreds of thousands, trolls critiqued the media for selectively reporting and ignoring the farmers' protests. They claim that most Germans support the AfD while criticizing the media's portrayal of the AfD as far-right.

Main Event	Troll Narratives
French farmers block major motorways around Paris as dispute escalates	<ul style="list-style-type: none"> Comments reflect frustration towards perceived pressure from institutions and policies like net-zero goals. Also skepticism towards government action.
EU leaders gather for a key summit in a bid to unblock Orbn veto on Ukraine aid Europe live	<ul style="list-style-type: none"> Comments criticize the US and NATO for the situation in Ukraine, accusing them of manipulating conflicts for profit, including potentially instigating a war in Taiwan. Comments highlighting concerns about corruption, and democracy, aligning with EU values and calling for Hungary's expulsion.
Hundreds of thousands protest against far-right in Germany	<ul style="list-style-type: none"> Comments criticize the media's selective report and do not cover farmers' protests. Also, some say the majority of Germans support the AfD.

Table 5: Key narratives Surrounding main events from January to February (from <https://infodemic.cc>)

Troll Narratives During the Main Events from March to April

Regarding the Moscow massacre, Putin attributes the planning of the attack to Ukraine and Western countries, while the Russian Foreign Ministry claims that radical Islamist groups originated from US-backed Mujahideen forces during the Soviet-Afghan war. Echoing official media, comments express suspicion that the attack may have been orchestrated by ISIS, Ukraine, or possibly the CIA.

As the European Court of Human Rights prepares to issue landmark climate verdicts, trolls display skepticism towards the court, questioning whether the ECHR's authority could supplant governmental political actions.

In discussions about the Germany-China talks, comments vary from criticizing colonialism and US hegemony to addressing broader geopolitical tensions. Additionally, in response to reports about the UK Conservative Party's top donor expressing contempt for Black women, trolls raise concerns about the potential impact of Tory actions on freedom of speech.

Lastly, during Macron's speech outlining his vision for a strong Europe, comments focus on his policies towards migrants, his stance on Muslims, and his actions regarding Ukraine.

Main Event	Troll Narratives
<ul style="list-style-type: none"> Putin admits 'radical Islamists' were behind Moscow massacre, but still blames Ukraine 	<ul style="list-style-type: none"> There are allegations against Putin, claiming he orchestrates false flag operations and suppresses dissent through violence and propaganda. Comments discussed various theories about the recent attack on Moscow by suggesting it was organized by the

	FSB, ISIS, Ukraine, or the CIA.
<ul style="list-style-type: none"> Top Europe rights court to issue landmark climate verdicts 	<ul style="list-style-type: none"> Comments concerns about disingenuous from politicians at the top, who may only pretend to take action due to public pressure. The EU Commission is criticized for its approach to climate action and perceived violations of human rights. Comments express skepticism towards climate change actions, criticism of the European Court of Human Rights (ECHR), complaints about political leaders, and questions about the ECHR's authority.
<ul style="list-style-type: none"> Germany-China talks: Chancellor Olaf Scholz's juggling act 	<ul style="list-style-type: none"> Comments about China's progress, economic policies, and conflicts with the USA. Views range from criticism of colonialism and US hegemony to geopolitical tensions.
<ul style="list-style-type: none"> UK Conservatives' top donor Frank Hester spoke of hating 'all Black women' 	<ul style="list-style-type: none"> Comments express concerns about the UK Tory government's extremism bill and its potential impact on freedom of speech, with mentions of racism, genocide, and political divisions.
<ul style="list-style-type: none"> Macron Struggles to Deliver His Vision for a Stronger Europe 	<ul style="list-style-type: none"> Views range from Brexit strengthening the EU to criticism of European leaders like Macron, concerns over NATO, and accusations of corruption by Tories. Comments touch on Macron's handling of migrants, his stance on Muslims, and his actions towards Ukraine.

Table 6: Key narratives Surrounding main events from March to April (from <https://infodemic.cc>)

Troll Narratives During the Main Events from May to June

As Ireland, Norway, and Spain move to recognize Palestine, trolls label them as the 'axis of evil,' alleging they are controlled by Satan and the CCP, and clearly express their exclusive support for Israel. Meanwhile, during Italy's Democratic Party's final appeal to voters, trolls mock them and express their support for the far-right. In addition, during a rally for Hungary's Orbán ahead of the EU vote, comments criticized his relationship with Russia and critiqued his stance and authoritarian propensity.

In addition, after the EU parliamentary election, markets expressed fears that the French far-right could trigger a financial crisis. However, troll accounts voiced their support for Le Pen and criticized Macron as a warmonger, expressing dissatisfaction with his leadership.



Main Event	Troll Narratives
<ul style="list-style-type: none"> Rafah attack continues as European states recognize Palestine 	<ul style="list-style-type: none"> Claims that Ireland, Norway, and Spain are negatively influenced by Sharia Law, labeled as 'the axis of evil', and allegedly controlled by Satan and the CCP.
<ul style="list-style-type: none"> 'We are the alternative': Italy's Democratic Party makes final appeal to voters 	<ul style="list-style-type: none"> Comments express skepticism and annoyance over labeling issues in the media, particularly with the association of the term "far right."

<ul style="list-style-type: none"> Thousands rally to back Hungary's Orban ahead of EU vote 	<ul style="list-style-type: none"> Comments criticize him for alleged ties to Russia and authoritarian tendencies.
<ul style="list-style-type: none"> Markets fear the French far-right could trigger a financial crisis 	<ul style="list-style-type: none"> Support for Marine Le Pen criticized Macron as a warmonger and expressed dissatisfaction with his leadership. Comments discuss the political spectrum, mentioning that the far right is not Hitler.

Table 7: Key narratives Surrounding main events from May to June (from <https://infodemic.cc>)

Indirect Topics Associated with Troll Groups and State-Affiliated Media

Apart from the events directly tied to the EU Parliament elections, other categories of events related to Europe could influence the elections' outcome. Upon investigation, a correlation was found between troll groups and the media affiliated with Chinese and Russian states in terms of topic volume. The most discussed topics by these groups include Russia's war in Ukraine and energy security. In terms of specific interests, troll groups focus on digital regulation, migration, and climate change topics. Similar tactics are observed in Taiwan, where troll groups attack the government on domestic issues such as power shortages or egg shortages, aiming to undermine government authority. Meanwhile, Chinese state-affiliated media concentrate on topics that depict China's cooperation with Europe. In contrast, Russian state-affiliated media are engaged in topics that aim to stir up conflict in Euro-American relations. This result represented that the Chinese State-affiliated Media had highly coordinating focal points with the Russian State-affiliated Media. Further examination of the relationship between these two countries is needed for future study.

	Troll Group	 Chinese State-affiliated Media	 Russian State-affiliated Media
Russia's War in Ukraine	38.2%	38.1%	54.2%
Energy Security	11.2%	28.6%	8.3%
Digital Regulation	4.8%	0%	0%
Migration	3.1%	0%	0%
Climate Change	0.8%	0%	0%
China cooperates with Europe	0%	23.8%	0%

Stir up conflict in Euro-American relations	0%	0%	4.1%
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Table 8: Troll groups and the media affiliated with Chinese and Russian states exhibit a correlation in topic volume.

Main Troll Groups

During the main EU election 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 a typical and warrants further investigation. Below are the detailed analysis results for each troll group.

Troll Group: YouTube#397

YouTube#397, observed by AI Labs, is an important active troll group on YouTube, with 1,160 accounts participating in 1,793 stories.

Troll Accounts	Operated stories	Target entities
1,160	1,793	3,400

Table 9: Summary of YouTube#397 (from <https://infodemic.cc/en/collab/youtube@397>)

Operated Stories within a Year

The YouTube troll group #397 is highly active in discussions surrounding the Israel-Hamas War and the US presidential election. In addition to these, they also remain involved in events related to the EU Parliamentary elections, as observed before. Their activities include addressing Joe Biden's calls for a 'pause' in Gaza fighting, the Middle East crisis impacting oil supplies, West Bank protests, and Iran's threats towards Israel. Moreover, they engage in conversations about Trump's campaign rallies and his outreach to Hispanic and Black voters.

Event time (UTC+8)	Title	Community volume	Troll volume
2023-10-30 ~ 2023-11-08	Joe Biden calls for 'pause' in Gaza fighting to help free hostages	1,031,524	1,005
2023-10-17 ~ 2023-10-21	Middle East Crisis Could Disrupt Oil Supplies, Raise Prices	517,229	950

2023-10-17 ~ 2023-10-19	West Bank protests spread over Gaza war	846,594	641
2024-04-13 ~ 2024-04-24	Iran threatens to annihilate Israel should it launch a major attack	15,616,690	280
2024-05-21 ~ 2024-05-24	Trump holds campaign rally in the Bronx as he seeks to make inroads with Hispanic and Black voters	17,643,212	107

*The event marked in red is related to the US election, while the event marked in blue is related to the Israel-Hamas War.

Table 10: Top 5 operated stories of YouTube #397 (from <https://infodemic.cc/en/collab/youtube@397>)

Operated Entity

The YouTube troll group #397 primarily targets entities related to European politics and US influence, such as the EU and NATO. Their comments often delve into conspiracy theories about these topics, including China's global role and Covid-19. Additionally, they focus on Joe Biden, expressing strong negative sentiments and claiming that a significant portion of Americans oppose his re-election due to his foreign policy and financial ties.

Entity	Narratives
Europe —	Comments discuss conspiracy theories about European politics, US influence, and China's role globally. Topics include NATO conflicts, COVID-19, and hidden agendas in international relations.
Joe Biden —	These comments express strong negative sentiments towards President Joe Biden, claiming 75% of Americans oppose his re-election and criticize his acceptance of foreign money and stance on issues.

*The narratives marked in red are related to the US election.

Table 11: Main operated entity of YouTube#397 (from <https://infodemic.cc/en/collab/youtube@397>)

Targets of Troll Activities



Graph 3: Troll activity targets of YouTube#397 (from <https://infodemic.cc/en/collab/youtube@397>)

Troll Group: Twitter#4952

Twitter #4952, observed by AI Labs, is the most active troll group on X (formerly Twitter), with 3247 accounts participating in 291 stories recently.

Troll Accounts	Operated stories	Target entities
3,247	291	604

Table 12: Summary of Twitter #4952 (from <https://infodemic.cc/en/collab/twitter@4952>)

Operated Stories within a Year

The X troll group #4952 actively engages in EU-related events, particularly focusing on UK policy issues, including Sunak's actions and his disputes. However, since they mainly manipulated UK events, they still participated in discussions related to the US presidential election.

Event time (UTC+8)	Title	Community volume	Troll volume
2023-09-24 ~ 2023-10-07	Rishi Sunak's questionable new radicalism	42,566	3,537
2023-11-13 ~ 2023-11-14	Ex-PM Cameron Makes Shock Return to UK Government as Foreign Secretary	418,764	2,920
2023-12-12 ~ 2023-12-13	Rwanda vote exposes Tory divisions despite Rishi Sunak's win	91,809	2,528

2023-11-15 ~ 2023-11-19	Why the UK Supreme Court ruled against Rishi Sunak's Rwanda policy	123,639	2,169
2023-11-09 ~ 2023-11-11	What's Suella Braverman's game plan?	177,223	2,106
2024-02-11~ 2024-02-11	Trump Draws Outrage—And Attention Back On Him—For Russia Comments	138,296	421

*The event marked in red is related to the US election.

Table 13: Top 5 operated stories of Twitter #4952 (from <https://infodemic.cc/en/collab/twitter@4952>)

Operated Entity

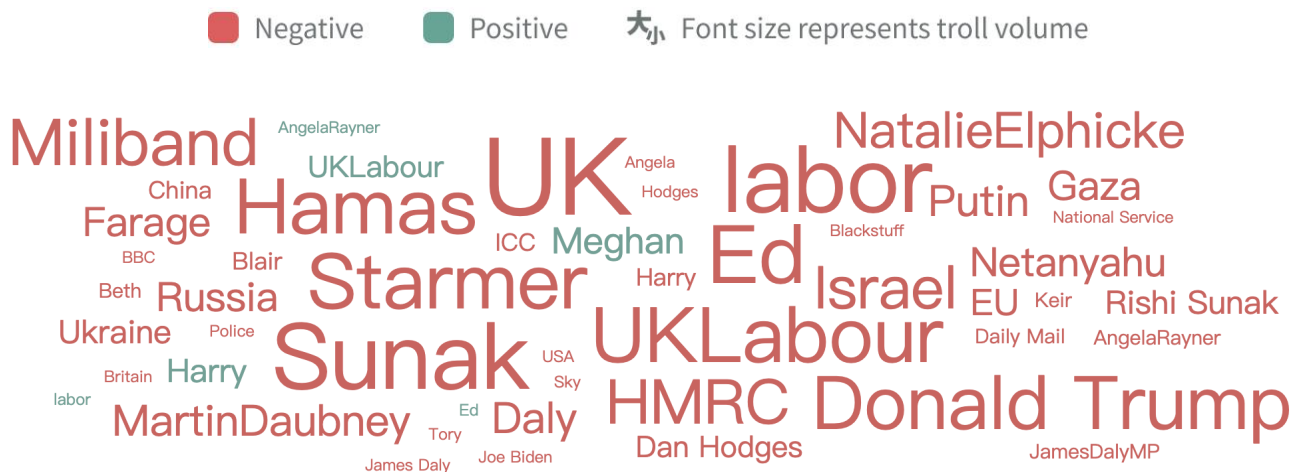
The X troll group #4952 primarily targets entities focused on UK-related issues, such as the UK itself, Sunak, and Labour. Additionally, their fourth target is Donald Trump, whom they criticize for his bullying tactics and political decisions.

Entity	Narratives
UK —	Comments cover topics including criticisms of UK leaders and concerns about foreign investment affecting the UK economy.
Sunak —	Comments criticize Sunak's leadership and predict bad outcomes for the Conservative government.
Labor —	Comments reflect opinions on the Labour Party's stance on immigration and express dissatisfaction with the party's direction.
Donald Trump —	Comments discuss Trump's incoherence as an advantage in a debate, calling for standing up to his bullying tactics and criticizing his political decisions.

*The narratives marked in red are related to the US election.

Table 14: Main operated entity of Twitter #4952 (from <https://infodemic.cc/en/collab/twitter@4952>)

Targets of Troll Activities



Graph 4: Troll activity targets of Twitter#4952 (from <https://infodemic.cc/en/collab/twitter@4952>)

Troll Group: Facebook#70050

Facebook #70050, observed by AI Labs, is the most active troll group on Facebook, with 168 accounts participating in 153 stories recently.

Troll Accounts	Operated stories	Target entities
168	153	127

Table 15: Summary of Facebook#70050 (from <https://infodemic.cc/en/collab/facebook@70050>)

Operated Stories within a Year

The Facebook troll group #70050 actively engages in EU-related events, with a particular focus on issues about the Ukraine-Russia War. However, their third largest volume of manipulated activity is related to the US presidential election, specifically involving Trump's plea of not guilty to criminal charges in the classified documents case.

Event time (UTC+8)	Title	Community volume	Troll volume
2023-06-06 ~ 2023-06-12	Ukraine dam explosion is 'Europe's worst disaster since Chernobyl'	20,281	2,262
2023-06-24 ~ 2023-06-29	Timeline of Wagner mercenary group's standoff that shook Putin's Russia	56,241	1,054

2023-06-08 ~ 2023-06-17	Trump pleads not guilty to criminal charges in classified documents case: 5 takeaways	330,811	604
2023-06-05 ~ 2023-06-06	Russia claims to have thwarted 'large scale' Ukrainian attack in Donetsk	9,034	417
2023-08-22 ~ 2023-09-10	Yevgeny Prigozhin's Assassination Was Inevitable	158,642	344

*The event marked in red is related to the US election.

Table 16: Top 5 operated stories of Facebook#70050 (from <https://infodemic.cc/en/collab/facebook@70050>)

Operated Entity

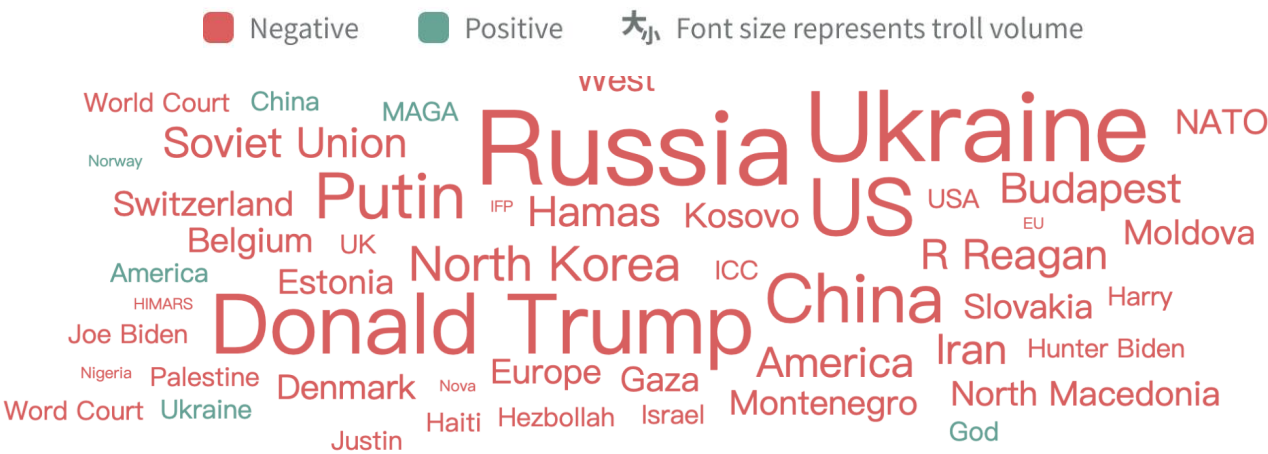
The Facebook troll group #70050 primarily focuses on entities involved in the Ukraine-Russia War, such as Russia, Ukraine, and Putin. Additionally, their primary target is America, where they critique Trump's legal defense and question Biden's leadership.

Entity	Narratives
America —	Comments cover opinions on Trump and Biden, with debates on their actions, behaviors, and policies. Some criticize Trump's legal defense and alleged remarks about soldiers, while others question Biden's leadership.
Russia —	Comments discuss the strong Russia-China ties, criticize US sanctions and President Biden's actions, and highlight Russian warnings against NATO involvement in Ukraine.
Ukraine —	Comments discuss Russia's intentions towards Ukraine and the involvement of NATO in the conflict.

*The narratives marked in red are related to the US election.

Table 17: Main operated entity of Facebook#70050 (from <https://infodemic.cc/en/collab/facebook@70050>)

Targets of Troll Activities



Graph 5: Troll activity targets of Facebook#70050 (from <https://infodemic.cc/en/collab/facebook@70050>)

Troll Group: Youtube#253

Youtube #253, observed by AI Labs, is the most active troll group on YouTube, with 3,004 accounts participating in 1,848 stories recently.

Troll Accounts	Operated stories	Target entities
3,004	1,848	3,433

Table 18: Summary of Youtube #253 (from <https://infodemic.cc/en/collab/youtube@253>)

Operated Stories within a Year

The Youtube troll group #253, actively engages in the US presidential election events. Despite this, they remain active in events related to the EU Parliamentary elections, as noted previously. The events include the activities of Italy's Democratic Party, market fears that the French far-right could trigger a financial crisis, and the electoral victory of Wilders' far-right party in the Dutch general election."

Event time (UTC+8)	Title	Community volume	Troll volume
2023-08-09 ~ 2023-09-01	Donald Trump pleads not guilty to election conspiracy charges in D.C.	1,831,199	9,940
2023-08-02 ~ 2023-08-09	US Supreme court sides with Biden in Texas border dispute	656,699	7,474
2024-06-05~ 2024-06-05	Sen. Bob Menendez's son wins New Jersey House primary amid father's corruption trial	22,879,485	5,801

2024-01-22~ 2024-01-31	US Supreme court sides with Biden in Texas border dispute	588,003	3,148
2024-02-08 ~ 2024-02-09	DOJ report clears Biden but cites his 'poor memory,' intensifying age concerns	719,802	2,922
2023-08-09 ~ 2023-09-01	Donald Trump pleads not guilty to election conspiracy charges in D.C.	1,831,199	9,940

*The event marked in red is related to the US election.

Table 19: Top 5 operated stories of Youtube #253 (from <https://infodemic.cc/en/collab/youtube@253>)

Operated Entity

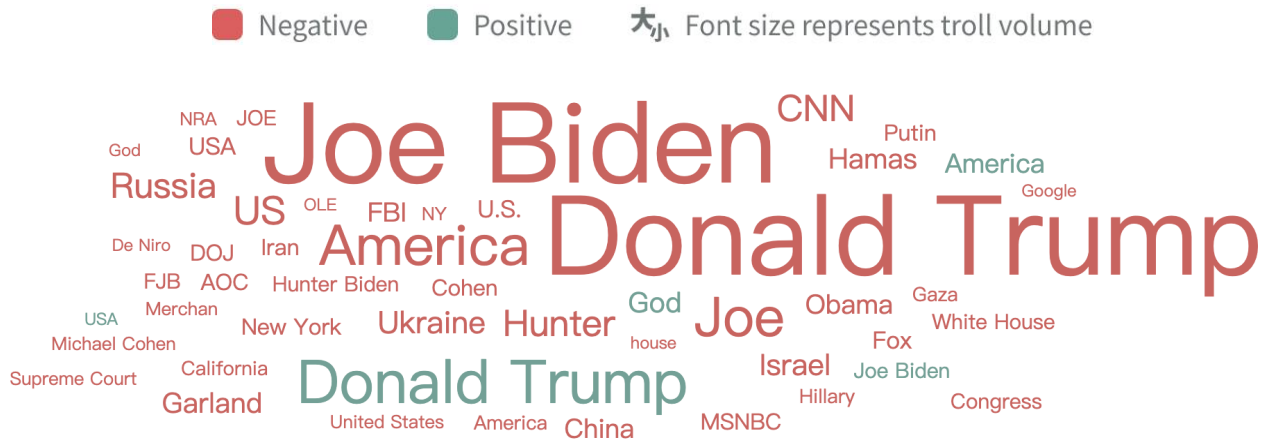
The YouTube troll group #253 primarily targets entities related to US presidential elections, such as Joe Biden and Donald Trump. Troll comments include criticism towards the Democratic party and express opinions about Trump with his unethical behavior.

Entity	Narratives
Joe Biden —	Comments express opinions and concerns regarding Biden, including allegations of corruption, criticism of his foreign policies, and claims about his health and mental state.
Donald Trump —	Comments express opinions about Trump and Biden, with accusations of corruption, biased media coverage, and political conspiracies.
America —	Comments include criticism towards Biden and the Democratic party, alleging corruption, propaganda, and destructive policies.

*The narratives marked in red are related to the US election.

Table 20: Main operated entity of Youtube #253 (from <https://infodemic.cc/en/collab/youtube@253>)

Targets of Troll Activities



Graph 6: Troll activity targets of Youtube #253(from <https://infodemic.cc/en/collab/youtube@253>)

Troll Group: Twitter#6630

Twitter #6630, observed by AI Labs, is the most active troll group on X (formerly Twitter), with 177 accounts participating in 88 stories recently.

Troll Accounts	Operated stories	Target entities
177	88	157

Table 21: Summary of Twitter #6630 (from <https://infodemic.cc/en/collab/twitter@6630>)

Operated Stories within a Year

The X troll group #6630 actively engages in EU-related events, particularly focusing on the Ukraine-Russia War. However, since they mainly manipulated Ukraine-Russia events, they still participate in discussions related to the US presidential election, specifically involving scandals related to Trump.

Event time (UTC+8)	Title	Community volume	Troll volume
2023-08-02 ~ 2023-08-12	Russian tanker damaged in Ukrainian drone attack	41,675	1,642
2023-08-22 ~ 2023-09-10	Yevgeny Prigozhin's Assassination Was Inevitable	158,642	1,242
2023-08-19 ~ 2023-08-24	Kyiv blames Russia for deadly strike	29,059	876

Troll Group Comprehensive Analysis

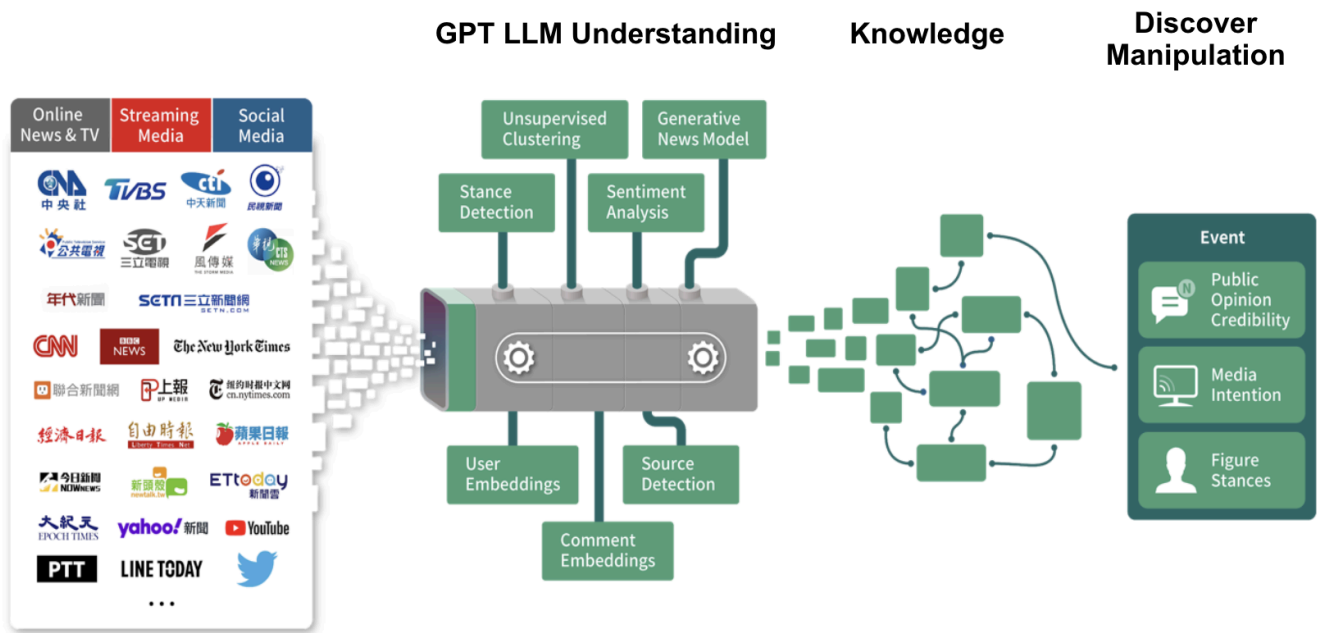
The main troll group which engaged in European related activities we mention above are primarily involved in events related to European election issues, such as Twitter #6630, Twitter #4952, and Facebook #70050. However, after closely observing all the issues they participated in over the past year, we discovered that these troll groups, in addition to engaging in European issues, also participated in the US issues, particularly those related to the presidential election candidates. For instance, Twitter #4952 criticized Trump's criminal cases and his statements regarding NATO. Facebook #70050 criticized Trump supporters in the mishandling of confidential documents incident. Twitter #6630 was involved in the Trump indictment event. Meanwhile, YouTube #397 and YouTube #253, despite primarily participating in the US election-related issues, were also key participants in European-related issues, such as market concerns about right-wing parties leading to an economic crisis, European aid to Ukraine, and the ECHR (European Court of Human Rights) climate ruling.

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 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 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/>