Niko Giantzaklidis

Exploring Factors Contributing to Trust in the Russian Government: An Analysis of Pro-Kremlin Twitter Accounts

Author: Niko Giantzaklidis

Contact information: `nikrgian@student.jyu.fi`

Supervisor: Martti Lehto

Title: Exploring Factors Contributing to Trust in the Russian Government: An Analysis of Pro-Kremlin Twitter Accounts

Työn nimi: Venäjän hallituksen luottamukseen vaikuttavia tekijöitä: Twitter-tilien analyysi

Project: Master's Thesis

Study line: All study lines

Page count: 126+51

Abstract: In the months leading up to Russia's full scale invasion of Ukraine, the Russian government launched an information operation belittling or even mocking claims of an imminent invasion. Despite the transparent deception, many Twitter users appeared to be supportive of the Russian government shortly after the launch of the invasion. This thesis aims to identify factors that could contribute to persisting trust in official Russian communication channels by analyzing public user data of over 27 000 Twitter accounts that kept engaging positively with official Russian communication channels.

Ultimately, clear contributing factors could not be identified that would explain this continued trust, if we are to operate under a definition of trust that is closely tied to factual accuracy. Instead, content analysis, following data and external links suggest that positive engagements with official Russian communication channels and other unreliable sources are driven by distrust in Western political institutions and legacy media. This distrust does not appear to have a clear left or right political leaning.

Keywords: hybrid warfare, information warfare, social media, bots, propaganda

Suomenkielinen tiivistelmä: Kuukausina ennen Venäjän täysimittaista hyökkäystä

Ukrainaan, Venäjän viranomaiset käynnistivät informaatiokampanjan, jossa vähäteltiin ja, jopa ivattiin väitteitä välittömästä hyökkäyksestä. Tästä läpinäkyvistä harhaanjohtamisyrityksestä huolimatta, jotkut Twitter-käyttäjistä eivät menettäneet luottamustaan Venäjän hallitukseen, vaan tukivat sitä hyökkäyssodan alettua. Tämä tutkielma pyrkii tunnistamaan tekijöitä, jotka voisivat selittää, miksi luottamus virallisiin venäläisiin viestintäkanaviin jatkui sodasta huolimatta. Tutkielmassa analysoidaan yli 27 000 Twitter-tilin julkista käyttäjätietoa sellaisten henkilöiden osalta, jolla oli myönteinen vuorovaikutus virallisten venäläisten viestintäkanavien kanssa.

Selkeitä tekijöitä tai vastauksia alkuperäiselle tutkimuskysymykselle ei löytynyt, jos toimimme oletuksella, että luottamus liittyy tiiviisti tosiasiallisiin faktoihin. Sen sijaan twiittien sisällön analyysi, sekä seuraajien datan ja ulkoisten linkkien seuraaminen viittaavat siihen, että epäluottamus länsimaisiin instituutioihin ja medialähteisiin, saattaa selittää tätä käyttäytymistä ainakin osittain. Tällä epäluottamuksella ei kuitenkaan vaikuta olevan selkeätä poliittista vasemmisto-oikeisto painotusta.

Avainsanat: hybridisota, informaatiovaikuttaminen, sosiaalinen media, botit, propaganda

Glossary

Hybrid warfare   From the Russian perspective, a class of warfare heavily reliant on information operations. Russian hybrid warfare does not fully exclude the use of conventional force. (see Clark 2020).

Bot   Social media accounts that exhibit partial or fully automated behaviors to spread and amplify narratives.

Troll   Social media accounts that adopt false personas in order to push specific narratives or engage in disruptive behavior. According to this interpretation, trolls are not automated but may be amplified by bot networks.

API   Application programming interface. Intermediary protocols that enable devices and applications to communicate with each other.

List of Figures

List of Tables

Contents

1 Introduction

Towards the latter part of 2021, tensions between the West and Russia had flared following several months of military buildup by the Russian armed forces on the Ukrainian border. By mid-February 2022, the situation had escalated to the point that the United States claimed that Russia could "mount military action at any time" (*Ukraine tensions: Russia invasion could begin any day, US warns* February 2022). The response from official Russian communication channels was not merely a denial, but an attack on anyone who would suggest that Russia was planning an offensive.

Figure 1: One of the many instances official Russian communication channels were denying any plans to invade Ukraine. `https://twitter.com/RusEmbSwe/status/1492539139316670469` (Retrieved 27.4.2023)

Since the beginning of Russian invasion, Russian misinformation has persisted. Russian claims have ranged from the Bucha massacre being "a fake" and a "provocation", dismissing drone footage showing Russian soldiers killing a cyclist (Browne and Khavin

April 2022), all the way to foreign minister Sergei Lavrov claiming that "we did not attack Ukraine".[1] Despite the fact that the claims by the Russian state have often been inconsistent, if not incoherent, the Kremlin seems to retain a low, but non-zero amount of support on social media. The goal of this thesis is to identify features associated with accounts sympathetic to the Russian government and the content that they engage with to gain a better understanding of such accounts for future study.

1.1 Implications

The Russian state's embrace of disinformation through official channels has implications that can be placed into two broad categories: sociopolitical and military. The methodology of this thesis will primarily focus on the sociopolitical elements of Russia's disinformation efforts.

1.1.1 Sociopolitical Implications

One of the core tenants of democracy is the indirect or direct participation of citizens in the political decision making process. This makes democracies in the social media age indirectly vulnerable to misinformation as well as disinformation campaigns through their electorates. Having a better understanding of why people engage with such demonstrably unreliable sources allows us to understand and identify potential solutions to the problem. For example, Pennycook and Rand argue that lazy thinking acts as a stronger predictor for susceptibility to fake news than motivated thinking (Pennycook and Rand 2019, p. 48). If we assume that such a model of thinking is the primary cause for susceptibility and the spread of Russian disinformation, then source evaluation and media literacy skills should be prioritized at the educational level.

This area is likely to be followed not only by concerned political leaders but also other authoritarian states due to authoritarian learning. Authoritarian learning refers to a concept that describes how authoritarian regimes learn from each other, particularly

---

1. Example coverage, `https://www.businessinsider.com/russia-repeats-claim-did-not-attack-ukraine-2022-3`, (Retrieved 17.9.2024)

when it comes to a regime's survival (Hall and Ambrosio 2017). If other authoritarian regimes conclude that Russia's disinformation efforts are a feasible path to less resistance, then we should expect more disinformation campaigns that target Western electorates.

1.1.2 Military Implications

Disinformation can be utilized as a tool for counterforce operations through the use of psychological warfare. Psychological warfare can generally be split into four categories (Libicki 1995, p. 35):

- Operations against the national will
- Operations against opposing commanders
- Operations against troops
- Cultural conflict

While deception is by no means exclusive to the current war in Ukraine, social media provides a venue with high reach for counterforce psychological operations. This side of the war has primarily played out on alternate social media platforms, such as Telegram, and therefore will be out of the scope of this thesis. However, it is so heavily interconnected with the subject as a whole that it warrants mentioning. The utilization of social media as an instrument to augment military operations has drawn the attention of militaries around the world.

1.2 Research Questions and Thesis Outline

1.2.1 Research Questions

This thesis aims to answer three core questions:

- Are there any identifiable factors that can be attributed to trusting the Russian government?
- Are there additional observations or trends related to trust in the Russian government that warrant further investigation?

3

- What challenges and considerations should policymakers take into account regarding Russian information operations?

1.2.2 Outline

Chapter 2 discusses provides background information of the Russian state's use of disinformation as a tool in hybrid warfare, with a particular focus on its effects regarding the full-scale invasion of Ukraine.

Chapter 3 elaborates on the primary objectives of this thesis and highlights the limitations that readers should be aware of. It addresses the inherent uncertainties associated with social media data and the significant policy changes resulting from Elon Musk's acquisition of Twitter.

Chapter 4 outlines the methodology employed to gather public data via the official Twitter API, which was used to assemble a dataset of users for further analysis.

Chapter 5 provides a brief overview of tweets that were selected from official Russian communication channels. It includes examples of the Kremlin's unique use of public channels compared to other states and provides metrics to demonstrate how Twitter's policies at the time appear to have affected overall visibility.

Chapter 6 explores the role of bots in the Russian state's hybrid warfare strategy, particularly the utilization of inauthentic accounts. It utilizes third party tools such as Botometer and compares this data with other publicly available datasets to try to assess the prevalence of bots.

Chapter 7 presents an overview of user data, including account creation dates, geocoded location data, and data availability distributions. Trying to understand the behavior of why these users appear to trust the Russian government's official narrative is the primary research question of this paper.

Chapter 8 delves into the tweet data from the users included in the dataset. It examines the type of content they share, identifies external websites mentioned in tweet content, and uses topic models to categorize discussions into similar themes that can be reviewed

manually.

Chapter 9 uses the generated topic models to gain insights into the general perception of well-known figures (e.g., Vladimir Putin) and events (e.g., the Bucha massacre), as well as trends or observations noted in previous chapters.

Chapter 10, the synthesis, seeks to answer the three research questions using data points and observations from the preceding chapters, interpreted in the context of existing literature.

2 Background

2.1 Information Operations as a Part of Hybrid Warfare

Hybrid warfare, as employed by Russia, is a category of warfare which encompasses a wide range of tactics that use both soft and hard power and are driven by information operations. The Russian perspective on hybrid warfare does not rule out the use of conventional force. Instead, it aims to limit actions that could lead to direct confrontation with stronger adversaries. A crucial aspect of this approach is the recognition that kinetic operations are dependent on successful information campaigns and that the possible use of conventional military force typically occurs in the final phase of a hybrid war, accompanied by possible legal justifications. (Clark 2020, pp. 15, 20-22). An example of such legal justifications include deploying conventional forces to "perform peacekeeping functions" in the Donbas.[1]

In the context of Russia's invasion of Ukraine, Russia aims to control three main information spaces to support its kinetic operations: domestic, Ukrainian, and foreign. Each of these information spaces can be narrowed down further and have their own unique audiences. These audiences are various stakeholders and are targeted by distinct messages and media to exercise influence. For example, Ramzan Kadyrov has been used by the Kremlin's propaganda outlets, including social work and charities, to project Kadyrov as a defender of traditional values with the broader Muslim world being the target audience (Watling, Danylyuk, and Reynolds February 2024, pp. 26-31).

However, there is an asymmetrical impact between these audiences. Limited influence in the foreign and Ukrainian domains can hinder or jeopardize Russia's ability to achieve its political objectives in Ukraine, while limited influence in the domestic domain can threaten the stability of the Russian state itself. It is reasonable to assume that this imbalance in potential impact is what compelled the Russian state to tighten

---

1. Quote from Putin's announcement on February 22, 2022. Example coverage: `https://www.reuters.com/world/europe/putin-orders-russian-peacekeepers-eastern-ukraines-two-breakaway-regions-2022-02-21/` (Retrieved 16.4.2024)

its control over the information space aimed at its domestic audience, to the extent that some social media platforms, such as Twitter, were blocked in Russia.[2]

2.2 Social Media's Role in Information Warfare

Another asymmetry between the domestic and other information spaces is how Russian messaging primarily disseminates. According to a survey by the Levada Center, 64% of Russians still get their news from television. That number among people aged 55 or older skyrockets to 84% (Levada-Center November 2022). Although Russia has been able to exert influence through state-affiliated channels such as *Russia Today* (RT) and *Sputnik*, social media has remained a key means for Russia to conduct information operations aimed at the foreign and Ukrainian audiences. Information and cyber operations targeting the Ukrainian domain have remained Russia's priority according to Google's threat analysis group (Leonard April 2023). These operations vary in scope and range from broad influence operations all the way to narrowly targeted psychological operations as described by Watling, Danylyuk, and Reynolds.

> Over the first three days of the invasion, all of Ukraine's General Officers received text messages or phone calls, often from counterparts on the Russian side whom they knew personally, to urge their inactivity to prevent bloodshed. Ukrainian officers at the rank of colonel meanwhile almost all received text messages urging inactivity or surrender, though these did not originate from known contacts.
>
> (Watling, Danylyuk, and Reynolds March 2023, p.15)

Many descriptions of social media networks emphasize their role as public platforms for mere discussion. While these characterizations are not factually incorrect, they overlook the key features that make these platforms such attractive targets for those seeking to shape the information space. Social media platforms do not only offer

---

2. Example coverage: `https://www.theguardian.com/world/2022/mar/04/russia-completely-blocks-access-to-facebook-and-twitter` (Retrieved 16.4.2024)

the ability to post messages, but also to amplify specific individuals or narratives. They can be used to target particular audiences by exploiting algorithms, leveraging echo chambers, or using marketing tools provided by the platforms themselves. In 2016 the Internet Research Agency (IRA), which is linked to Russian oligarch Yevgeny Prigozhin, utilized these tools to sow division and interfere in the 2016 US presidential elections. The IRA sought to deepen divisions by amplifying and spreading conspiracy theories and falsehoods. This was a calculated effort to create confusion and was not limited to any particular political group (DiResta et al. 2019, pp. 34, 69-71).

Paul and Matthews describe Russian propaganda as a "firehose of falsehood" which generally shares the following characteristics:

Distinctive Features of the Contemporary Model for Russian Propaganda

- High-volume and multichannel
- Rapid, continuous, and repetitive
- Lacks commitment to objective reality
- Lacks commitment to consistency

(Paul and Matthews July 2016, p. 2)

The core elements of modern Russian propaganda are described by these qualities. Notably the lack of consistency plays an amplified role in Russian propaganda that is spread through social media. Justifications which are seemingly contradictory seem to have a way of being ignored by specific audiences. For instance, far left groups sympathetic to Russia may be receptive to the idea of "denazification" or countering US interests but occasionally willing to ignore statements from Russian officials regarding deep revanchism or fighting the "LGBT agenda".

While much literature focuses on Russia's use of channels such as *Russia Today, Sputnik*, and social media for repetition through multiple channels, the war in Ukraine has demonstrated that the Russian state is also willing to employ diplomatic and official communication channels to disseminate and amplify its propaganda.

2.3 Amplification and How Lies Take a Life of Their Own

An example of how amplification can work, even when direct metrics suggest otherwise can be seen with the website "War on fakes". In early April 2022, the Russian embassy in Canada published the following tweet:

> **@RussianEmbassyC:** "Read Waronfakes website's article "Global lies over Bucha: How people's minds are manipulated" https://t.co/1vJx1gncCR"[3]
>
> *April 4, 2022*

The tweet itself did not gain much traction. What is interesting, however, is the "War on fakes" website which is being promoted by an official Russian communication channel. The website itself does not appear to have any advertising, suggesting that the primary purpose of the site is political or social gain. There is, however, a Yandex tracking script presumably tracking visits and basic engagement metrics. Interestingly, the website appears to have a manifesto portraying the owners as merely concerned individuals who wish to fight against disinformation:[4]

> We don't do politics. But we consider it important to provide unbiased information about what is happening in Ukraine and on the territories of Donbass, because we see signs of an information war launched against Russia.

This supposed commitment to "unbiased information" seems to target audiences in various languages including English, French, German, Spanish, Mandarin Chinese and Arabic. Notably no articles are written in Russian, despite the fact that the owners

---

3. See `https://twitter.com/RussianEmbassyC/status/1511065556606238722` (Retrieved 26.4.2023)

4. Quote retrieved 26.4.2023. As of September 2024, the domain was seized by the United States Department of Justice. See United States Department of Justice September 2024 for the full press release and affidavit.

claim to be administrators of "several Russian non-political Telegram channels". The articles appear to be translated using some translation tool such as Google Translate or DeepL translate, however, this process is not automated and as a result certain languages are prioritized depending on the article in question. For instance, there are a total of 100 pages worth of articles in English whereas there are only 33 pages in Arabic.[5]

The website's WHOIS records raise further suspicions about the "non-political" nature of the site. According to registration records, the site's domain was registered March 1, 2022, approximately a week after Russia's full-scale invasion:[6]

```
Domain name: WARONFAKES.COM
Updated Date: 2023-01-25T21:50:12Z
Creation Date: 2022-03-01T08:09:35Z
```

This is significant for two reasons. Firstly, it shows that the website itself is very much a response following the full-scale invasion of Ukraine, not a broad effort to combat misinformation. The second reason why this is important is that it illustrates that the Russian state is either willing to either:

a. Setup, resource and promote false "fact checking" websites because the Russian state believes that its official communication channels are not an authoritative voice in the information space.

b. Promote what is effectively some random blog which popped out of nowhere because it is currently in the interest of the Russian state.

Both patterns, in this case, the use of fake websites as well as amplification of questionable sources, have been core tools in Russia's information operations in the past, particularly during the 2016 US presidential election (DiResta et al. 2019). In September 2024, the US Department of Justice seized the waronfakes.com domain, alleging the site of being a part of a covert Russian government-sponsored influence campaign

---

5. Page count values retrieved 26.4.2023
6. WHOIS records retrieved 26.4.2023, some records omitted.
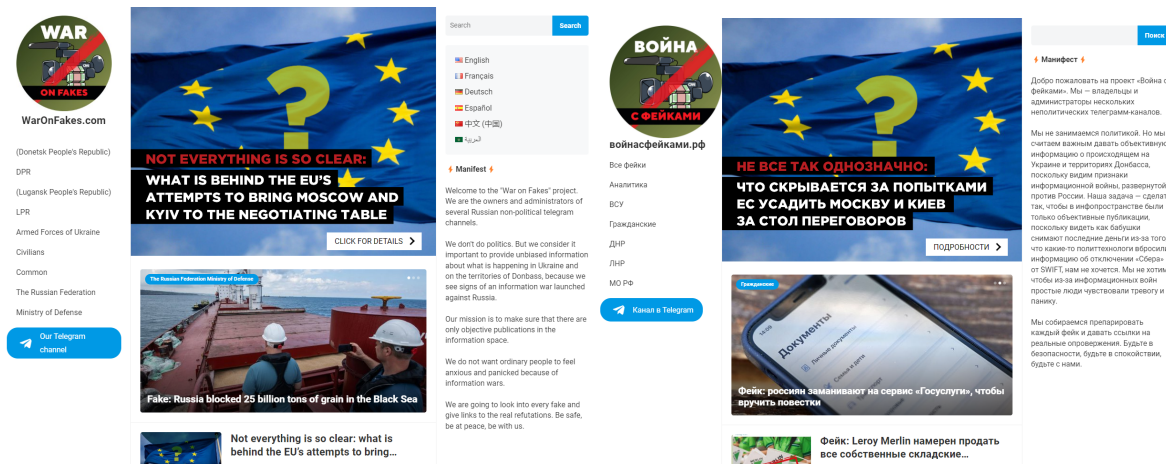
(a) International version of the site **(b)** Russian version of the site

Figure 2: Both versions of the "War on Fakes" side by side.

(United States Department of Justice September 2024).[7] Even if we would have assumed that the website was just a blog amplified by the Russian government, it represents highly deviant behavior in comparison to how other governments handle their official communication channels.

There is, however, more to the "War on fakes" site. By performing a reverse IP lookup using dnslytics on the site's IP (94.250.255.112), we can see that another website shares the same IP address. That website is "https://xn–80aaenqccitej3b1b.xn–p1ai/", which is a website address in cyrilic. Navigating to the site using a browser will redirect the user to what is effectively the Russian version of the site, войнасфейками.рф

The Russian version of the site has 283 pages worth of articles, versus the English version's 100[8] and isolates itself from the international version of the site. Unlike the English version of the site which seems to have launched approximately a week after the full-scale invasion, the Russian domain was registered merely hours the Russian full-scale invasion started.[9]

```
domain:        XN--80AAENQCCITEJ3B1B.XN--P1AI
```

---

7. The Russian version of the site remains accessible as of September 17, 2024.

8. Page count values retrieved 26.4.2023

9. Public WHOIS records retrieved 26.4.2023, some records omitted.

```
created:         2022-02-24T09:10:41Z
```

Launching a "fact-checking" site mere hours after Russia's full-scale invasion because, as the owners of the site put it, "... we see signs of an information war launched against Russia" is highly unlikely.

Other major differences include a lack of translated articles, the inclusion of third party social media scripts associated with VKontakte and a more aggressive push to get people to join the Russian speaking Telegram channel. The Russian version of the manifesto also claims to be concerned about grandmothers withdrawing their money in panic due to SberBank being disconnected from SWIFT.[10]

This distinct site also lets us compare the English and Russian speaking Telegram channels. The Russian one has approximately 706 000 followers versus the roughly 8 900 followers in the English version, suggesting that the site's reach to the international audience is rather limited.[11] Combining these figures with the original engagements that the Russian embassy in Canada reached (less than 400 likes and 120 retweets) and by most metrics the attempt to influence people using the "War on fakes" site can not exactly be characterized as a success. The problem, however, when it comes to combating amplification is that the message does not have to immediately reach a lot of people, but rather, the message only needs to reach susceptible people with their own large audiences. About ten days later the award winning directer Oliver Stone shared links to the "War on fakes" site.

---

10. "[..] поскольку видеть как бабушки снимают последние деньги из-за того, что какие-то политтехнологи вбросили информацию об отключении «Сбера» от SWIFT, нам не хочется." (Retrieved 26.4.2023)

11. Follower count values retrieved 26.4.2023

> **@TheOliverStone:** "(1/3) For some Sherlock Holmes clues to what's really going on in #Bucha, here are some other reported observations:
>
> https://t.co/K393j152Y3"[12]

April 14, 2022

Stone's tweet had significantly wider reach, garnering over 2000 likes and nearly 1000 retweets. By providing a Western perspective that supported the Russian narrative, Stone's voice was more familiar and relatable, making it more effective than when the message came directly from the Russian embassy. When public figures like Stone repeat the Kremlin's official talking points, whether intentionally or not, they can influence opinions or at the very least create a sense of uncertainty. Posts like these also provide Russian information operators incentive to keep amplifying Western voices such as Stone's.

Another example of how seemingly poor lies can find new life involves the classified documents leaked by Jack Teixeira. The documents initially appeared on Discord and approximately a month later spread to smaller pro-Russia Telegram channels. The pro-Russia Telegram channels, most notably the "Donbass Devushka" channel, spread an edited version of the documents which greatly exaggerated Ukraine's losses and minimized Russian losses (Luscombe and Paul April 2023; Toler April 2023). Initially this was the end of the story regarding the modified version of the documents since the edits were not particularly convincing and the actual leaks stole the spotlight. That was until Tucker Carlson, who hosted the second most watched news show on American cable television, claimed that "Seven Ukrainians are being killed for every Russian".[13] That figure is not consistent with the Pentagon leaks, however, it is in line with the modified version of the documents. The initial edited image did not have significant reach but Carlson repeating the falsehood had a far wider reach as well as the potential

---

12. `https://twitter.com/TheOliverStone/status/1514646333042294785` (Retrieved 26.4.2023)

13. `https://www.foxnews.com/opinion/tucker-carlson-telling-truth-only-real-sin-was` `hington` (Retrieved 26.4.2023)
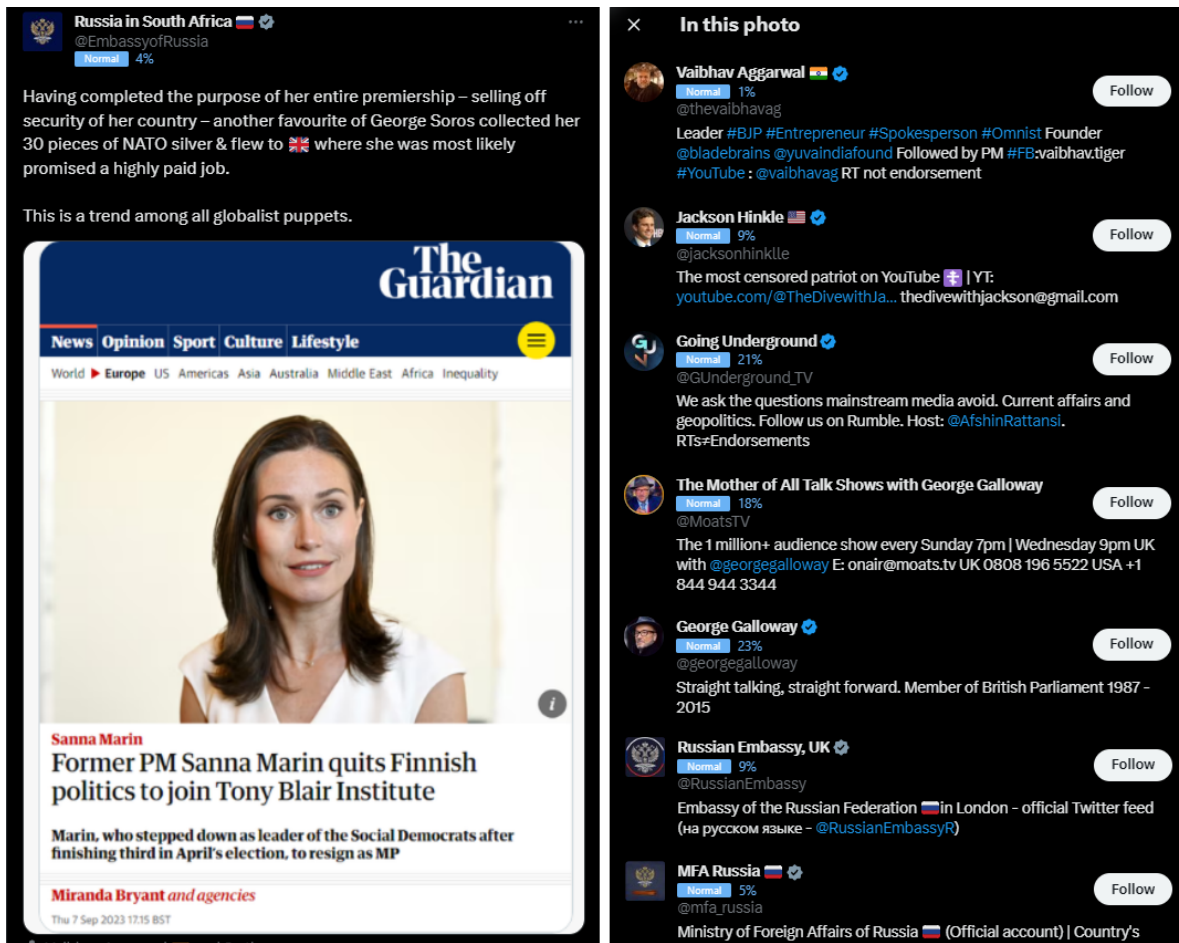
Figure 3: The Russian embassy in South Africa account tagging sympathetic users to ensure that they are notified about specific Tweets. Original: `https://twitter.com/EmbassyofRussia/status/1704147361809760404` (Retrieved 19.9.2023)

to shift views.

As a final example, Russian government accounts have also on several occasions either directly promoted Twitter accounts that spread narratives consistent with Russian interests as well as used Twitter features such as "tagging" to make sure that accounts with known sympathies towards Russia would notice specific Tweets. See Figure 3.

These three examples highlight the challenges with tracking and quantifying the complete scope, reach and effectiveness of Russian information operations. The Russian government has the ability and willingness to create and spread false information through various channels, but it can also pursue its goals by amplifying popular or

organic Western voices that align with Russian interests.

2.4 Conspiracies as a Means to Political Ends in Domestic Politics

A key distinction between Western and Russian information spaces is how conspiracy theories manifest. In the West, political conspiracy theories are generally sourced from the fringes and target figures in the political establishment. In the Russian information space, the inverse takes form where establishment figures disseminate conspiracy theories by utilizing the state's exhaustive control over the information space. In this context conspiracy theories are a means through which establishment figures can advance political ends (Yablokov 2018). These conspiracy theories frequently take a form which characterize Russia as being under constant threat from external forces and the conspiracies themselves appear to be widely embraced by the Russian security establishment (Kragh, Andermo, and Makashova 2022). While these conspiracy theories are primarily targeted towards the domestic audience, the war in Ukraine has created an environment where any communication by the Russian state and state affiliated media is closely monitored and frequently reach foreign audiences via social media.

A previous study which examined susceptibility to conspiracy theories and possible links towards pro-Russia attitudes in Slovakia concluded that susceptibility did not increase pro-Russia sentiments but they did weaken views towards the West in favor of "balanced" foreign policy (Onderco and Stoeckel 2020, p. 192). Assuming that these results widely hold true, the dynamics that are in play can potentially create an environment where foreign audiences that are susceptible to Russian conspiracy theories can be convinced that both Russia and Ukraine share the blame for the war in Ukraine. Such "balanced" views coincide with Russia's foreign policy goals of trying to convince foreign audiences that Ukraine should not be helped either because its defeat

is inevitable[14] or because the Ukrainian state is irredeemably affiliated with Nazis.[15]

14. For example, See `https://twitter.com/mfa_russia/status/1542033677118578689` (Retrieved 16.4.2024).

15. For example, See Appendix A, Id: 1530258673276268545 or `https://twitter.com/RussianEmbassy/status/1530258673276268545`.

3 Goals and Constraints

3.1 Goals

The main goal of this thesis is to gain a better understanding of the accounts that support Russia's invasion of Ukraine as well as seek to understand recurring themes and actors by using content analysis as well as aggregated statistics. Actors in this case may include politicians, pundits, journalists and publications whereas themes can range from recurring talking points to more abstract concepts such as prominent, sudden and reflexive shifts in talking points based on the context of the battlefield.

3.2 Constraints

The goal of this paper is not to broadly study pro-Russia accounts on Twitter but rather a subset of accounts that appear to support Russia's invasion of Ukraine and are also willing to engage with official Russian government accounts favorably. This excludes accounts that may or may not repeat similar, if not the same, talking points but will distance themselves from the Russian government itself.

Secondly, due to the subject of study, timing, and the methodology used, much of the data collection is difficult to replicate. For example, since the methodology relied on collecting accounts from Tweets that included egregious lies, projection and playing the victim, the frequency and quantity of tweets that could be used to collect accounts was entirely reflexive to the actions and claims of Russian government officials which in turn was heavily reflexive to the conditions and events on the battlefield. This contributed to a situation where despite data being collected from early April all the way to late November, a disproportionate amount of data collected is dated from April to early July which is when the shifts in the battlefield were still highly dynamic.[1]

The most unpredictable event which will affect repeatability, however, is Elon Musk's

---

1. For more details on data collection methodology and the unpredictable events that affected the dataset, see Chapter 4 and subsection 4.1.1.

acquisition of Twitter. In late April 2022, Musk announced that he was planning on acquiring Twitter in a deal which finally closed on October 27, 2022. Since then Musk has made several changes, including renaming the platform to 'X',[2] removed the 'state-affiliated' labels for publications and officials associated with authoritarian states,[3] removed limits to the visibility of accounts associated with Russian and Chinese officials,[4] firing the team designated to combat election disinformation,[5] and limited viable academic research by introducing highly priced API access. In June 2024, however, the platform introduced a significant policy shift by making all 'likes' private by default, which was a key feature used to filter accounts in this thesis.[6]

These changes would affect directly the methodology for data collection. For example, the methodology used in this paper to collect accounts for further analysis chose to focus on Russian government accounts in part because their limited visibility[7] minimized the role of Twitter's algorithm potentially affecting collected data. In theory, this would limit collecting accounts that happened to see pro-Kremlin talking points with a larger emphasis on accounts with stronger pro-Russian sympathies rather than impulses.

One of Musk's first changes was the introduction of paid verification which boosts visibility on the platform. The paid service also includes revenue share which allows accounts with a large number of engagements to earn money by posting content on

---

2. Since most data was acquired prior to the Twitter deal closing, the platform will be referenced as 'Twitter'.

3. See `https://www.theverge.com/2023/4/21/23692449/elon-musk-twitter-government-funded-media-labels-removed` (Retrieved 3.10.2023)

4. See `https://www.npr.org/2023/04/21/1171193551/twitter-once-muzzled-russian-and-chinese-state-propaganda-thats-over-now` (Retrieved 3.10.2023)

5. See `https://www.politico.eu/article/musk-ousts-x-team-curbing-election-disinformation/` (Retrieved 3.10.2023)

6. See `https://x.com/wanghaofei/status/1793096366132195529` (Retrieved 1.7.2024).

7. After the start of the full-scale invasion, Twitter started limiting the visibility of Russian government accounts. In other words, people interacting with such accounts deliberately sought out such content. Example coverage: `https://www.reuters.com/technology/twitter-wont-recommend-russia-govt-accounts-will-prohibit-some-pow-content-2022-04-05/` (Retrieved 23.9.2024)

Twitter.[8]

The introduction of revenue share in particular has the potential to significantly alter both the quantity and quality of discussions. The revenue share program combined with reduced efforts to fight disinformation on the platform has created an environment which arguably encourages paid subscribers to appeal to the lowest common denominator if that produces more engagement. Whether such incentives would actually produce wildly different discussion in a dataset like this is unknown, however, it does introduce an added layer of uncertainty that bears mentioning.

3.3   Ethics Constraints

Despite dealing with publicly available data, this paper will not publish names or other identifiers of specific tweets or accounts. There are a handful of exceptions to this. The following accounts may be publicly referenced by name:

- Accounts that are owned by the Russian government.
- Accounts that identify themselves as journalists or political pundits.
- Accounts that belong to celebrities (e.g. authors, actors, etc..)
- Bots accounts or otherwise demonstrably inauthentic accounts. The classification of whether an account is or was a bot is made manually.
- Other prominent accounts which have been previously covered in the news media or research due to spreading misinformation.

The underlying goal is to extract workable generalizations about the accounts and their views in this dataset for further research, not to specifically target individuals for their opinions. Tweets themselves will also not be directly quoted unless they are from an account that meets the prior requirements.

---

8. For more information on the revenue sharing program, see `https://help.x.com/en/using-x/creator-ads-revenue-sharing` (Retrieved 23.9.2024)

4 Data Collection

The data collected for this thesis can be categorized into two broad categories. The first category is public user and tweet data that was collected during 2022 and was collected in a semi-automated way. The second category of data is supplemental data which was collected in 2023 and 2024. This data is collected and used to try to explain and further understand trends and topics that were observed in the 2022 dataset.[1]

This chapter discusses the methodology used to collect public user and tweet data. Section 4.1 discusses the basic methodology for data collection from Twitter, as well as additional data from Positionstack, and Botometer. A general overview of how data was collected is illustrated by Figure 4.

4.1 Twitter Data

Twitter data was collected between April 24[2], 2022 and November 26, 2022. See Table 1 for an overview of files and a description of their contents. Figures 5, 6 and Table 2 illustrate sample entries for each file.

4.1.1 Methodology

Since the aim of this thesis is to try to understand what themes are common among accounts that seem to be susceptible to official Russian talking points, the core foundation of this methodology is to simply collect a list of users that 'liked' posts disseminated by official Russian government accounts. This methodology excludes other engagement metrics such as quotes and replies as those metrics do not necessarily imply support or

---

1. Some of this data is public data dating earlier than 2022 but is used as a point of reference. For example, Figures 25 and 26 compare how hashtags were used in the 2022 dataset versus how the Internet Research Agency (IRA) used hashtags for information operations.

2. This represents the start date. A significant portion of collected tweets were authored prior to April 24, some going back all the way to 2012. In this paper the primary focus will be on Tweets from January 1, 2022 to late 2022.

File	Description
`accounts`	Contains all of the accounts collected by the data collection program as well as from which tweets that account id was found
`tweets`	Contains a list of tweets by official Russian government accounts along with public engagement metrics
`profiles_batch_[1..17]`	Profile batches which include a snapshot of public profile information as well as "follows", "tweets", and "likes".

Table 1: Overview of files collected from the Twitter API by the data collection program. Profile batches were divided into smaller files to avoid data corruption and ease handling Twitter data on low-memory machines.

positive engagement. Retweets were also considered, but the concern was that relying solely on them could result in a dataset skewed too much towards staunch supporters. This methodology does not come without its own issues, however. Despite the fact that 'liking' a post should be a relatively self-explanatory function, there is no universal reason as to why someone would 'like' a post or how people use social media in general. For instance, people may 'like' a post by accident or as a sarcastic gesture and such instances introduce potential noise in the dataset.

In order to minimize the potential effects and scope of unwanted noise, fully automatic data collection was rejected in favor of a more tailored, semi-automatic approach. For instance, accounts that like tweets discussing President Putin's phone calls with other world leaders do not necessarily indicate support for Russia's invasion of Ukraine. As such a list of tweets was tailored that would be scanned to collect user identifiers for further use instead. The full list of tweets can be found in Appendix A.

Since the classification of which tweets should or should not be included is relatively subjective, the following rules of thumb were used to decide what types of tweet should
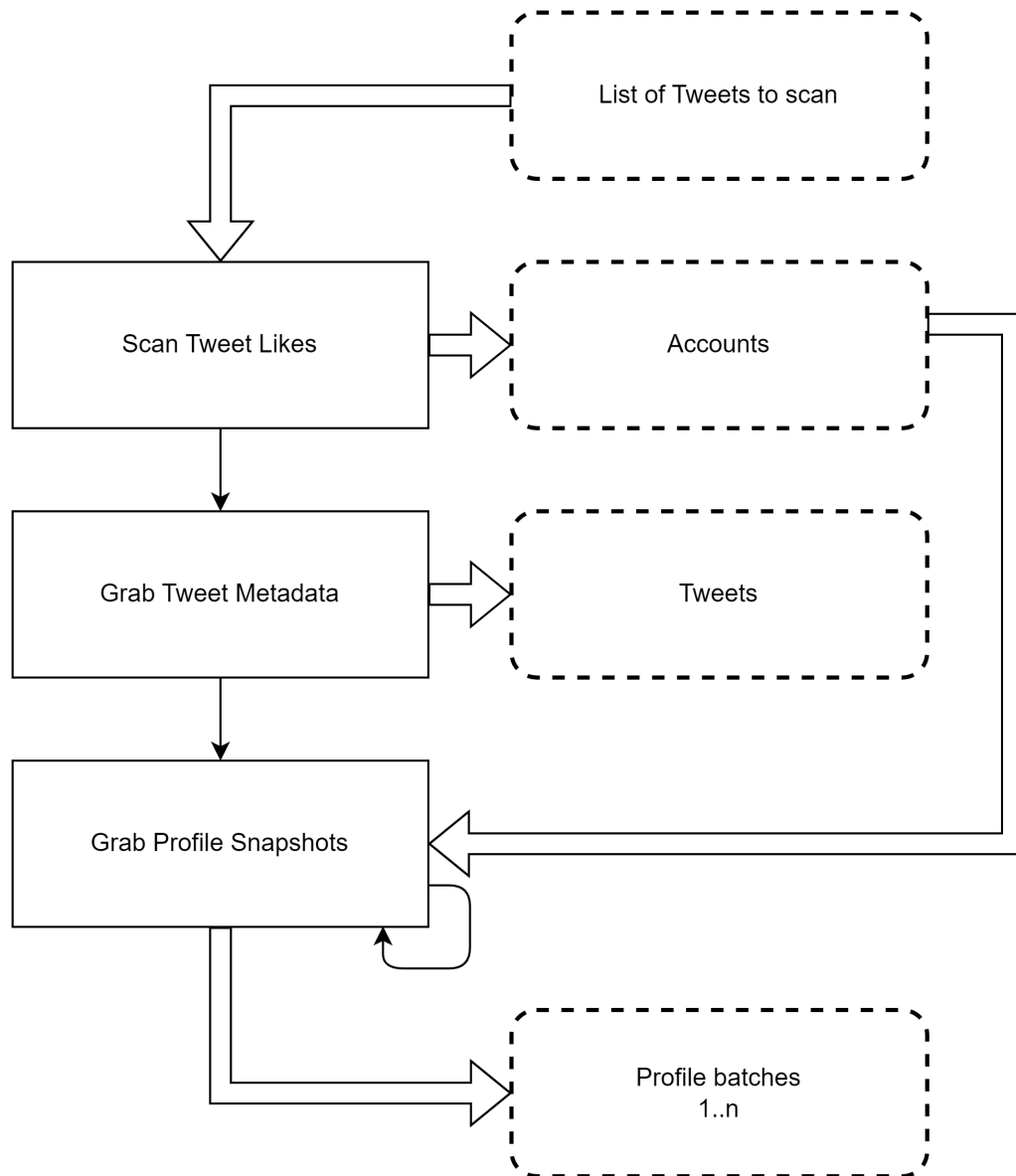
Figure 4: Overview of the Twitter data collection process. Dashed lines denote data inputs and outputs. The list of tweets to scan is a list of tweet ids stored in the data collection program itself, not a separate file.

be added to the list:

- Tweets that portray Russia as the victim (e.g. "Russophobia").
- Tweets that push conspiratorial narratives (e.g. "biolabs").
- Tweets that try to justify the war, which Russia insisted would never happen.
- Tweets that grossly exaggerate the prevalence of "Nazism" and antisemitism.
- Tweets accusing other countries of supporting and "glorifying" Nazism.
- Tweets that blame Ukraine for the atrocities committed by Russian forces.
- Tweets that blame Western support for "prolonging" and as a primary cause of civilian casualties.
- Tweets which seemingly attracted a visible influx of sarcastic engagements were excluded from the collection.

All tweets were exclusively from accounts labeled as "Russian government account" or some variation by Twitter.[3]

These rules of thumb highlight the kinds of tweets that are of interest. Although it can be difficult to fully verify the factual accuracy of some tweets due to the fog of war, the main focus here is on the fact the audience that has deliberately chosen to believe the narratives pushed by official Russian channels. This is despite Russia's demonstrated unreliability, as evidenced by its exhaustive denial of a full-scale invasion ever even occurring.

Once a tweet has been manually added to the list of tweets, the data collection program can be started. The data collection program was written using C# as well as the Json.NET library.[4] After the program is launched, each following step is fully automated.

The first step is to go through each tweet that is added to the list of tweets of interest. For each of those tweets the program will send an API request to fetch users that liked

---

3. This label was assigned by Twitter itself and has since been removed after Elon Musk's acquisition.

4. Version 13.0.0.0 was used. Full documentation available at `https://github.com/JamesNK/Newtonsoft.Json`.

```
"UserName": "RussianEmbassy",
"Name": "Russian Embassy, UK",
"Id": "114718372",
"Created_at": "2010-02-16T11:26:37Z",
"Location": "London",
"fromTweets": [...],
"retrievedDate": "2022-03-30T14:57:25.6543322+03:00"
```

Figure 5: A sample of a row from the accounts file. Due to privacy concerns, one of the Russian embassy accounts which liked posts by other Russian government accounts was selected as an illustration. The lowercase fields "fromTweets" and "retrievedDate" are not values from Twitter itself but created and modified by the data collection program.

the tweet. If the user is not already stored in the accounts file,[5] it is added. If the user account is already in the accounts file for liking a different tweet, the accounts file updates which tweets from official Russian accounts that user account has liked. Importantly, the accounts file does not store exhaustive information about each account that liked a tweet but rather stores basic info such as the name, user id and a list of tweets that the account liked. For a better glimpse of what type of data is stored in the accounts file, see Figure 5.

Once the dataset of accounts is updated, the next step is to collect and update the dataset for tweets. The tweets file stores some basic metadata about each tweet such as the creation date, which official Russian government account or official tweeted it as well as how many likes that tweet had at the time. The number of likes, retweets, replies and quotes are stored as a list meaning that every time the data collection program was rerun, it would add a new entry for how many engagements there were at that specific point in time. The main reason as to why these stats were being tracked was to have a record of the number of engagements in case Twitter decided to limit engagements for certain tweets, as they had in a few prior instances during the full-

---

5. All data responses from the Twitter API are in JSON format and stored as such.

scale invasion.[6] See Table 2 for example values and Chapter 5 for some more insights collected from official Russian government accounts.

Field	Value Type	Example
Id	String	"1509104536014958593"
Text	String	"The truth always finds its way out..."
Created_at	Date	2022-03-30T09:45:33Z
Author_Id	String	"1669981711"
Likes	[(Date: Int)]	{"2022-04-18T15:31:18.2942135+03:00": 703}
Replies	[(Date: Int)]	{"2022-04-18T15:31:18.2942218+03:00": 352}
Retweets	[(Date: Int)]	{"2022-04-18T15:31:18.2942207+03:00": 230}
Quotes	[(Date: Int)]	{"2022-04-18T15:31:18.2942197+03:00": 42}

Table 2: Sample tweet data fields. Note that Likes, Replies, Retweets and Quotes are stored as lists to track change over time in case a specific tweet gets deleted and is no longer available.

Once data is collected, the data collection program starts grabbing profile snapshots. The profile grabber is the last module of the data collection program and it is programmed to run every fifteen minutes due to API rate limits. Effectively, this was by far the slowest part of data collection.

The profile snapshot grabber's job is to grab as much public information from an account at a specific point in time as possible. This data includes basic public profile information but it also includes the last fifty tweets, the last fifty likes and one hundred accounts that the account follows. Datapoints such as "Likes", "Tweets" and "Follows", are further used to try to understand the type of content and accounts that they engage with.

Profile snapshots were stored in seventeen separate batches. The first batch was approximately 430 MB in filesize and the rest were kept between 140-190 MB.

---

6. Example of such an instance: `https://twitter.com/mfa_russia/status/1510648066403143683` (Retrieved: 12.6.2023)

```
"Name": "Russian MFA in Kaliningrad 🇷🇺",
"UserName": "MID_Kaliningrad",
"Protected": false,
"Verified": true,
"Location": null,
"PinnedTweetId": null,
"CreationDate": "2014-11-19T15:00:07Z",
"Id": "2884088415",
"ProfileImageUrl": "https://pbs.twimg.com/profile_images
    /1400423793806516225/pBLQhZxY_normal.jpg",
"FollowerCount": 6360,
"FollowingCount": 509,
"TweetCount": 5644,
"ListedCount": 109,
"Url": "http://t.co/mIUtOteyr5",
"Description": "@MFA_Russia Representative Office in
    Kaliningrad. Follow @KaliningradReg | Представительство МИД
    России в Калининграде",
"Tweets": [...],
"Follows": [...],
"Likes": [...]
```

Figure 6: A sample entry profile snapshot for the "Russian MFA in Kaliningrad" account. Note that "Tweets" and "Likes" are limited to a maximum of fifty per account and "Follows" to a hundred per account.

4.1.2 Constraints and Notes

The simplicity of this data collection methodology comes with its own trade-offs and limitations. Firstly, due to the variance in API request rate limits, some data points were collected at a much faster rate than others creating a buffer. This led to some instances where as the year went on, there was a significant delay between an account being added to the accounts file and then it being processed by the profile grabber. This delay also means that some accounts which were added to the accounts list were suspended or deleted before the profile grabber had the chance to grab a snapshot of the profile.

Another phenomenon that should be noted is that tweets that were used to collect account ids were not added to the collection in set intervals. This is primarily due to two reasons:

a. The list of tweets was tailored instead of being fully automated.

b. Russian communications channels were highly reactive to the events of the war. In other words, tweets that would qualify to be added to the list were published at highly varied intervals. For instance, the events in Bucha and Kramatorsk led to an increase in tweets that qualified to be added in the tweet list.

These two points combined mean that there is variation in the frequency and spread between Tweets from official Russian communication channels that appear in the dataset. See Chapter 5 for an overview of data collected from tweets posted by official Russian government accounts.

5 Data from Official Russian Communication Channels

This chapter discusses data collected from official Russian communication channels. This data is not the primary subject of study but it is a part of the methodology used to compile the dataset of users.

A total of 212 tweets from 26 different Russian state affiliate accounts were used to collect public user data.[1] Accounts associated with the Russian state or officials had limited reach, as evidenced by Figure 7. For example, out of the hand-picked 212 tweets, 107 of those had fewer than 500 'likes'.[2]

The most notable outlier is a now-deleted tweet published by the Russian Embassy in the UK from November mocking the Ukrainian president Volodymyr Zelensky, gaining over 16 000 likes.[3] The tweet gained widespread attention due to the events of the time but also due to widespread accusations of anti-semitism by portraying the Ukrainian president with a "Jewish nose", an old anti-semitic trope.

Russian state affiliated accounts also frequently posted links to externals sites. Such external links include websites owned by the Russian government or links to social media accounts operated by the Russian government on other platforms such as Facebook and Telegram. On occasion these accounts would also post random articles from Western media publications whenever such articles would somehow support Russia's talking points or align with the state's grievances. For example the Russian foreign ministry's Twitter account promoted an article titled "The British Empire Was Much Worse Than You Realize"[4] from the New Yorker for no apparent reason other than

---

1. See Appendix A for the full list of Tweets.

2. At the time of data collection, a Tweet's views were not a public metric.

3. The highest observed likes collected during the data collection phase was 16 692 likes before the embassy account itself removed the tweet. An archived version can be found at `https://archive.ph/Gbvob` (Retrieved 9.10.23).

4. See Appendix A, Tweet Id: 1514268989672898566 or `https://twitter.com/mfa_russia/status/1514268989672898566` (Retrieved 12.10.2023)

it being an attempt to undermine the United Kingdom's support for Ukraine. These accounts would also on occasion post content from Russian state-affiliated media accounts such as *Russia Today* as an attempt to circumvent the visibility restrictions placed by Twitter on the official RT accounts for users in the European Union.[5]

While these tweets were primarily used to collect user data for further study, they were also used to assess the viability of using sentiment analysis to automate classification for larger clusters of tweets. Such use cases could include filtering or sorting various topics by their mean sentiment values. Figure 8 illustrates the sentiment polarity scores[6] for the English tweets used to collect user data. In total 130 were classified as being overall negative ($\leq$-0.05) versus 54 positive ($\geq$0.05) tweets. The overall distribution of scores is unsurprising since the tweets were handpicked but even then 'neutral' and 'positive' tweets are generally overrepresented. Tweets with a polarity score of 0 are for the most part tweets that rely on external links or multimedia for additional context and thus are not necessarily classified correctly. Tweets that are classified as positive are also occasionally incorrectly classified. For example, a tweet falsely blaming Western media for being "an accomplice in the massacre in Bucha"[7] had a positive classification due to the closing statement of "The truth will always prevail". Likewise certain words that are frequently used by the Russian state's social media accounts such as 'Nazi' are classified as neutral words, meaning that negative scores are generally underrepresented.

---

5. See Appendix A, Tweet Id: 1515686215214931969 or `https://twitter.com/mfa_russia/status/1515686215214931969` (Retrieved 12.10.2023).

6. Calculated using the NLTK library with the default VADER lexicon. See `https://github.com/cjhutto/vaderSentiment/blob/master/vaderSentiment/vader_lexicon.txt`

7. See Appendix A, Tweet Id: 1512159243134242821. Also available at `https://twitter.com/mfa_russia/status/1512159243134242821` (Retrieved 12.10.2023).
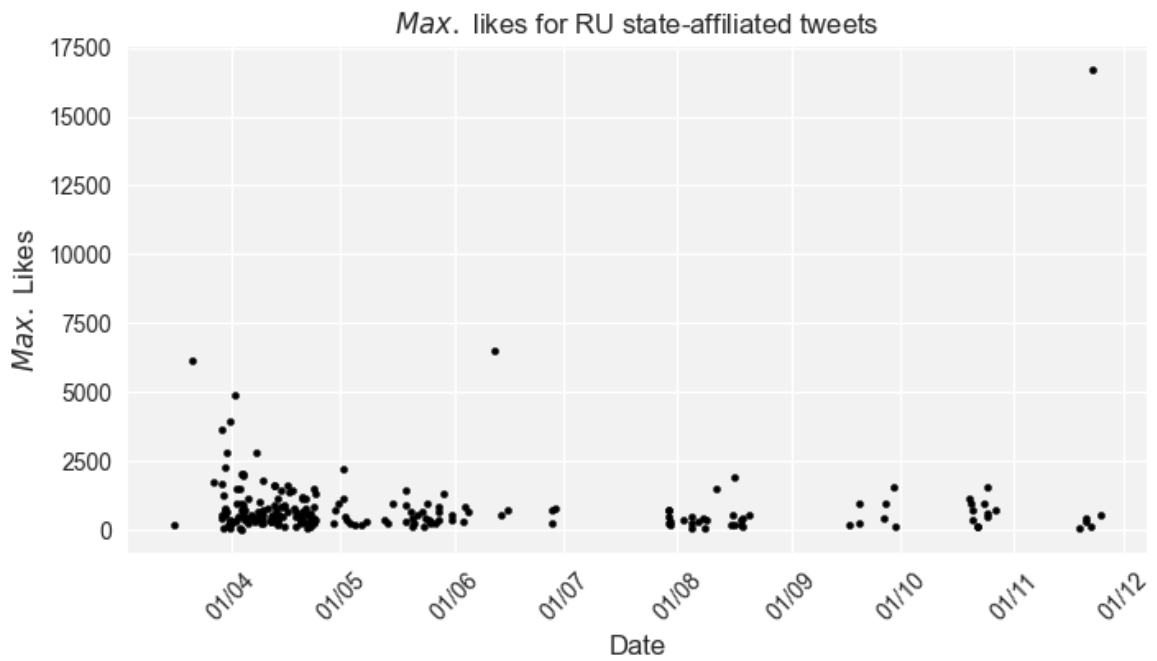
Figure 7: Tweets from Russian state-affiliated accounts by date and highest observed like count. The 'Max' number of likes was a tracked metric which was updated every time a tweet was used to collect new accounts. This datapoint was tracked because many tweets from Russian government accounts would frequently get their engagement disabled for violating the Twitter terms of service.
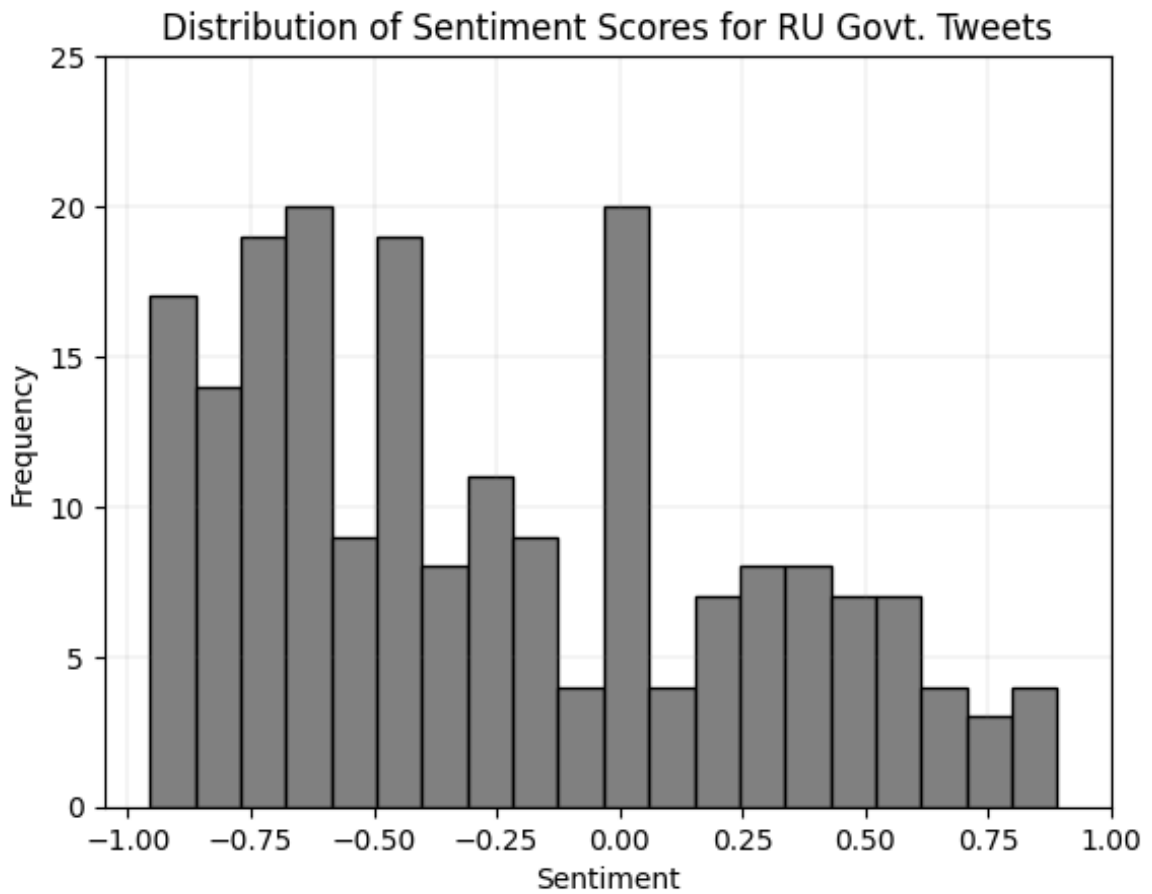
Figure 8: The distribution of sentiment scores for the tweets selected to collect user data. Scores are calculated using the NLTK library and exclude non-English tweets or tweets that were exclusively multimedia.

6 Bots and Their Prevalence

One of the general challenges when it comes to monitoring the information space, particularly one which is targeted by bad faith actors, is having a broad understanding of how much content is created by inauthentic users. While bots are not the primary subject of interest in this thesis, they can introduce noise, and thus their prevalence is of interest.

This chapter discusses metrics, challenges and means of identification that have been used to approximate the prevalence of bots and their potential impact. Section 6.1 provides a couple of examples of bot networks that were discovered during research and how they operate. Section 6.2 discusses the results from the Botometer API which were used to try and understand which accounts behave or share traits frequently associated with bots. Section 6.4 discusses how the main observations of sections 6.1 and 6.2 affect this paper and what the reader should bear in mind.

6.1 Bot Networks

During research for this thesis two major bot farms were identified after data had been collected in 2022. These bot farms do not appear to have accounts in the dataset collected in 2022 but they exhibited behaviors and characteristics that warrant further study.

6.1.1 'Like' Bots

The first bot farm was a relatively easy to identify network of bots which would amplify engagement metrics by using the 'like' button. This network was first spotted amplifying Igor Lopatonok's[1] tweets claiming that Bucha was a "staged false flag by Ukrainians and they Masters". See Figure 9.

---

1. Lopatonok is a film director who is best known for his films with Oliver Stone regarding Ukraine. One of his films was among the most shared external URLs among accounts collected in 2022. See Section 8.2.

The accounts amplifying tweets shared extremely common characteristics. They never tweeted but had 'liked' thousands of tweets. Other shared behaviors included names that were completely gibberish and profile pictures that were either the default profile image or a repurposed image likely picked from a search engine.[2] Given the highly varied content that these bots amplified, it appears that this particular network of bots existed for financial gain rather than to amplify political narratives or even build up an organic following.

6.1.2 The Fake News Bot Network

The second bot network displayed behaviors that are far more in line with previous known disinformation campaigns. This network utilizes various tiers of bots in order to redirect users to fake news sites that are designed to deceive readers into thinking that they are reading well-established publications.[3] There appear to be at least three different tiers of bots. These will be referenced as: follower bots, link bots, and false identity bots.

Follower bots appear to be from a separate network that is not directly tied to the other two types of bots. Their purpose is to increase the follower counts of amplification bots as well as the bots that make an effort to appear as real people. The suspicion of the follower bots being from a separate network is due to the fact that the follower bots also amplified accounts that posted cryptocurrency related scams as well as child exploitation material. Bot accounts that amplify such illegal content generally have a far shorter lifespan making such behavior counterproductive for disinformation campaigns. As of late 2023 or early 2024, these follower bots are no longer used. Instead, the bot network operates on two tiers with one account posting links and hundreds or even thousands of amplification bots quoting the post.

---

2. Note that some novel bot networks use AI generated profile pictures to thwart reverse image searching and to create more believable profiles. This network made no such attempts.

3. As of late 2022, publicly available reports show that these bots were a part of the Doppelganger operation. See `https://www.disinfo.eu/doppelganger-operation/` for more information and public reports.
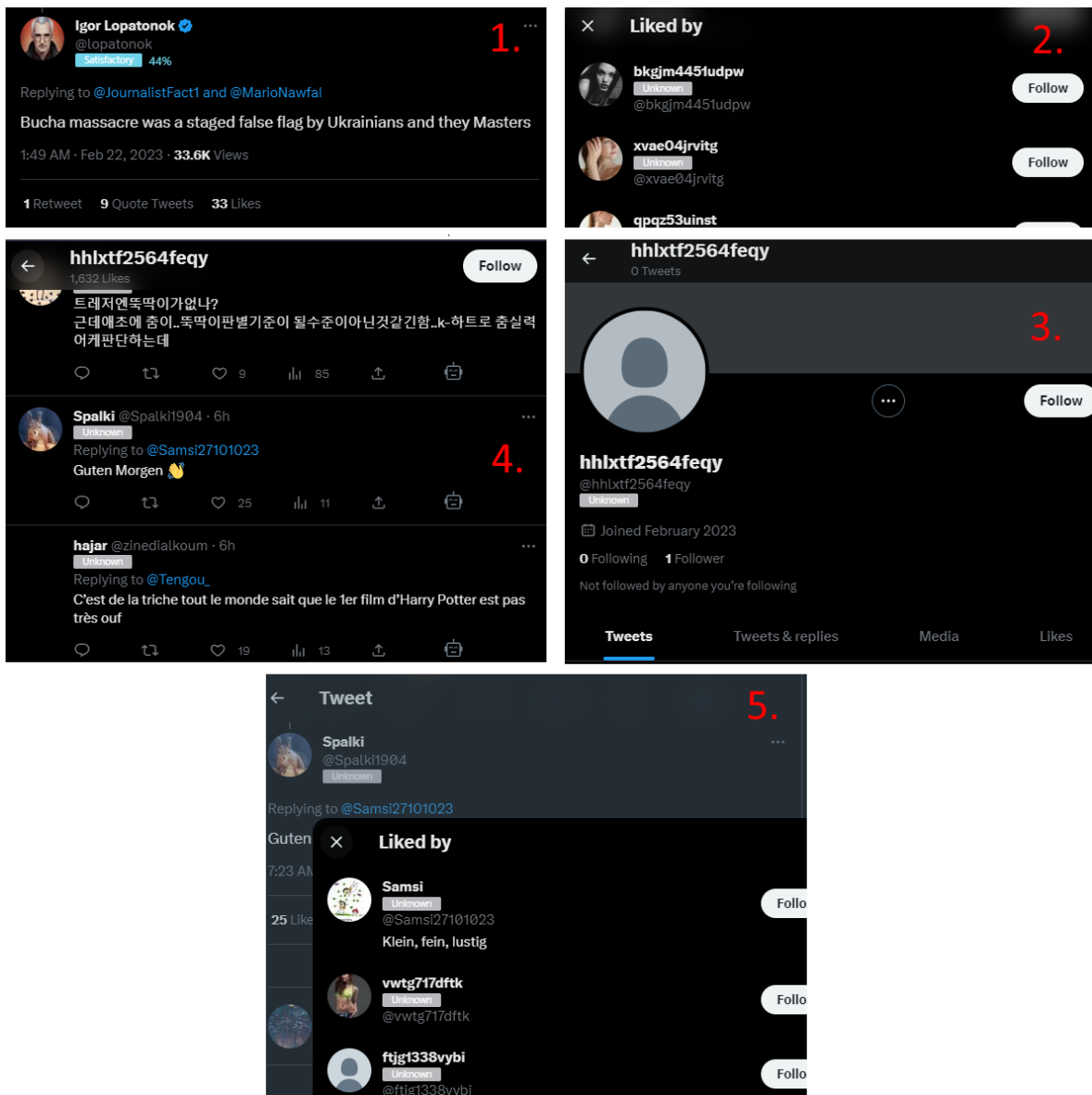
Figure 9: An illustration of how amplification bots can be spotted. Image 1. shows a tweet that was heavily 'liked' by amplification bots. Image 2. shows the accounts that 'liked' the tweet. All of them either have an image repurposed from the internet or the default avatar. Image 3. shows the profile of one of these accounts. Note the total of zero tweets. Image 4 shows the 'likes' of this account which is over 1 600 tweets. Image 5 displays the likes for a tweet that was found in image 4. showing the greater extent of the same network of bots. All bot accounts were suspended shortly after this image was taken. Note that Botometer cannot fully analyze these accounts properly due to the fact that their timelines are empty.

The link bots reply to well known newspaper Twitter accounts with a fake link to what appears to be an article with a sentence of supplementary commentary. These accounts will post fake articles along with short commentary in several different languages including, but not limited to, English, French, German, Ukrainian as well as Hebrew. Each article seems to be tailored to various audiences. For instance German articles blame The Greens for the decline of the German economy. Similar articles targeted Israeli audiences with imagery that emphasizes one of the recurring Russian narratives of "rampant Nazism" in Ukraine.[4]

The links that are posted by these bots redirect the user to a generic site with gibberish text. From here, the website acts as a middleman and redirects traffic to the appropriate article based on the URL route. It should be noted that the full URL route is not visible on Twitter and the final destination is reached through multiple URL redirects.[5]

Once users are redirected to the article, they are usually redirected to a website which is designed to impersonate a well-established media outlet. These outlets are language dependent. For instance, English articles will redirect the web client to a copy of *The Washington Post* with the domain `washingtonpost.ltd` and French articles will redirect to a clone of *Le Point* with the domain `lepoint.foo`. The fact that these sites are perfect copies of the original sites, with the exception of the made up article, also means that we can approximate when copies of the original pages were taken. The snapshot of the *RBC-Ukraine* website was taken on February 20, 2023, the copy of *The Washington Post* is from February 16, 2023, and the *Le Point* clone appears to be a template from May 7, 2023.

Sometimes link bots will also post URLs that redirect to fake news sites that pretend to be a reliable news source but do not pretend to be a well-established news source. The social media account for the English version of of these sites were created around the same time, February 2023. Figure 11 illustrates roughly how link bots drive outbound traffic.

---

4. For example, see Figure 10.

5. For a full technical breakdown of URL redirection techniques used by the Doppelganger operation, see Qurium Media Foundation 2024.
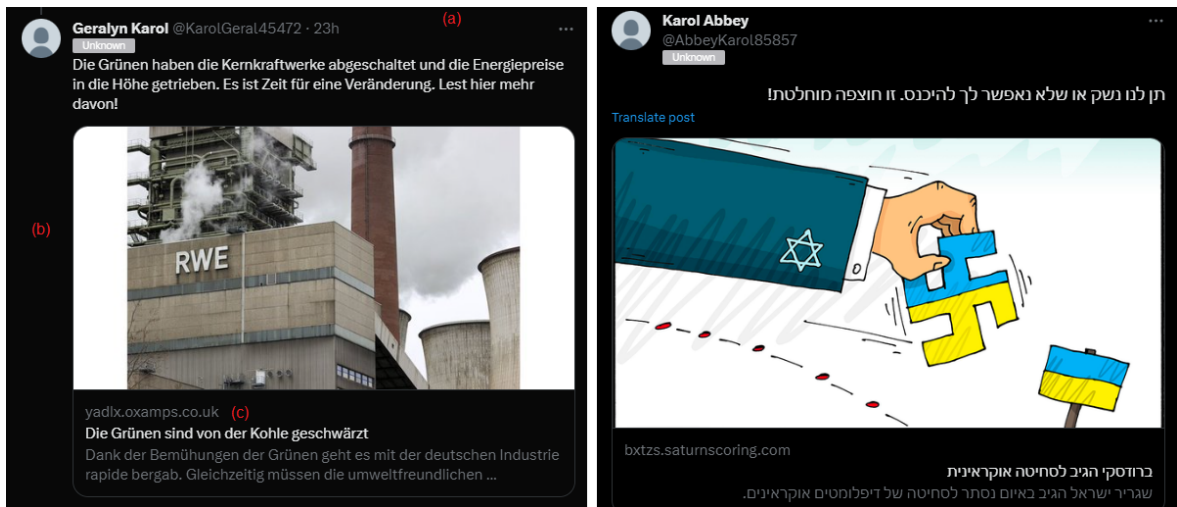
Figure 10: An example of link bots and some common characteristics. Note the following common traits. **(a)** These bots also provide a sentence of commentary along with outbound links. **(b)** Content is formatted in a way where Twitter correctly identifies the image, title and description similar to a regular news article. **(c)** Twitter obfuscates URL parameters meaning that the only way to read the article is to click the link. Copying the URL will cause the user to be stuck at the URL redirection site.

The final tier of bots are false identity bots. These bots will generally have a more human-like profile with a profile picture of a person, first name as well as a last name. These accounts will occasionally post original content in the form of text or multimedia which is then quoted by the link bots in replies to other tweets. See Figure 12. They will also add hashtags to each post, which appear to be associated with the top trends in the target audience's country at the time. The number of hashtags used per tweet appears to fluctuate, depending on how many can be fit within Twitter's character limit. It is evident that their goal is to use the latest trends to maximize their reach.

Figure 12 also illustrates a recurring pattern that is seen in Russian propaganda that warrants emphasis. This example comes from a bot that has adopted a false French identity. The bot in question expresses frustration over the the Leopard main battle tanks (MBT) that "we" sent to Ukraine and how the Ukrainians "lost dozens of them in a single battle". The main problem with this claim is that the French have not, in fact, sent a single Leopard MBT since they do not operate them. To Russian propaganda
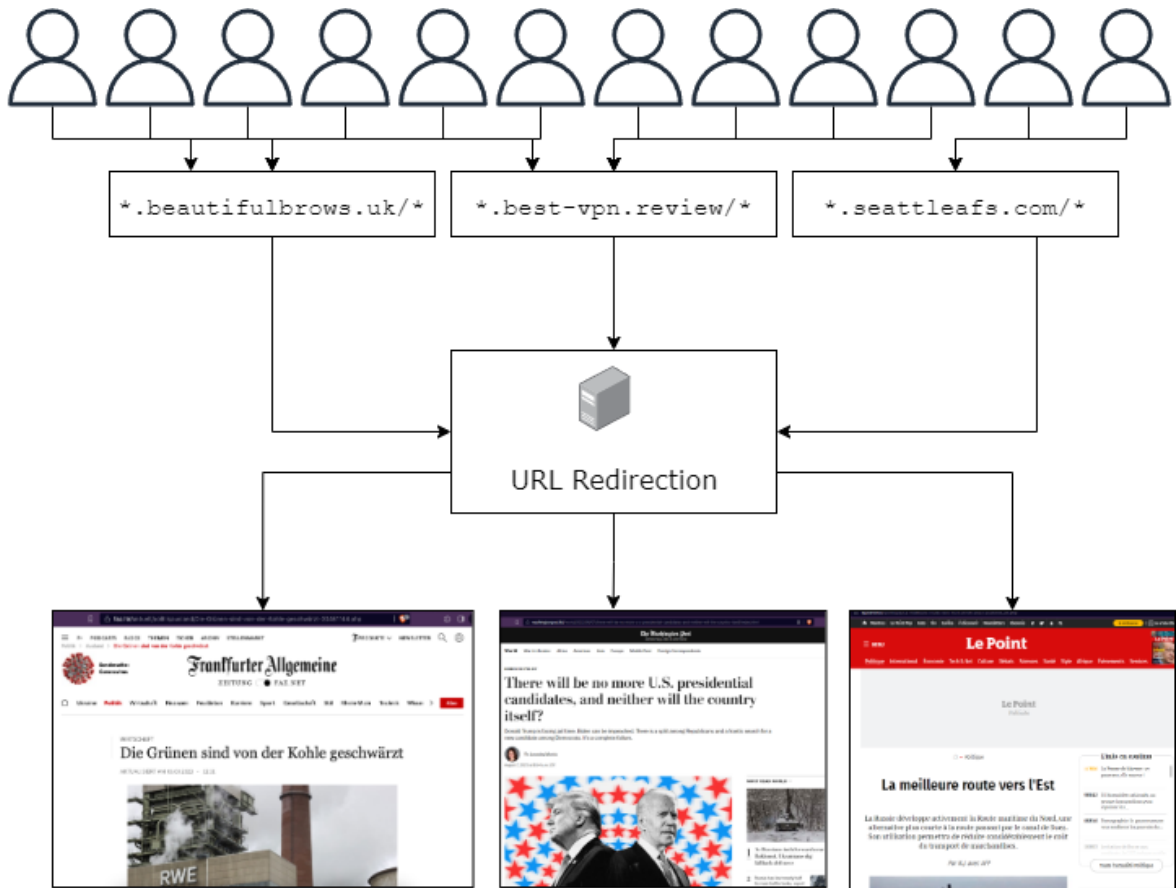
Figure 11: A general overview of how links posted by bots drive outbound traffic to fake news websites designed to impersonate popular publications. URL redirection happens in four stages, including redirecting traffic through advertisement tracker domains. See Qurium Media Foundation 2024 for more details.

Figure 12: Two examples of content posted by the same false identity bot. By September the format of multimedia was changed to a still video without audio. This is likely a shift in tactics to evade detection or maximize reach.

such details and logical consistency are not a primary concern. What is more important is to exploit the anxieties and challenges that the target is experiencing. Whether France sends imaginary Leopard MBTs or AMX-10RC armoured fighting vehicles is a distinction without a difference. What matters is that the perceived costs of supplying Ukraine raises concerns to a portion of the French general public that can be exploited.

False identity bots can evade detection longer due to the fact that they do not actively seek to amplify their content but rather rely on other bots to do so. These bots also seem to show some precautions such as changing the format of media from still images to video, possibly as a means to avoid automated text recognition that utilizes optical character recognition (OCR). Note that these accounts also utilize hashtags extremely heavily, mirroring behavior closer to how the IRA conducted its disinformation operations.[6]

One of the common misconceptions around bots is that people appear to associate bots with newer accounts. While it is generally true that follow and link bots are usually a few months old before they were activated, many of the false identity bots are older

---

6. See Table 7 for a direct comparison of data collected during 2022 versus publicly available IRA data. False identity bots utilized hashtags very similarly to how the IRA accounts did in 2016, unlike most accounts identified in the 2022 user dataset.

accounts that appear to be from 2012. The most notable exception to this appears to be the false identity bots which pretend to be Ukrainian nationals. Those were far newer and were created during June 2023.

Overall this network appears to have very little exposure,[7] even when replying to popular accounts. However, Twitter is not the only medium through which these links and fake news sites are spread. This makes the actual extent of the operation's reach far harder to quantify.

6.2 Botometer Data

Botometer is an automated tool that has been used in academic research for bot classification on Twitter using an account's metadata and tweets (Yang, Ferrara, and Menczer 2022). Rightfully understood, Botometer is a machine learning classifier that uses account features to identify bot-like behaviors, not a definitive indicator of whether an account is a bot or not and as such is prone to false positives and negatives.

Botometer results are returned as several values. Firstly, the Complete Automation Probability (CAP) score provides Bayesian posterior that can be used as a probabilistic measure of the likelihood of an account being a bot (Yang, Ferrara, and Menczer 2022, p. 1516). Scores are also broken down into several subcategories: `astroturf`, `fake_follower`, `financial`, `other`, `self_declared`, `spammer`, and `overall`. These scores are represented between 0..5. See Figure 13 for CAP score distributions for accounts sampled in 2022. Figure 14 shows the notable outliers when it comes to accounts with high CAP scores and that an account having a higher CAP score do not show any higher likelihood of more frequent positive engagement with Russian official Twitter accounts.

It should be noted that the high frequency of accounts with high CAP scores should not be taken at face value and that there are several caveats that also need to be taken

---

7. Generally, most false identity bots appear to have less than a hundred views despite being up for at least three months. Bots that reply to popular accounts to spread outbound links frequently had less than ten views after several days, though these bots had a much shorter lifespan.

into account. Firstly, language and sentiment variables are trained on accounts that use English, potentially affecting classification of non-English accounts (Yang, Ferrara, and Menczer 2022, p.1515). While tweets in English are the primary subject of interest for content analysis, the dataset collected in 2022 contains users from a multitude of countries, potentially causing issues with classification.[8]

Secondly, for 375 accounts Botometer returned a "NoTimelineError". This error is likely attributable to users who have not engaged in any tweeting or retweeting. It appears that Botometer-V4 struggles to accurately classify these accounts.[9] This limitation unfortunately results in the potential exclusion of certain types of amplification bots, as illustrated in Figure 9, which have not posted any content on their timelines but have engaged in "liking" tweets. Moreover, it is problematic to simply assume that accounts in the dataset that do not actively participate in conversations are bots. There is no universal behavior dictating how social media should be utilized and a considerable number of legitimate users consume information on social media without any inclination to express their own views.

Finally, the precise features that influence classification remain somewhat ambiguous. This ambiguity poses a significant challenge, as there is a substantial likelihood that the types of accounts under analysis, or the methodology employed for account selection, may disproportionately represent certain features. These characteristics could potentially be utilized by Botometer to yield false positives or negatives. For instance, if account creation date is employed as a feature for classification[10] and newer accounts are considered to be more bot-like, then there is a high chance that a significant portion of users in this dataset will be classified with a high score.[11]

While bot accounts are typically associated with recent creation dates, alternative explanations exist for the surge in newer accounts, particularly in late February 2022. Twitter had a reputation as a social media platform with broad coverage for breaking

---

8. See Figure 21 for the top twenty self-reported locations.

9. Botometer lite, which classifies based solely on metadata, may be capable of classifying these accounts.

10. This is stated vaguely as a contributing feature. See Yang, Ferrara, and Menczer 2022, p. 1514.

11. See Figures 19 and 20

news stories. Therefore, a significant event driving both new and returning traffic is not necessarily unexpected and may not even be exclusive to bots or other inauthentic accounts.

Another feature that warrants further examination is the sentiment expressed in tweets.[12] If, for instance, frequent tweets with strong negative polarity are used to determine that an account is more bot-like, this could significantly influence the classification, given that these accounts are selected based on their support for the aggressor in a military conflict. Furthermore, these accounts often employ strong language to describe perceived adversaries,[13] which would likely contribute to their classification as well. Certain words and topics, such as discussions relating to vaccines also appear to cause false positives with Botometer (Gallwitz and Kreil 2022, pp. 74-76). Given the prevalence of discussions regarding COVID-19 and the vaccines,[14] it is possible that those discussions inflate Botometer scores.[15]

False positives are not the only concern, however. During research for this paper several accounts where discovered which appear to use large language models (LLMs) to generate Tweets. While none such accounts were discovered in the dataset of accounts collected in 2022, this is an area that needs to be taken into account in any future study. Figure 15 illustrates some example accounts that have since been suspended. These accounts are not necessarily a part of a singular network and represent what is a future threat to social media networks as LLMs become more accessible either due to lower hardware requirements or accessible APIs. Botometer's accuracy, particularly when it comes to novel characteristics is a known potential issue (Yang, Ferrara, and Menczer 2022, p.1515).

---

12. Sentiment is mentioned as being used for classification but it is unclear exactly to what extent. Such language features can cause issues with classification when it comes to non-English accounts. See Yang, Ferrara, and Menczer 2022, pp. 1514-1515.

13. This is discussed further detail in Chapter 9. For example, Figure 30 highlights some words often associated with Ukrainian president Volodymyr Zelensky.

14. For example, Pfizer is one of the most discussed brands identified by Twitter's NER annotations. See Figure 29 for the most commonly referenced brands.

15. See Section 9.3.2
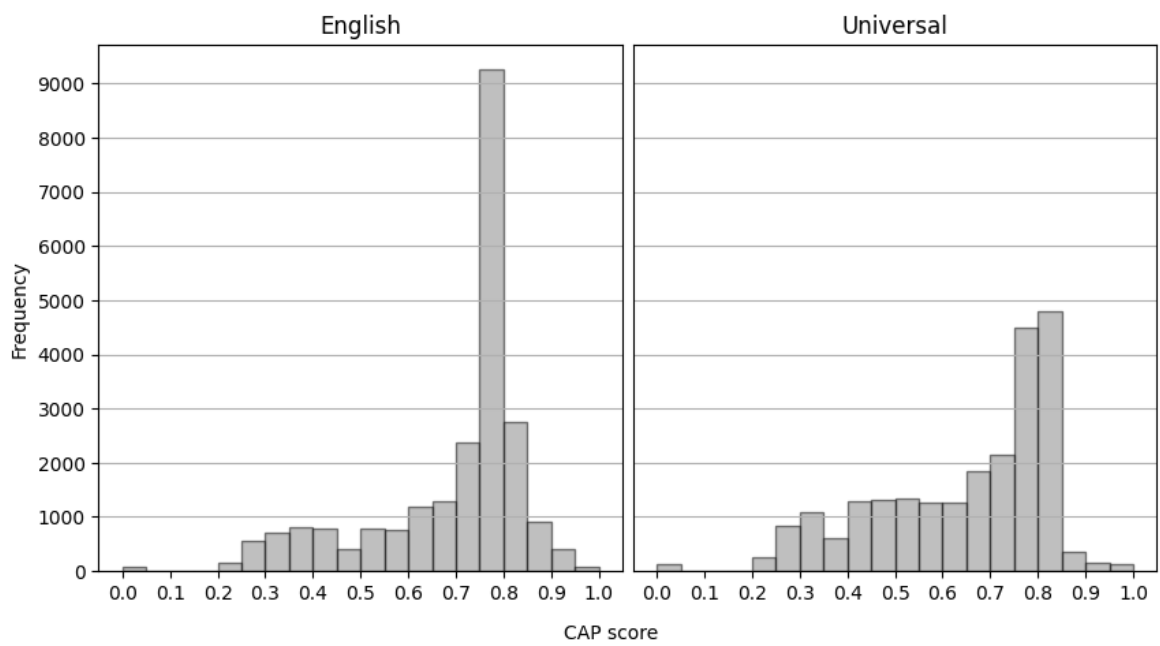
Figure 13: Distribution of account CAP scores for accounts with Botometer data available ($N = 23290$).
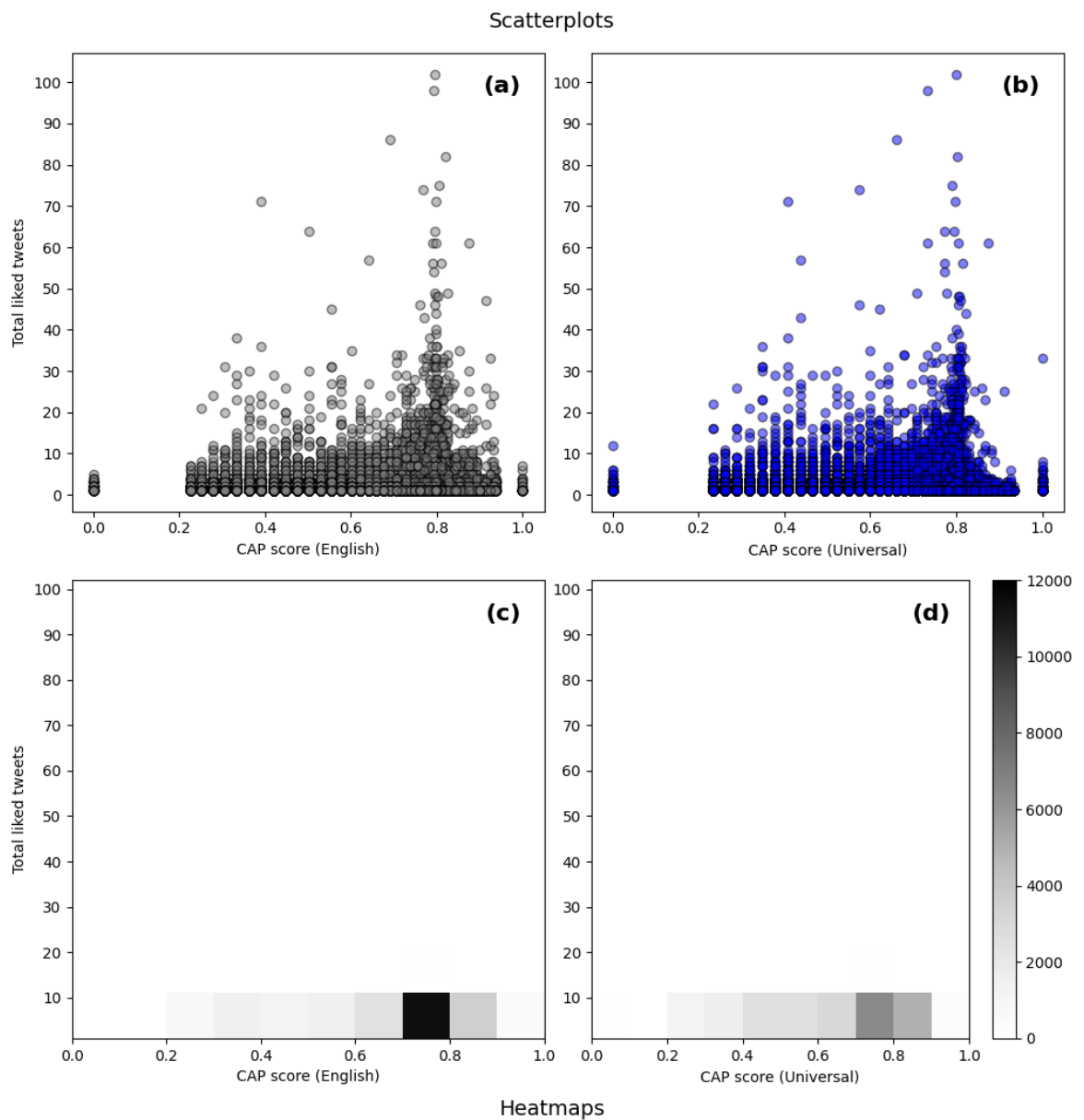
Figure 14: Scatterplots and density heatmaps for Botometer CAP scores. The scatterplots illustrate the outliers while density heatmaps illustrate a more accurate general overview. The overwhelming majority of accounts have 'liked' less than ten tweets from Russian government accounts regardless of the CAP score. There is no notable correlation between an account being more likely to be a bot with the number of tweets liked. ($N = 23290$)
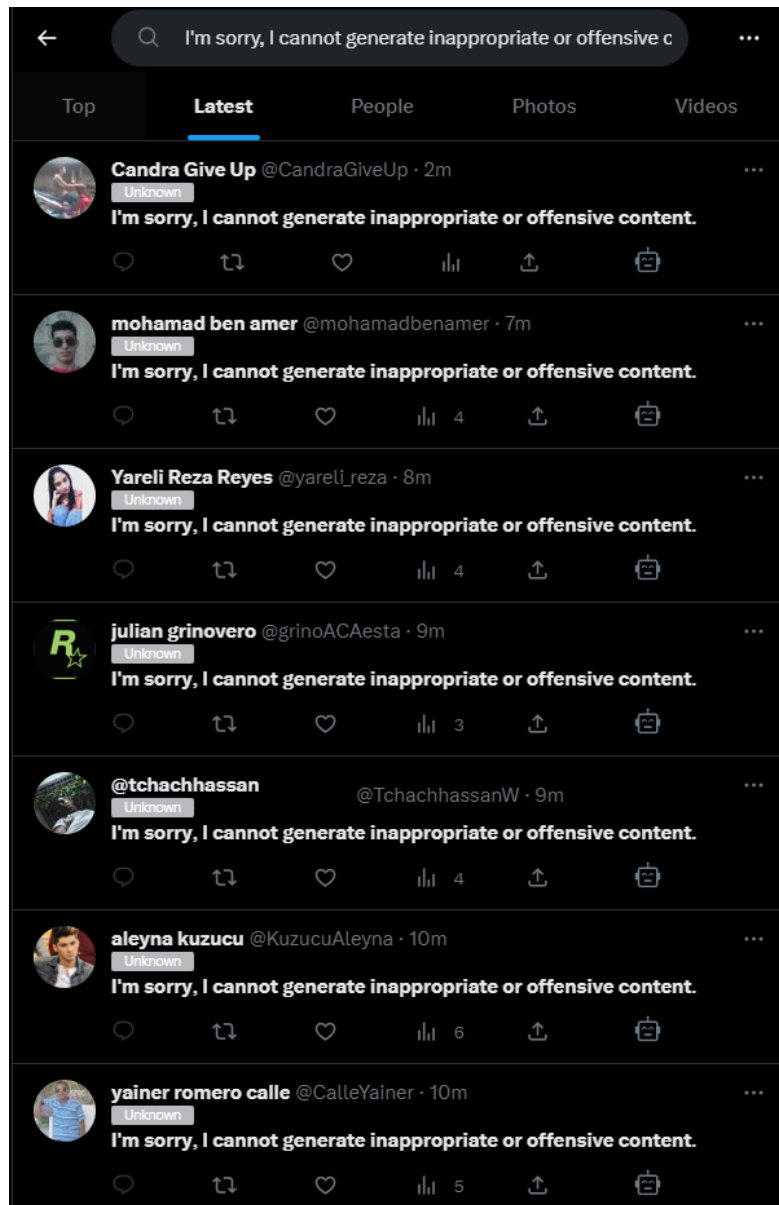
Figure 15: Screenshot showing bots using a language model to generate content. One of the accounts that was not yet suspended only scored a 0.6 out of 5 from Botometer as of early 2023.

6.3 Identifying Bots by Retweets

A report published by the American Sunlight Project (ASP) identified a bot network of at least 1 187 bots. This report was of great interest as it used a methodology to collect potential bot accounts which is similar to the one used in this thesis. Instead of relying on "likes", however, they used retweets to identify inauthentic accounts by monitoring which accounts would retweet tweets within a minute at least five times (American Sunlight Project October 2024, pp. 4-5). The report also singles out a handful of accounts that had not yet been suspended. This was helpful as it provided some live examples of behavior and patterns.

Given data availability constraints put in place after Musk's acquisition of Twitter, such as removing public access to the API and private "likes",[16] a similar approach was taken to scrutinize further the retweets of users collected in 2022 with data that had already been collected.

Figure 15 illustrates the general overview of accounts that retweeted tweets from official Russian government accounts. Out of 27 410 accounts in the full dataset, 4 686 (17%) accounts retweeted at least one tweet. Out of these 4 686 accounts, only 535 accounts retweeted more than five tweets. Given data availability constraints, the two bins with the highest number of retweets (41-45 and 46-50) were focused on to properly allocate the time needed to manually review said accounts.

In total, only 24 accounts retweeted more than 40 tweets from official Russian government accounts.[17] Out of these accounts, 17 accounts were owned by the Russian government. Out of the remaining accounts, one was suspended and the rest exhibit highly inauthentic behaviors and are still active or have yet to be suspended.

Focusing on these six accounts, each of them behaves slightly differently. These obser-

---

16. This would have been useful to access. Since some bots only engage in a singular function such as retweeting or liking tweets, it could have been an easy way to assess the capability that these bots have.

17. Note that given the methodology used to collect data, these retweets would represent at least 80% of collected tweet samples for these accounts. See Section 4.1.1 for more information.
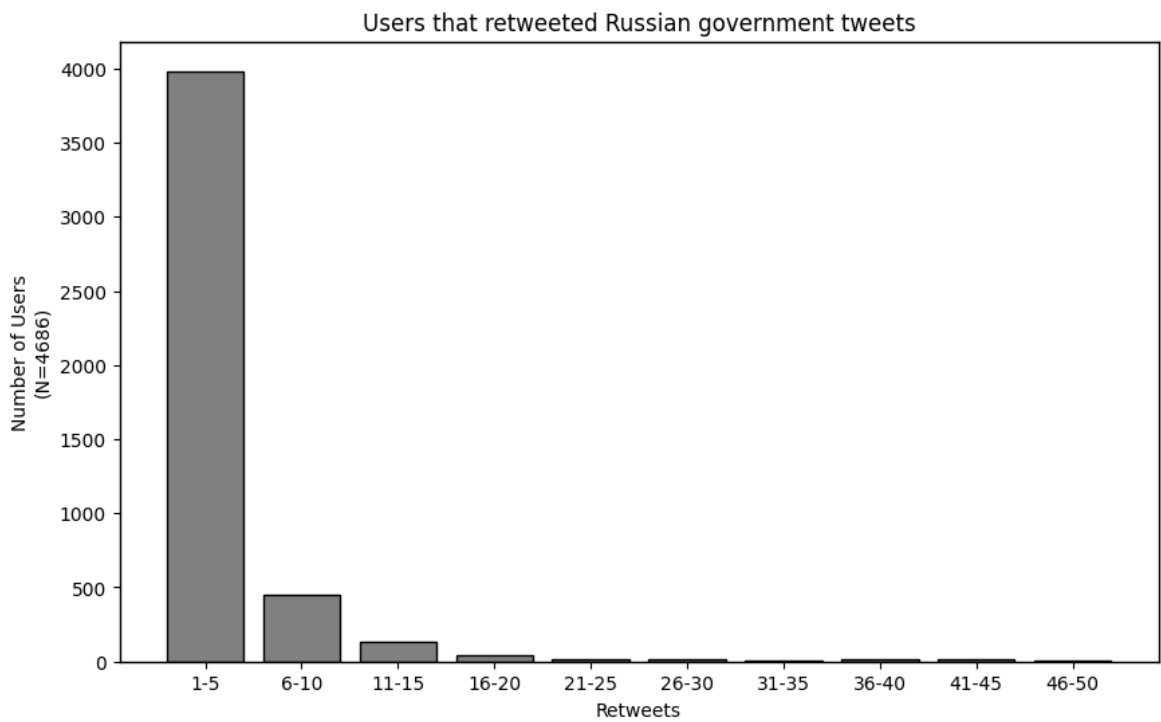
Figure 16: Overview of accounts that retweeted content from Russian government accounts. Out of the 27 410 accounts in the full dataset, tweet samples showed only 4 686 accounts retweeted content from official Russian government accounts.

vations and descriptions are made from account behaviors observed as of October 11, 2024.

- **Account 1:** Each tweet sample collected in 2022 from this account was a retweet from an official Russian government account. As of October 2024, every tweet from the last fifty tweets is a retweet, however, not a single tweet is from a Russian government source. This account retweets almost exclusively content in Japanese. The only visible exception is a retweet from the @TeamTrump Twitter account, dating back to July 2024.

- **Account 2:** The second account retweeted 47 Russian government tweets back in 2022. By ordering retweets by creation date, the second account had also managed to retweet three different tweets in four seconds. Many other accounts also retweeted several tweets in a suspiciously small time frame, only to remain inactive until at least the next day but this appears to be the smallest visible timeframe.[18]

  As of 2024, the account retweets an extensive amount of pro-Russia footage, however, it does not retweet any content from official government accounts. Instead, it posts video footage showcasing Russian materiel. Most of this footage appears to be the same footage that the Russian ministry of defense releases on other platforms. One tweet which sticks out is a tweet commemorating the Battle of Borodino in Russian. By using the tweet's text body as a search query, we can identify other inauthentic accounts sharing the identical text and attached graphic. See Figure 17.

- **Account 3:** Much like Account 1, this account retweets content almost exclusively in Japanese. The content is mostly retweets from official Russian government accounts. This account has been inactive since August 2023.

- **Account 4:** Account 4 has been inactive since April 2022. The account was originally registered in 2011 but the oldest tweet from the account dates back to

---

18. Other accounts that exhibited similar behavior had a gap of at least three seconds between each retweet. This appears to be the only account where that gap between a series of retweets was less than that.

March 1st, 2022. The overwhelming majority of the account's content is retweets of Russian government channels. An exception to this is a link to the Russian version of the "War on fakes" Telegram channel mentioned in Chapter 2, posted on March 1st, 2022.

- **Account 5:** Account 5 has shifted its behavior quite drastically. In the 2022 tweet samples the account in question retweeted tweets from Russian government controlled accounts almost exclusively.[19] Since then, the account has started to share pro-Russian content (both original content and retweets) that are almost exclusively in Japanese. The biggest shift in behavior is the lack of retweets of Russian government accounts. Instead, the account shares pro-Russian content from accounts that are, or at least adopt the persona, of being an authentic account.

- **Account 6:** Account 6 has been inactive since June 2023 and was originally registered during February 2022. The content shared by this account is a mixture of retweeting Russian government accounts as well as retweets from well known pro-Russia accounts. Unlike the other accounts highlighted, it did not appear to display any significant shift in behavior from 2022 until it stopped being active.

These six accounts illustrate that focusing on retweets provided a reliable way to identify accounts that exhibit inauthentic behaviors. It also illustrates how many of these accounts have shifted their behaviors since 2022.

---

19. 42 out of the 50 sample tweets were retweets of Russian government accounts. The remaining tweets appear to be retweets of TASS and Sputnik.
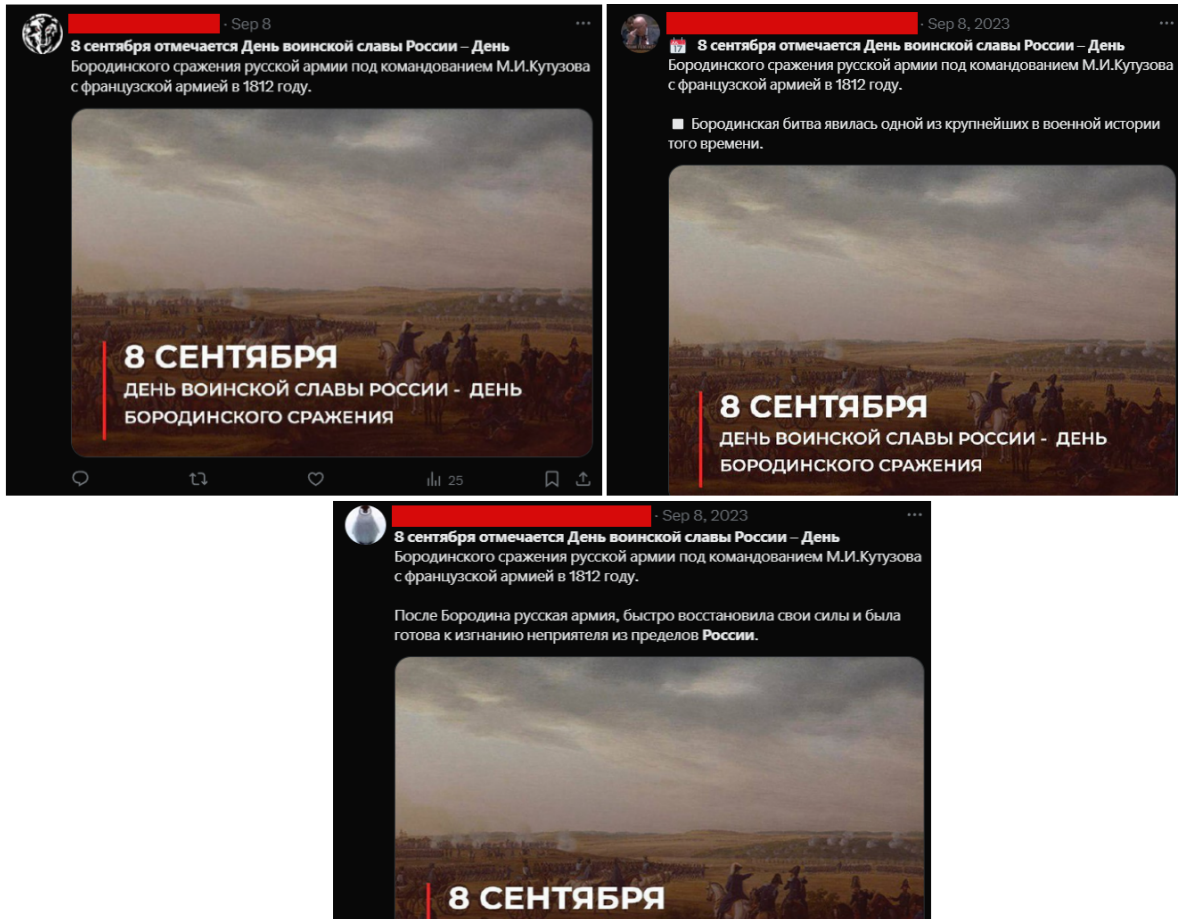
Figure 17: Overview of accounts commemorating the Battle of Borodino using the same phrasing and graphics. There were several other accounts which had identical or similar phrasing but used different graphics. The original graphic appears to be from a Russian Government controlled Telegram channel.

6.4 Discussion About Bots

As illustrated in the previous sections, there is demonstrable evidence of bots and other inauthentic accounts partaking in and promoting discussions relating to Russia's invasion of Ukraine.

The most reliable method to identify accounts that consistently exhibited inauthentic behavior was to simply check which accounts had a large proportion of their sample tweets be retweets of official Russian communication channels. A manual review of the accounts of the worst offenders[20] shows that many of these accounts are either inactive or have shifted their behavior to other consistent and predictable patterns but do so in a way that does not promote the Russian government itself but rather its interests. Readers should note that this methodology did not allow the identification of a large number of bots, only that it was a consistent way of identifying accounts that showed inauthentic behaviors. If we were to assume that all accounts that retweeted Russian government tweets over five times were bots, that would at most be 535 accounts.

As for the accounts that are a part of the 2022 dataset, and processed by Botometer, the picture is far less clear. The distribution of CAP scores are possibly affected by variables such as Tweet sentiment and account creation date which can be explained due to other factors as described in section 6.2.[21] There are some instances where Botometer is decent at approximating bot-like behaviors. For example, when using a conservative threshold of a CAP score of ≥ 0.95 we can observe a small cluster of 65 accounts which according to Botometer are highly likely bot accounts. After manually reviewing these accounts, most of them do in fact appear to be bot accounts. However, the common denominator appears to be accounts that 'like' Tweets by verified[22] and popular accounts, not egregious amplification of the Kremlin's narratives as demonstrated in Section 6.1. Even when setting a very high CAP score as a cutoff point, there are still instances where some accounts are verifiably genuine or possibly users

---

20. Excluding official Russian government accounts which also engaged in similar behavior.

21. Out of the 65 accounts with a CAP score of ≥ 0.95, only two accounts appeared to 'like' pro-Russian narratives consistently.

22. "Verified" in this context refers to the verification system that was in place prior to Musk's acquisition of Twitter in late 2022.

who just use Twitter to read content rather than contribute by posting on Twitter. This includes accounts with exactly one post which Botometer will automatically rank a score close to the maximum. This behavior is reproducible with other accounts with only one post (Gallwitz and Kreil 2022, pp. 71-72).

For reference, we can compare Botometer's results to other data points such as suspensions. As of late September 2023, 518 accounts which had Botometer scores had been suspended and the total number suspensions of accounts from the full dataset (N=27 410) was 2 405, representing less than ten percent of all accounts. Even if we were to operate under the assumption that every suspension was due to the account being a bot, the distribution of CAP scores is significantly off, unless we are willing to also assume that Twitter only bans a minuscule portion of bots.

We can also compare the accounts collected for this thesis with a list of accounts published in an affidavit in 2024. That list includes Twitter accounts that were identified as a part of a bot farm that was developed by *Russia Today*.[23] The affidavit in question includes 968 Twitter accounts, out of which 207 would have been in a date range where they could have been scanned.[24] None of the bot accounts in the list provided by the U.S. Department of Justice were in the list of accounts collected using the methodology described in Section 4.1.1.

Table 3 also illustrates that accounts which were suspended did not have higher statistical significance when it comes to CAP score median and mean values. The six accounts manually reviewed in Section 6.3 all had 'Universal' CAP scores higher[25] than the median and mean seen in Table 3, however, the fact that Botometer also introduces so many false positives in this score range means that it is not a reliable cutoff point to make broad assumptions.

---

23. For the full press release by the U.S. Department of Justice, See `https://www.justice.gov/opa/pr/justice-department-leads-efforts-among-federal-international-and-private-sector-partners` (Retrieved: 10.7.2024)

24. For the full affidavit, including a the list of bot accounts, See `https://www.justice.gov/d9/2024-07/affadavit_for_968_x_accounts.pdf` (Retrieved: 10.7.2024)

25. One account had a score of 0.75. The rest had scores of $\geq$0.8.

Metric	Suspended Accounts (N=518)	Non-Suspended Accounts (N=22 772)
Mean English score	0.699	0.695
Mean Universal score	0.679	0.647
Median English score	0.776	0.772
Median Universal score	0.733	0.709

Table 3: Comparison of English and Universal Scores for Suspended and Non-Suspended Accounts with Botometer scores available. Suspension status retrieved September 2023, Botometer scores retrieved February 2023.

While we should definitely not assume that all suspensions within the dataset are due to accounts being bots, one of the main reasons for suspension does appear to be inauthentic accounts using automation.[26] Given that Botometer scores for both groups are generally close, it does appear that certain factors are causing false positives. For reference, while suspensions are not a definitive metric, the total suspensions in the dataset[27] account for 8.77% of all accounts. This number is very close to statistics that Twitter provided in 2018, claiming that around 8.5% of accounts use automation and around 5% of accounts were involved in spreading spam (Timberg and Dwoskin July 2018). The number also deviates heavily from the observations made by the ASP's findings, which show that in a similar timeframe, 26.8% of bot accounts had been suspended or deleted (American Sunlight Project October 2024, p. 6).[28]

In summary, the actual number of bots in the dataset is likely to be considerably lower than Botometer's CAP score distribution suggest. Some accounts with consistent, inauthentic behaviors were identifiable but the actual numbers appear to be low. Better data availability would be required to fully assess the scale, however, most data points available do not support the results that Botometer would suggest.

---

26. The clearest examples within the context of this paper are illustrated in Figures 9, 10, and 15.

27. 2 405 suspensions out of a total of 27 410 accounts, including accounts that were suspended before they had been analyzed by Botometer.

28. Note that the ASP's numbers include deleted accounts.

The potential impact of these bots on content analysis is watered down by the pre-processing methodology used to train topic models. The removal of non-English tweets and duplicate tweets, for instance, greatly reduces the impact of the bots described in Section 6.3. Even if we were to assume that Botometer's results were fully accurate, the accounts that had a high CAP score[29] tended to contribute very little to discussions,[30] making their impact on user content that will be analyzed further in Sections 9 and 10 minimal. Reader should still keep in mind that there is still uncertainty as to what the actual reach of bots is.

---

29. Universal or English score of ≥ 0.95.

30. Generally accounts with such high CAP scores only ever posted one tweet.

7 User Data

7.1 User Tweets

A total of 1 185 801 user tweet samples were collected with 1 120 015 of those tweets being created in 2022.[1] The accounts collected overwhelmingly use mobile devices to tweet with the official Android (49%) and iPhone (20.6%) mobile apps accounting for almost 70% of all tweets. This does not include other mobile apps such as the iPad application or Tweetdeck. Around a quarter of all Tweets were authored using the official Twitter Web App (27.3%). Out of all tweets, the 638 052 tweets which are classified by Twitter as being written in English are used for content analysis in Chapter 9 and to generate topic models.

Figure 18 illustrates the user tweets and frequency by date along with the dates of Russian state-affiliated tweets that were used to collect user data. The first visible effect is that when new tweets from Russian government accounts are added into the collection, there is a visible uptick in user tweets. This is expected behavior but there are outliers and nuances that need to be accounted for which will cause certain dates to be overrepresented and underrepresented respectively. For example, August 29th has an uptick in discussions despite the fact that no Russian government tweets were scanned right after that date. That anomaly is caused due to a spike in discussions regarding the Tigray war as well as Russian claims of Ukrainians shelling the Zaporizhzhia nuclear power plant.[2]

Since user tweets are collected from an account only once, as the list of collected user accounts gets larger, there is a higher chance of encountering an account that had already liked tweets from Russian state-affiliated accounts in the past and thus would not have their user information collected again. While it was not unexpected to

---

1. The main causes for tweets from before 2022 are high variance in tweet frequency depending on the user as well as some retweets of tweets originally published prior to 2022.

2. These topic classifications were made by querying generated topic models. See Section 8.1.1 for more information on preprocessing and model training.
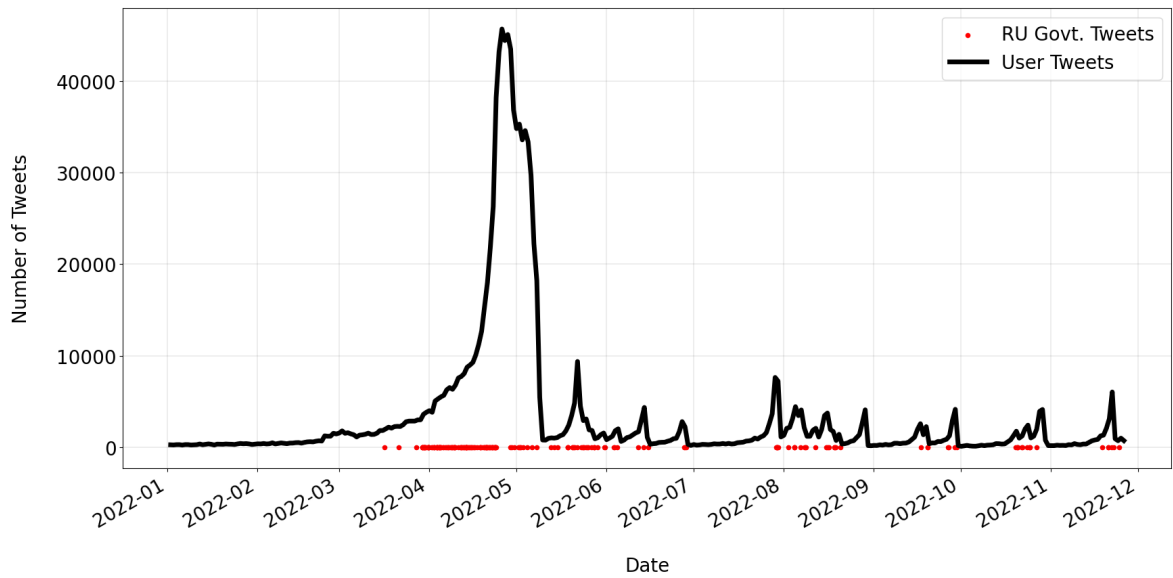
Figure 18: Distribution of of user tweets collected in the dataset with tweets from Russian government accounts used to collect user data. Range is limited from 1.1.2022 to 26.11.2022.

eventually encounter some accounts more frequently than others, what was unexpected is that the quantity of accounts was overestimated quite severely. Already by late May duplicate accounts had started slowing the rate of new user tweets being added to the dataset and in one instance in October all but three of the sample of fifty accounts had been scanned at some point. Possible contributors to this are the visibility limits that Twitter had in place on Russian state-affiliated accounts as well as the fact that while many may be sympathetic to Russia's cause to some extent, that does not automatically mean that they are willing to engage or express their support to the Russian state itself or its leadership.
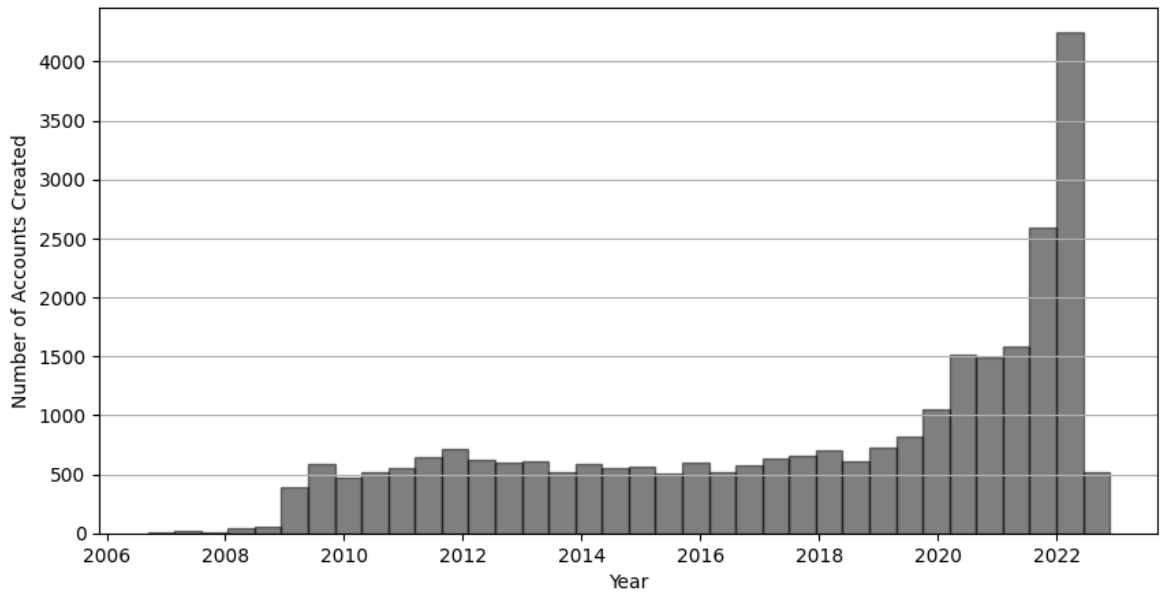
Figure 19: Distribution of account creation dates in the dataset
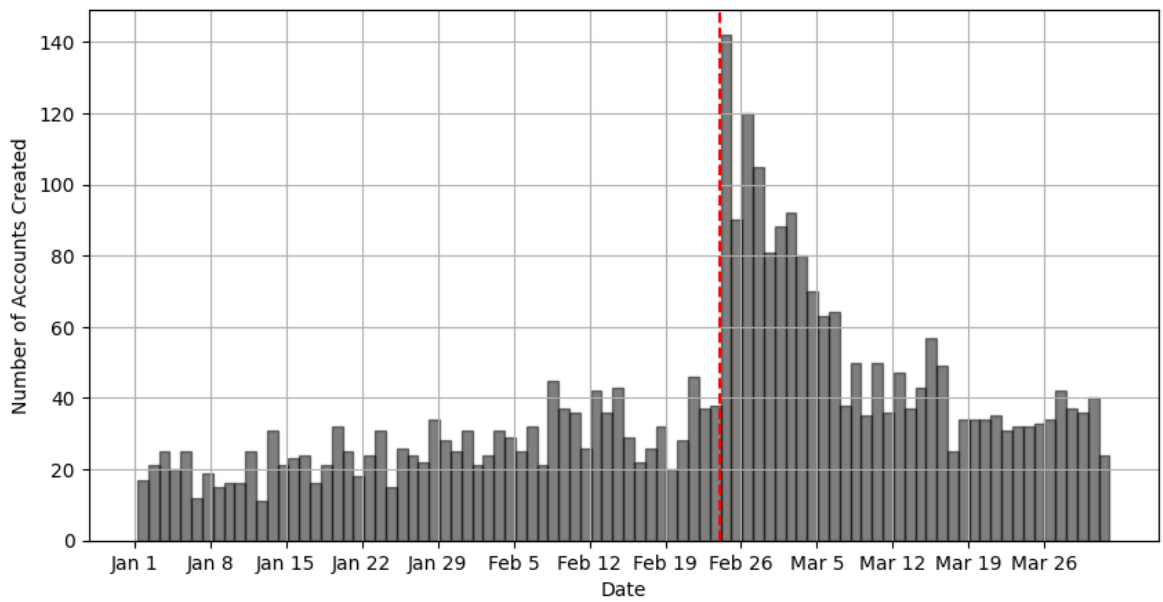
Figure 20: Accounts created from early January to late March, 2022. February 24 marked in red.

7.2 Location Data

This section discusses findings from location data geocoding and the limits of Twitter location data. Table 4 provides a general overview of location data availability as well as the geocoding results summarized.

Description	Count
Accounts in the dataset	27 410
Accounts with self-declared location data (non-null)	13 303
Error-free geocoded location data	12 965
Geocoded location with continent data	12 149

Table 4: Location data availability and geocoding results summary

7.2.1 Location Data Overview

Despite encountering some minor issues with the API, the primary concern with location data is its reliability. More than half of the users in the dataset did not provide a location, and even for those who did, there is no way to verify the accuracy of self-reported location data. Although user-provided location data may not accurately reflect a user's location, it does reflect what the account's owner wants the outside world to perceive. For instance, some users may provide truthful information while others may aim to use location as a means to establish identity, much like the IRA did during the 2016 US presidential election (DiResta et al. 2019, p. 13).

7.2.2 Issues

User location data is usually a subject of interest when discussing susceptibility to Russian propaganda or bots in general. However, there are two key issues with location data:

a. Location data is self-reported making its accuracy inherently questionable.

b. Location data is incomplete and inconsistent, even if we were to assume that
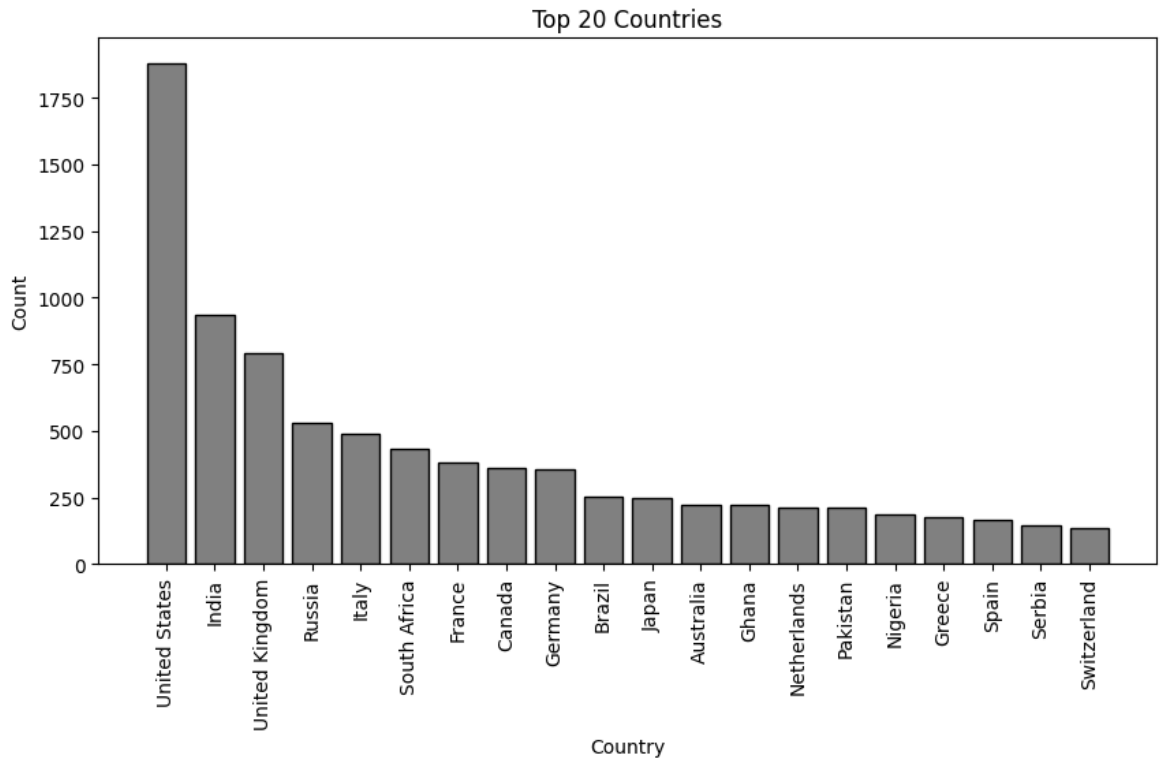
Figure 21: Top twenty self-reported locations
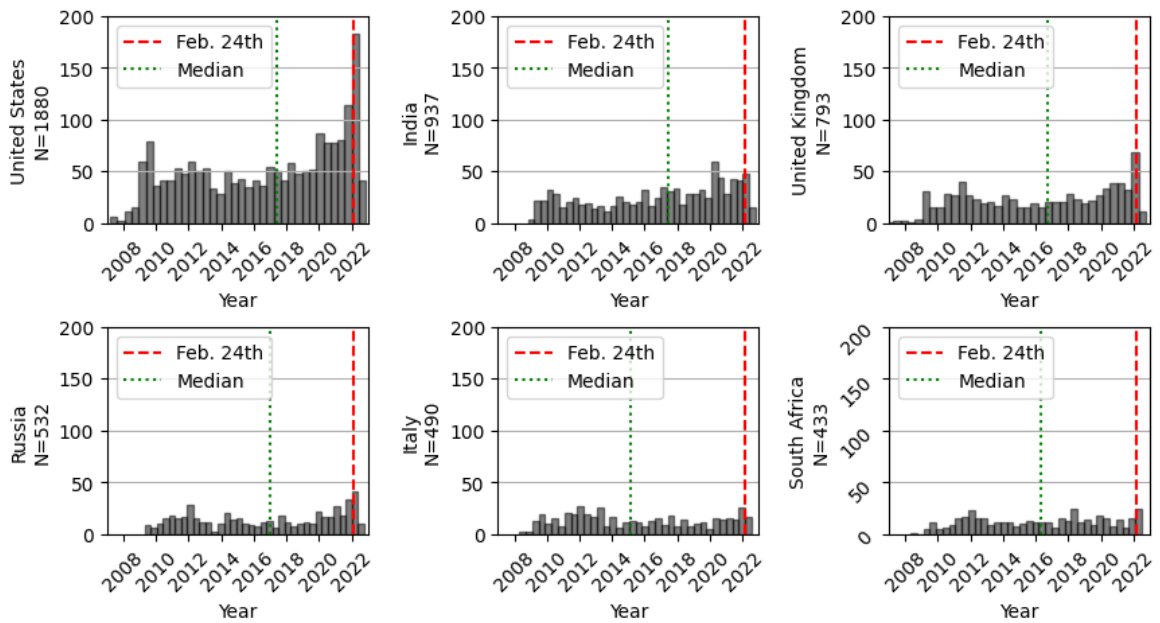
Figure 22: Account creation date distribution and median creation date among top six countries.

Country	User count
United States	1880
India	937
United Kingdom	793
Russia	532
Italy	490
South Africa	433
France	383
Canada	359
Germany	354
Brazil	251
Total in top ten	6 412

Table 5: Top ten self-reported countries in the dataset.

users would not lie. It requires geocoding in order to be formatted in a way that can be analyzed from a statistical perspective.

The Positionstack API was used for geocoding. Tables 4, 5, and 6 provide a summary of collected and geocoded location data.

From 13 303 requests, 338 queries returned errors. The vast majority of these were validation errors. According to the error message, queries must be at least three characters. Since API requests were only sent for accounts with a non-null "location" value, it means that these 294 accounts have provided a location that is one or two characters long. While this does include emojis that would not provide any accurate information (e.g. the globe emoji), it also includes country codes such as "UK", US state codes such as "CA" and Kanji characters.

Continent	Total users
Europe	4 570
North America	2 549
Asia	2 470
Africa	1 704
South America	539
Oceania	289
Seven Seas	16
Antarctica	12
Total	12 149

Table 6: Self-reported location data grouped by continent.

8 Tweet Data

This chapter discusses data relating to Tweets. It will also use data from known IRA Twitter accounts to highlight differences or similarities when such data is available and applicable.

8.1 Topic Modeling

Social media content is typically unstructured and highly heterogeneous. In order to gain a better understanding of the tweets in the dataset, topic modeling was used to create models that in turn can be used to explore, visualize, and filter tweets.

The first step was to pick a technique for topic modeling. In order to pick a topic modeling technique best suited for this use case, "A Topic Modeling Comparison Between LDA, NMF, Top2Vec, and BERTopic to Demystify Twitter Posts" by Egger and Yu 2022 was used as a reference. As such, the two most suitable approaches were Top2Vec (Angelov 2020) and BERTopic (Grootendorst 2022), particularly because they do not require a predefined number of topics and support embeddings.

Both BERTopic and Top2vec were used to train test models with various parameters and pre-processing techniques to ascertain which one was best suited for the current use case. In general, Top2vec was more performant, even with the `deep-learn` parameter and provided in-built tools that allowed easy retrieval of associated tweets and topics for a given keyword, making it the preferred approach for this use case. On the other hand BERTopic had a lot of useful features not available in Top2vec. Some of these features included useful visualization tools which for the purpose of this thesis were rewritten for Top2vec and tailored for this dataset and use case.

Once Top2Vec was selected as the preferred approach, the next step was preprocessing. Two models were trained with slightly different preprocessing inputs for slightly different use cases. These will be referred to as M_1 and M_2.

8.1.1 Preprocessing and Training

The following subsection highlights the core preprocessing techniques that were used to train both models as well as the parameters that were used to train the Top2vec models.

1. **Remove non-English tweets:** After some experimentation, non-English tweets were removed. This is due to the fact that despite multilingual options existing for both Top2vec as well as BERTopic, trained models would simply group together tweets of smaller languages into one topic.[1] Most non-English tweets are so heavily underrepresented in this dataset that topic modeling does not yield interesting topics, unless we want all tweets of a specific language into one topic.

   This applies to both models M_1 and M_2.

2. **Remove unwanted characters added by the API:** While the Twitter API will provide additional metadata as to whether or not a tweet is retweeted, it also adds characters into the `text` field itself. A retweeted tweet will be presented as "RT @[author] [text]". This step removes the "RT" portion since it is generated by Twitter.

3. **Remove hyperlinks:** Hyperlinks do not provide additional insights for the stated use cases but can introduce noise and are therefore removed.

   This applies to both models M_1 and M_2.

4. **Remove mentions:** This is the only difference in preprocessing between the two models, but it produces significantly different results that are useful in slightly different applications. In the context of Twitter, a mention is a reference to another Twitter user and its syntax takes the form of "@[user]". Quoting, replying, and retweeting all add a mention to the `text` field[2] of a tweet. Since topic modeling produces a model that illustrates the similarity between word vectors,

---

1. For example, all Finnish tweets would be one topic, regardless of the context.
2. See Table 2 for a full list of fields returned by the Twitter API.

keeping mentions provides a means to keep track of which popular Twitter accounts interact with each other and what topics they usually tweet about. That is why mentions are stored in M_1 but not in M_2. In short, the purpose of M_2 is primarily to illustrate semantic relations between vectors better and is used for visualizations and a more general overview of the way language is used while M_1 is useful for identifying groups of like-minded voices.

The removal of mentions applies exclusively to model M_2.

5. **Remove duplicates:** The next major pre-processing step was the removal of duplicate values, which primarily affects retweets. The rule of thumb in this paper has been to keep duplicate values such as retweets as they can be indicative of spread and reach. In this context, however, the primary area of interest is the semantic similarity between tweets and the words that comprise the tweets. Keeping duplicates in this context could allow a handful of popular retweets to introduce significant biases. A more nuanced approach to duplicate removal would be to simply remove duplicate retweets rather than all duplicate tweets. However, in this particular dataset, this broader approach affects almost exclusively retweets and extremely short tweets, which are unlikely to provide any useful insights.

This applies to both models M_1 and M_2.

6. **Remove empty strings:** Since both models remove links (including media) and M_2 removes mentions, there is a chance that a tweet ends up becoming an empty string.

This applies to both models M_1 and M_2.

The preprocessing pipeline does not exclude quote tweets, which may contain duplicate content from the original tweet. Quote tweets are retained because they can provide additional context and insights into how the quoted tweets are perceived. The percentage of quote tweets in the dataset is relatively low, as shown in Table 7.

After preprocessing the tweets to account for Twitter-specific issues, the tweets were passed to Top2Vec for further preprocessing before training the model. This included removing special characters and setting words to lowercase. The Top2Vec model was trained using the `deep-learn` parameter and excluding n-gram support. A few models were generated to test the effect of enabling n-gram support on the results. While enabling n-grams allowed the models to identify individuals better,[3] it also introduced a lot of gibberish and common phrases, likely due to the unstructured nature of user-generated text.

Topic models are used in Chapters 9 and 10 to help filter and discover topics that can be studied further.

8.2 Links and Outbound Traffic

Twitter response data was used to analyze external traffic, to gain a better understanding about what content is being shared on external platforms. For this section, the top twenty-five outbound domains and subdomains are picked and grouped by service.[4]

The first notable observation is that around 92% of traffic (N=274 497) is within Twitter itself. These links can reference other tweets or multimedia. Due to the fact that the API will return specific twitter support pages for "witheld" or "sensitive" content, we can also make some floor estimations. Firstly, around 1.8% (N=5037) of tweets contained "withheld" material. This is the error that the API will return when trying to access a tweet that is published by sanctioned Russian outlets such as *Russia Today* or *Sputnik* from within the European union. We can also use another error returned by the API to spot "sensitive" material. Around 0.3% (N=824) of tweets include multimedia deemed sensitive.[5] While this may include content such as nudity, manually sampling tweets where the API returned this message shows that within

---

3. For example, "George Soros" instead of simply "Soros"

4. For example, `youtube.com`, `m.youtube.com` and `youtu.be` are all grouped as one service.

5. This appears to be a label only applied to content where "sensitive" material is directly embedded in the tweet. External sources with "sensitive" content do not appear to be affected by this label. Not all violent content was properly marked as sensitive.

this context the tweets overwhelmingly contain violent footage or imagery relating to Russia's invasion. These 824 tweets should be considered as a conservative floor value for violent content shared by these accounts since not all violent content on Twitter was labeled correctly as 'sensitive'.

To isolate the most popular external websites and services referenced within the tweet samples, we can exclude all URLs linking to `twitter.com`. Figure 24 presents the top outbound traffic.

8.2.1 YouTube

The largest third-party service is YouTube which has a share of approximately 52% of outbound traffic. Out of the top fifteen[6] most shared videos, thirteen[7] of them were related to Russia's invasion of Ukraine. Five out of the top fifteen videos have now been removed, though it is unclear whether these videos were removed by YouTube or the original creators.

The most referenced video is a now deleted video by "independent journalist" and frequent *Russia Today* contributor Eva Bartlett who went to "debunk" the existence of mass graves in Mariupol. The video received at least 93 000 views by April 2023.[8] suggesting significant reach. The most viewed videos, however, were two longer videos which effectively blamed the United states for Russia's actions. One of these was a video uploaded by the Schiller institute with over 985 000 views.[9] In the video, former Col. Richard Black claims that the United States is "leading the world to nuclear war" and questioned the involvement of Russians in the Bucha massacre.[10]

The most watched video referenced, however, was a lecture by John Mearsheimer titled

---

6. Top fifteen refers to the number of times it was shared in the tweet samples, not the most watched videos that appear in the dataset.

7. The outliers included a short critique of *Roe v. Wade* and a video showcasing the Indian military. Neither of these videos were widely popular.

8. `https://web.archive.org/web/20230411222834/https://www.youtube.com/watch?v=CeEn Ccn1S3I`, Archived copy retrieved 25.1.2024

9. As of 25.1.2024

10. `https://youtu.be/dcp0TYx_eUI?t=3450`, Timestamp: 57:31 (Retrieved 25.1.2024)

Why is Ukraine the West's Fault? and was originally uploaded in 2015. As of early 2024, the video has over 29,6 million views. For reference, an archived copy from July 2021 has the same video at less than 76 000 views.[11]

8.2.2 Telegram

Telegram has been an important platform which has been used by Russian actors to share updates, shape the information space and raise funds at the unit level (DFR-Lab June 2024, pp. 40-41, 45). The most referenced links unsurprisingly include pro-Russian telegram channels, including the Russian MoD's English channel. Some channels are now unavailable but the remaining noteworthy accounts include former U.N weapons inspector Scott Ritter's Telegram channel as well as Russian propagandist and TV host Vladimir Solovyov.

8.2.3 News Publications

The following publications appear on the top twenty-five outbound URLs: *Zero Hedge*, *RIA Novosti*, *Reuters*, *Russia Today*, and *The Guardian.*

ZeroHedge is a far-right news aggregator with libertarian leanings. While ZeroHedge generally focuses more on economics, most of the coverage that was shared was related to Russia's invasion of Ukraine in some form. The coverage in question predominantly illustrated the situation in Ukraine as being helpless and ultimately the West's fault. Various fringe publications can be found throughout the dataset, however, ZeroHedge was the only one which was referenced frequently enough to make it to the top twenty-five outbound links.

RIA Novosti and *Russia Today*, state-owned Russian news outlets, were also noticeably referenced. RIA Novosti primarily targets the domestic Russian audience, while *Russia Today* focuses on foreign audiences. Both outlets consistently presented narratives that sought to undermine Ukraine and its Western allies or portray Russia as a victim of

---

11. `https://web.archive.org/web/20210721020407/https://www.youtube.com/watch?v=JrMi SQAGOS4`, Archived copy retrieved 25.1.2024

Topic 1470

Figure 23: Perceptions on 'media' relating to Ukraine in M_2. There are several topics in M_2 and M_1 relating to discussions around the trustworthiness, or lack thereof, of mainstream media outlets. Some have a more identifiable political leaning, particularly when it comes to coverage regarding former President Donald Trump or President Biden's son.

external interference.

The only two mainstream news sources to appear among the top twenty-five outbound URLs were *Reuters* and *The Guardian*. However, even these sources were selectively utilized to support the pro-Russian narrative. The articles referenced were primarily shared for their factual reporting of positive developments for Russia, such as the Ruble's two-year high in April 2022.[12] This suggests that, despite general grievances regarding the "mainstream media",[13] at least some accounts are willing to cite such outlets when they align with their preconceived notions.[14]

These results vary quite significantly from extracted context annotations[15] where the top ten most common brands included the following outlets: *The BBC, Reuters, The*

---

12. https://www.reuters.com/business/russian-rouble-firms-past-74-vs-dollar-stock s-slip-near-2-month-low-2022-04-25/ (Retrieved 25.1.2024)

13. For example, see Figure 24.

14. Zeng and Schäfer identified several legacy news outlets in their study of COVID-19 conspiracy theories on "dark platforms", where sources with outlets with varying levels of reliability were referenced. However, it remains unclear whether these legacy media outlets served primarily as a convenient source with established credibility, as seen here, or if some users relied on them as their main source of information. See Zeng and Schäfer 2021, pp. 1336-1337.

15. See Figure 29.

New York Times, Sky News, and *ZeroHedge.* There are two main reasons for this. First, many of these context annotations are due to discussions regarding or replies to these publications. For instance replies to accounts owned by *The New York Times*,[16] elevated references to the publication in context annotations despite the fact that the publication itself was not shared by the users in this dataset.

The second contributor to higher references to mainstream media outlets in the tweet metadata versus outbound links appears to be due to how Kremlin-controlled communication channels utilize the tag feature,[17] meaning that any tweet replying to an embassy account would inherit references to said news outlets. The practice of tagging media outlets does seem targeted albeit inconsistent, depending on who is running each specific embassy account. For example, the Russian embassy in South Africa account may tag known sympathizers[18] regardless of credibility or reach whereas the Russian embassy UK account will actively tag mainstream British news outlets.[19]

It is unclear whether the goal of this behavior is to try to manipulate the algorithm or attract the attention of mainstream media outlets. If the primary goal is the latter, then these embassy accounts are effectively seeking recognition from media outlets which pro-Kremlin supporters do not claim to respect nor read.[20]

---

16. For example, tweets replying to `@nytimes` and `@nytimesworld` are classified under the umbrella of *The New York Times.*

17. Mainstream media accounts were frequently tagged much like known pro-Kremlin accounts. For example, see Figure 3.

18. For example, Appendix A, tweet Id: `1559451257953189889` or `https://twitter.com/Embass yofRussia/status/1559451257953189889` (Retrieved 28.1.2024)

19. For example, Appendix A, tweet Id: `1553059955216977920` or `https://twitter.com/Russia nEmbassy/status/1553059955216977920` (Retrieved 28.1.2024)

20. The only notable exception appears to be when such coverage supports Russian narratives or or portray Russia in a favorable light.
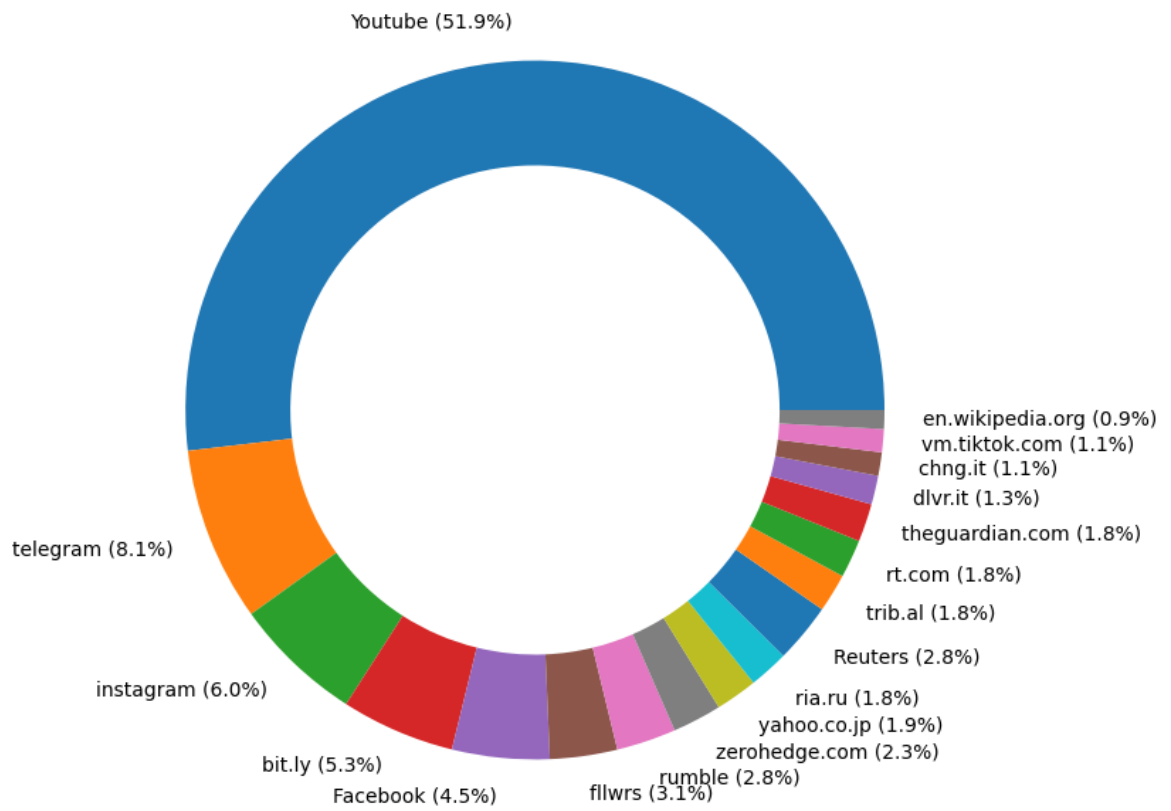
Figure 24: Top outbound traffic to external destinations. Capitalized labels are comprised of several domains or subdomains that lead to the same service. For instance, `youtube.com` and `youtu.be` are grouped as the same service.

8.3 Trends

This section compares data to the approximately three million tweets from IRA Twitter accounts between 2012-2018 which were made public by *FiveThirtyEight*.[21] The IRA dataset is primarily utilized here to illustrate how the IRA embraced Twitter trends for amplification and the high number of hashtags per tweets. There were a total of 1 759 117 hashtags used in 2 946 206 tweets, totalling approximately 0.6 hashtags per tweet on average. In comparison that number is approximately 0.2 hashtags per tweet from the data collected during 2022.[22] Figures 25 and 26 compare the top hashtags between the datasets. Table 7 breaks down the types of tweets and how frequently hashtags occurred in each tweet type.

Special characters, with the exception of '#' were removed from each word during pre-processing. This mostly affects the results of the 2022 dataset where a significant portion of hashtags were actually from official Russian channel retweets where quotes would use hashtags. For instance, a statement from the Russian foreign ministry quoting foreign minister Lavrov might start with "#Lavrov:" which would be classified as a different hashtag from "#Lavrov".

The stark difference in the ratio between the datasets is most likely due to the fact that the IRA dataset is tailored to exclusively include accounts involved in information operations, while the 2022 dataset also includes organic voices supporting Russia. The top twenty-five hashtags for both datasets suggest that IRA accounts mainly used broad hashtags like "#news" or "#sports" in an attempt to exploit trend algorithms. In contrast, the 2022 dataset had a narrower range of hashtags, mostly focused on the Russian invasion of Ukraine. This does not exclude the hashtags from being used in information operations, although the pattern is a stark contrast to the IRA dataset.

Table 7 presents a comparison in hashtag usage between the IRA dataset and data collected in 2022, however the distinction between original tweets and replies was not

---

21. `https://github.com/fivethirtyeight/russian-troll-tweets/` (Retrieved 8.5.2023)
22. Total tweets collected 1 185 801 with a total of 258 100 hashtags in the 2022 dataset.
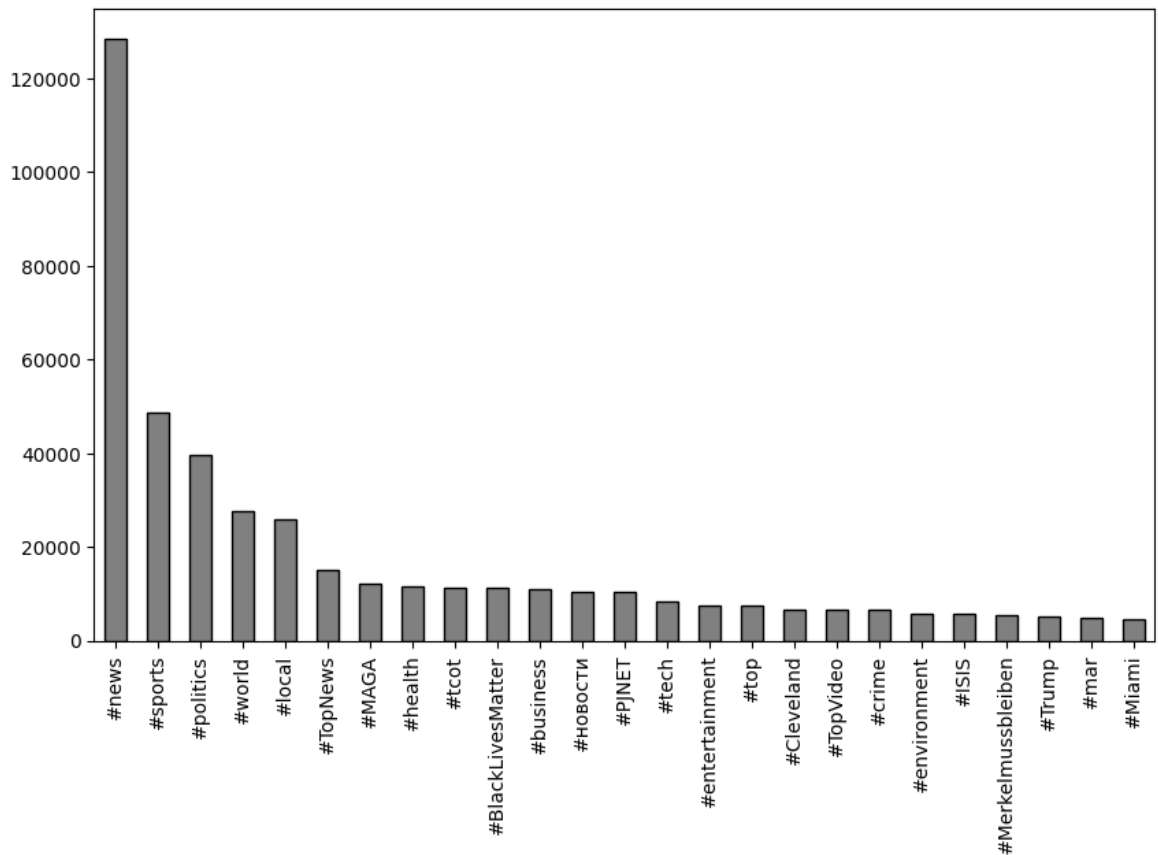
Figure 25: Top twenty-five hashtags that appear in the IRA dataset by total occurrences. Notably the top hashtags are varied in topic but generally broad in scope. This is likely an due to the fact that hashtags were used as an attempt to maximize reach.

available for IRA tweets.[23]

	Dataset 1 (2022)	Dataset 2 (IRA accounts)
Total		
hashtags	258 100	1 759 117
tweets	1 185 801	2 946 206
Hashtags per tweet	0.218	0.597
Retweets		
hashtags	152 314	756 244
tweets	591 232	1257 548
Hashtags per tweet	0.258	0.601
Quoted tweets		
hashtags	22 175	20 284
tweets	54 027	40 034
Hashtags per tweet	0.410	0.506
Original content & replies		
hashtags	83 611	982 589
tweets	540 542	1 648 624
Hashtags per tweet	0.155	0.596

Table 7: Hashtags per tweet type for two datasets. Inauthentic accounts operated by the Internet Research Agency (IRA), exhibited a pronounced tendency to exploit all available tools to augment their reach resulting in a prevalent use of hashtags. This behavior is very similar to how Doppelganger bots tried to maximize their reach. For example, see Figure 12.

---

23. Total values for tweets appear to differ slightly from the original *FiveThirtyEight* article. This appears to be due to an update to the public version of the data which removed duplicate rows and accounts which had other inconsistencies. See `https://github.com/fivethirtyeight/russian-t roll-tweets/pull/28`
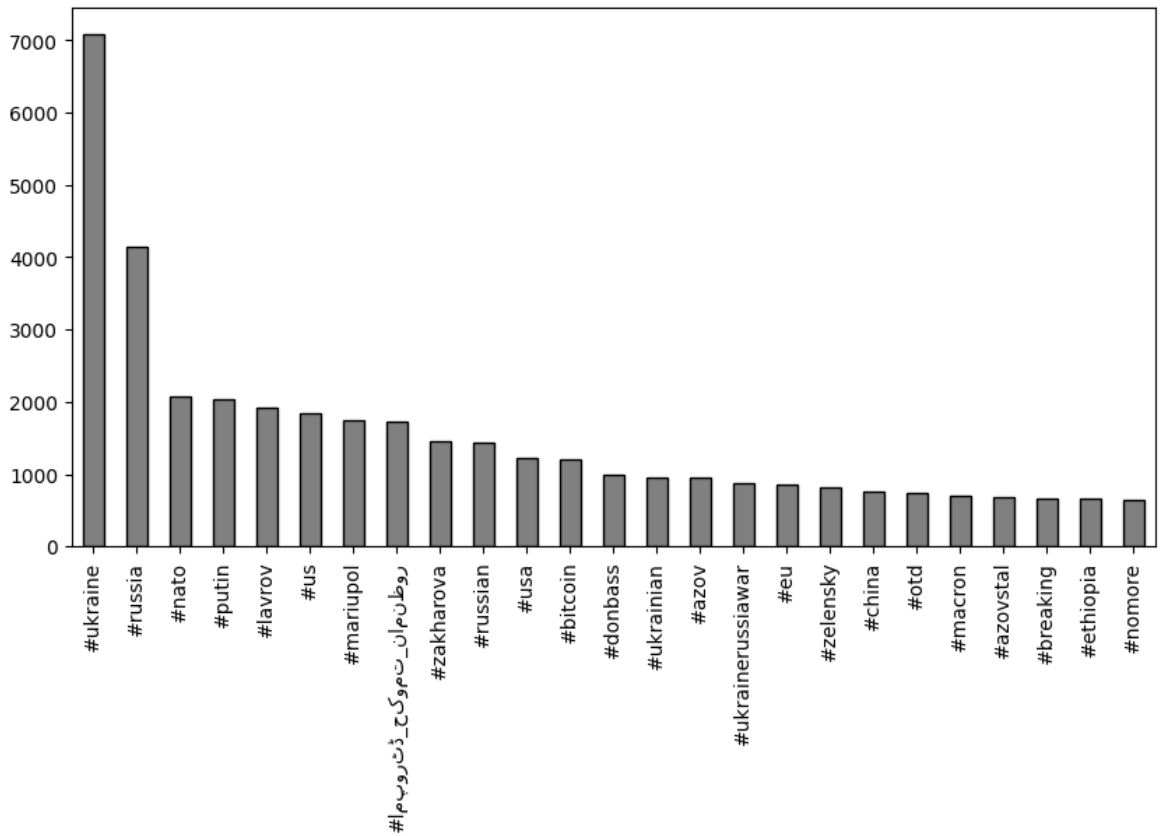
Figure 26: Top twenty-five hashtags that appear in the dataset collected during 2022. The "Zakharova", "Lavrov", and "Putin" hashtags appear to be disproportionately the result from the quotes and retweets of official Russian government content.

8.4 Annotation Data

Each tweet returned by the Twitter API has additional data that identifies entities or provides additional context.[24] This additional data can be used in conjunction with other tools, such as topic models, to understand the discussions and themes that appear throughout the dataset.

Annotation data, however, does not always illustrate the full picture and may require other data points to fully understand why certain themes or actors appear frequently. An example of this is when news outlets appeared to be mentioned or referenced due to social media account engagements far more frequently than they were actually shared.[25]

8.4.1 People

Figure 28 illustrates the top twenty-five most referenced people in the dataset. Using annotations in this context provides a more complete image of the individuals who are discussed about or with as it is more accurate regarding individuals who are spoken about but may not be active on Twitter.

According to annotation data, the four most referenced people in user discussions are Elon Musk, Vladimir Putin, Joe Biden and Volodymyr Zelensky with Musk being the most notable outlier. Further inspection of the distribution of tweets suggests that discussions about Musk are dated almost exactly around Musk's announcement to acquire Twitter.[26] The number of references or replies to Elon Musk appear to spike right around April 24th, with a smaller spike on October 28th[27] These dates strongly suggest that the large number of references to Musk are primarily driven

---

24. For more information, see the official documentation `https://developer.twitter.com/en/docs/twitter-api/annotations/overview` (Retrieved 30.1.2024)

25. See brand entity references for legacy media outlets in Figure 29 versus actual outbound traffic in Figure 24. For more on outbound traffic to legacy news sites, see Section 8.2.3.

26. Section 8.2 does not cover in detail traffic within Twitter itself, however, the most shared individual tweet identified is Musk announcing his plans to "defeating spam bots" and making the algorithm "open source" See `https://twitter.com/elonmusk/status/1518677066325053441` (Retrieved 30.1.2024)

27. This is the day the acquisition deal was finally closed after legal disputes.

by the acquisition of Twitter and not other factors such as Starlink terminals being supplied to the Ukrainian army.

Volodymyr Zelensky, Joe Biden and Vladimir Putin have somewhat similar occurrence patterns where a large number of Tweets are available during April and May[28] with various smaller spikes in discussions throughout the year. Interestingly, Joe Biden is mentioned more frequently than the Ukrainian president Volodymyr Zelensky. It is likely that domestic U.S. politics may partially explain this. As will be discussed in Section 9.1.1, tweets and sentiments regarding the Ukrainian president seem to be unwilling to accept that Zelensky or the Ukrainian nation as a whole have the agency to make their own decisions without control or influence from other nations or their leaders.

The next outlying figure is Julian Assange. For years, Assange has been portrayed as being persecuted for leaking the actions of the United States government. The Russian government has demonstrated its support for Assange through official communication channels,[29] as well as amplified and even provided a platform for Assange's message through outlets such as *Russia Today* (United States. Office of the Director of National Intelligence 2017, p. 3).

Discussions around Assange were most popular between April 20th and May 3rd.[30] Discussions on April 20th were due to it being the date when a UK court issued an extradition order.[31] The Russian foreign ministry issued a statement on its official

---

28. This is primarily driven by tweet distributions as described in Section 7.1 and illustrated by Figure 18 which in turn was the result of the events that took place during those months

29. Example statement published by the Russian Minsitry of Defense: `https://www.mid.ru/en/foreign_policy/news/1522143/` (Retrieved 1.2.2024)

30. There are smaller spikes throughout the year, suggesting that Assange is a frequent topic of discussion despite the large concentration of discussions between the two previously mentioned weeks.

31. Example coverage: `https://www.theguardian.com/media/2022/apr/20/uk-court-approves-extradition-of-julian-assange-to-us` (Retrieved 1.2.2024)

Twitter account criticizing the verdict.[32] While the notion that the Russian state cares or respects the free press does not stand the slightest of scrutiny, Assange remains a strong example of how the Russian state actively seeks to weaponize what are widely considered to be Western values against the West itself.

The final group of individuals from Figure 28 who merit particular attention includes: Jack Posobiec, George Galloway, and Michael Tracey. These individuals are noteworthy due to their roles as political commentators who espouse viewpoints often considered fringe within the conventional left-right political spectrum. These individuals are of particular interest due to their statements aligning with the Russian state's broader agenda. While they frequently express[33] views critical of the Ukrainian state and its leadership, they will often refrain from a direct endorsement of the Russian government. Similar asymmetrical discussions are also observed by the users that are of primary interest in this thesis, particularly in the context of how they perceive leadership figures.[34]

8.4.2 Brands

Figure 29 illustrates the most discussed brands, as identified by Twitter's NER annotations. By far the most referenced brand is Twitter, likely in part due to Musk's acquisition. This should not, however, be interpreted as the sole reason for such a high reference count. For instance, many tweets express frustration with how Twitter has handled limiting pro-Russia voices on the platform. Some of these frustrations were even shared by accounts controlled by the Russian government.[35]

---

32. This tweet can be found in the dataset through user retweets and quotes, however, since it was not directly related to Russia's invasion of Ukraine, it was not used to collect public account information. See `https://twitter.com/mfa_russia/status/1516820258773995537` (Retrieved 1.2.2024)

33. Based on samples of their tweets referenced in the dataset as well as the most recent two dozen tweets as of February 2024.

34. See Figures 30, 31 and Section 9.1 for more information.

35. See Appendix A, tweet Id: 1511423761744019456 or `https://twitter.com/mfa_russia/status/1511423761744019456`

Topic 603

Figure 27: Perceptions on 'pfizer' in M_2 with the topic most similar to 'pfizer'. Notably this topic also includes tweets about the Moderna vaccine which is not identified as a popular brand by Twitter's own NER data. The tweets in this topic are predominantly tweets that are presented as reporting with a focus on adverse effects such as blood clots, death or myocarditis.

The next most referenced brand is the United Nations which predominantly includes discussions regarding Russia's invasion of Ukraine but also other topics such as the Tigray war. The number of references to the United Nations is not particularly surprising given the broader context of its role in conflict resolution, what is interesting is that the number of references are relatively close to the number of references to 'Pfizer'.[36] This dataset does appear to include a particularly high number of discussions regarding the COVID-19 vaccines. Many of these discussions express skepticism or are outright conspiratorial. It is unclear why Pfizer appears to be singled out as opposed to other vaccine manufacturers such as Moderna or Novavax, though generated topic models do appear to group tweets regarding Pfizer and Moderna together.[37]

The rest of the brands that can be seen in Figure 29 are mostly established news outlets, which as discussed in Section 8.2.3, may have a high reference count in the Twitter context annotation data but were not widely referenced in outbound traffic.

---

36. The total references to the 'United Nations' is 4507 versus 4204 references to 'Pfizer'

37. See Figure 27. This discrepancy could be due to a lower overall mention of Moderna vaccines hence it is disproportionately more popular in some generated topic models or perhaps Twitter's own NER struggles to properly identify Moderna as a brand.

Figure 28: Top twenty-five people extracted from context annotations. Notably this includes political figures and pundits from across the political spectrum. See Appendix B for the top fifty individuals and absolute values for reference counts.

Figure 29: Top twenty brands extracted from tweet context annotations. The popularity of discussion around Twitter is likely increased due to Musk's acquisition during 2022.

9 Themes and Actors

This chapter combines both user and tweet data in order to try and extract information about recurring themes and accounts throughout the dataset by using generated topic models, and context annotations in an attempt to spot themes and actors of interest. The overall goal is to break down tweets into smaller clusters that can be manually reviewed to discover themes and patterns for further study.

The general outline for how themes and actors are analyzed in this chapter are as follows:

1. Identify perceptions on leadership. This is done in order to try and understand if there are any asymmetric features. This also serves as an means of validation to ensure that the methodology used for data collection did, in fact, collect pro-Russia accounts.

2. Identify perceptions of well-known events. This may provide another layer of validation that the accounts collected are pro-Russia but may also provide some insight as to how these accounts explain and excuse well-documented atrocities committed by Russian troops. This is primarily done by picking the most popular topics for a specific date and then finding which topic corresponds with discussions of an event of interest.

3. Identify outliers by date or topic. This is done by comparing topic occurrences by date and their similarities to other topics. While the methodology used to collect data will almost always guarantee discussions around specific events, there are some outliers where certain dates are over-represented significantly. Many of these events were widely reported in Western media whereas some of the smaller outliers are events that were discussed almost exclusively within pro-Russia circles. See Figure 18 for some of the outlier dates.

4. Use information gathered in points 1-3 to further refine queries and filter discussions. For example, Figure 30 shows words that are often associated with the Ukrainian president Volodymyr Zelensky. Some keywords in that figure are highlighted to filter discussions further.

9.1 Perceptions on Leadership

One of the main areas of interest is how leaders relating to the conflict are perceived. One of the ways this was analyzed was by querying leaders as keywords and comparing the most similar words to each corresponding leader. Figures 30, 31, and 32 illustrate the keyword similarities for "Zelensky"[1], "Putin" and "Biden" respectively. These figures show the top fifty keywords with stop words being subtracted using SpaCy's default stopwords[2], meaning the resulting keyword number may vary. These figures also have some keywords highlighted which deemed of interest and thus are used to filter tweets for further analysis.

9.1.1 Volodymyr Zelensky

The keywords associated with Ukrainian President Volodymyr Zelensky are primarily negative.[3] They suggest that Zelensky is primarily associated with "Nazis," that he is leading a "regime," and that he is a "puppet" of the West. The negative connotations regarding Zelensky are not particularly surprising, but there are some indicators that much of the language seen here is adapted from official Russian propaganda talking points.

In particular, the phrase "Kiev regime" has been used by official Russian state channels throughout the war to insinuate that the current Ukrainian government is illegitimate and therefore the war is justified. It is likely that some of the tweets that the model was trained on were retweets from official Russian Twitter accounts, however, it also appears that the audience has adopted these phrases to some extent.

As to what popular perceptions regarding what Zelensky[4] "wants", these views gener-

---

1. "Zelensky" is the most common transliteration used by accounts in this dataset and thus is used to query keyword similarities.

2. See `https://github.com/explosion/spaCy/blob/master/spacy/lang/en/stop_words.py` for the list of words that are considered stopwords. (Retrieved: 3.8.2023)

3. See Figure 30 for the keywords most associated with "Zelensky".

4. For queries regarding perceptions of the Ukrainian president, "elensky" is used to filter tweets in the dataset. This includes various transliterations including: Zelensky, Elensky, Zelenskyi, and Zelensky.

ally fall into two broad categories. The first one is that Zelensky is a malicious actor who wants to provoke a wider conflict or to keep the war going, and thus is the main obstruction to peace. The second category would be a portrayal of Zelesnkyy being a beggar of sorts who wants to enrich himself, often suggesting that aid to Ukraine is some sort of money laundering scheme. In this category Zelensky either wants money[5] or that Zelensky wants more weapons to prolong the war. This latter point plays into the broader pro-Kremlin narrative that Zelensky is an obstacle to peace, not Russian leadership which broke the peace at its own initiative.

The view that Zelensky is the obstacle to peace appears to largely coexist with other widely identifiable, and sometimes even contradictory, views. For example, one of these views is that Zelesky is a "puppet" controlled by various powers. On the one hand, Zelensky is nothing but a "comedian" and a "puppet" doing the bidding of his masters with no agency. On the other hand, it is Zelensky and his choices which have deepened the scale, scope and casualties of the conflict. Several powers are attributed as being the "handler" or "master". In some cases Zelensky is working at the behest of the CIA, deep state, US, UK, NATO, neocons, the collective West, and even the World Economic Forum (WEF). Out of these possibilities, overwhelmingly most of these discussions seem to attribute Zelensky as a puppet of the United States. Regardless of who is attributed as being Zelensky's puppet master, there were no observed discussion[6] where anyone was willing to speculate or explain exactly what leverage Zelensky's "master", would have to convince Zelensky and by extension the Ukrainain public to do the bidding of this vaguely defined external actor.

Another observation, which occurs throughout much of the dataset and is not exclusive to perceptions regarding Zelensky, is that Russian spellings for geographical locations are generally used. For instance, "Kiev" is frequently used instead of "Kyiv". Given the broader nature of the dataset and data collection process, it very possible that these users have simply adopted the Russian state's spelling through the adoption of

---

5. These tweets also feed into a recurring Kremlin propaganda talking point that Ukraine is actually laundering money sent by the West.

6. Sample of discussions filtered down to 170 tweets discussing "elensky", "puppet"
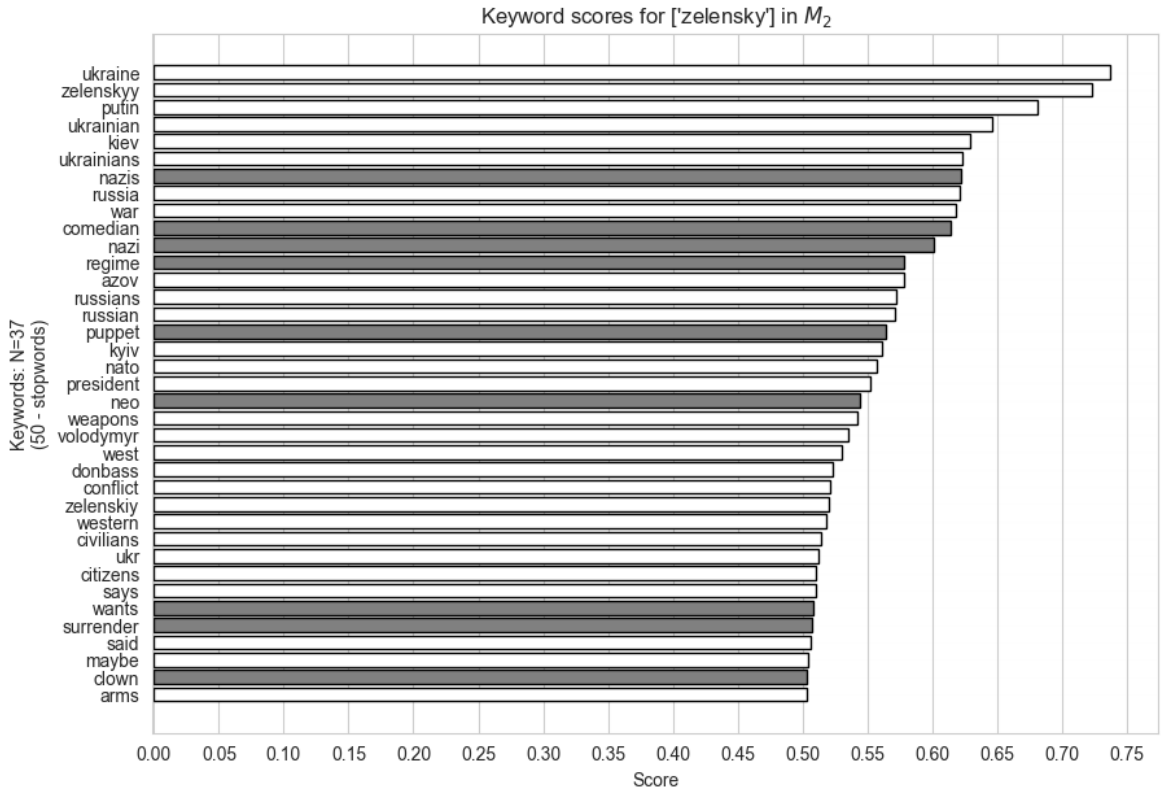
Figure 30: Most similar keywords to 'Zelensky' in M_2. Keywords highlighted were deemed to be of interest and were then selected to filter tweets. The total number of words is $50 - stopwords$

its broader talking points.[7]

9.1.2 Vladimir Putin

In contrast to Zelensky, the top fifty words associated with Putin do not have clear negative or positive connotations. Most words are fairly neutral, such as "phone," suggesting that much of the content is either organic discussion or retweets of Putin's discussions with other world leaders. Putin's chart also has fewer words after stopwords were removed, suggesting that there are more generic stopwords associated with the word "Putin." The keywords "wants" and "reason" are highlighted for further review,

---

7. This also extends to phrasings of events such as the Odesa clashes where the Russian state's preferred phrasing "Odessa massacre" was widely seen after Russian state accounts tweeted about the anniversary. Discussed further in Section 10.2.

as they may suggest that there are tweets where users speculate as to what Putin's political goals are.

These tweets can generally be divided into two broader categories. Firstly there are the tweets that discuss what third-parties want from or to do to Putin. Some examples include Western powers or actors wanting to "weaken" or "break up" Russia. These discussions support one of the more consistent Kremlin narratives that the Russian state is in fact the victim of a foreign conspiracy and that its invasion is a war of necessity, not a war of choice. Discussions in this category are not always consistent but broadly perceive Putin, and by extension the Russian state, as acting in self-defense.

The second broad category of tweets regarding what "Putin" "wants" includes discussions and speculations about the Russian president's perceived goals. While tweets in the first category were already quite varied, there at least was a common denominator of portraying Russia as the victim. In this second category there is very little that can be used to create any sort of generalization other than they appear to make an attempt in explaining Putin's wider strategic objectives. These discussions range from Putin wanting a buffer zone, peace, ensuring the safety of the Russian speaking population, securing better trade conditions, respect, hydrocarbons, stopping NATO's expansion, or Ukraine to legally adopt a position of neutrality. This is also a subset of discussion where there is a limited number of accounts that are not necessarily strongly supportive of Russia or are outright critical Putin's goals and claim that he wants to recreate the Soviet Union or perpetrate genocide.

The fact that there is no consistent belief for what exactly Putin's strategic objectives are is not too much of a surprise. According to reporting by *Novaya Gazeta*, the Russian state shifted much of its talk from "denazification" since it was not something that the domestic audience understood or resonated with.[8] This is also consistent with public polling. In 2023 a joint Chicago Council-Levada Center survey found that the most popular perceived benefit of the invasion among Russians was the "return or addition of territories" with 29% of respondents agreeing, whereas "protection against fascism

---

8. See `https://novayagazeta.eu/articles/2022/05/04/kremlin-to-give-up-denazification-term-russians-dont-understand-it-news` (Retrieved 8.11.2023)

and Nazism" ranked at fifth with 9%. (Smeltz, Volkov, and Goncharov June 2023).

While it is widely believed that "denazification" included regime change at the start of the invasion, there was no quantifiable means of measuring Russia's progress or strategic goals until late September 2022 after the annexation of the Kherson, Donestsk, Luhansk and Zaporizhzhia oblasts. The annexation which followed Russia's illegal referenda means that now there is a quantifiable metric that can be applied to how the Russian military has progressed in at least controlling the territory that it claims as its own. Prior to the referenda, the ambiguous nature of Russia's strategic goals created an environment where speculation acted as a substitute for clear facts. This is possibly why there are so many different and sometimes competing beliefs as to what Putin wants. Since most of the tweets reviewed are from April 2022 onward, it is possible that these beliefs were more consistent or overall very different in late February or March, 2022.

The types of word associations between Putin and Zelensky are in clear contrast to each other. It appears that much of the dialogue regarding leadership has focused on emphasizing the perceived flaws and failures of Zelensky's leadership, rather than trying to praise the leadership and actions of Putin.
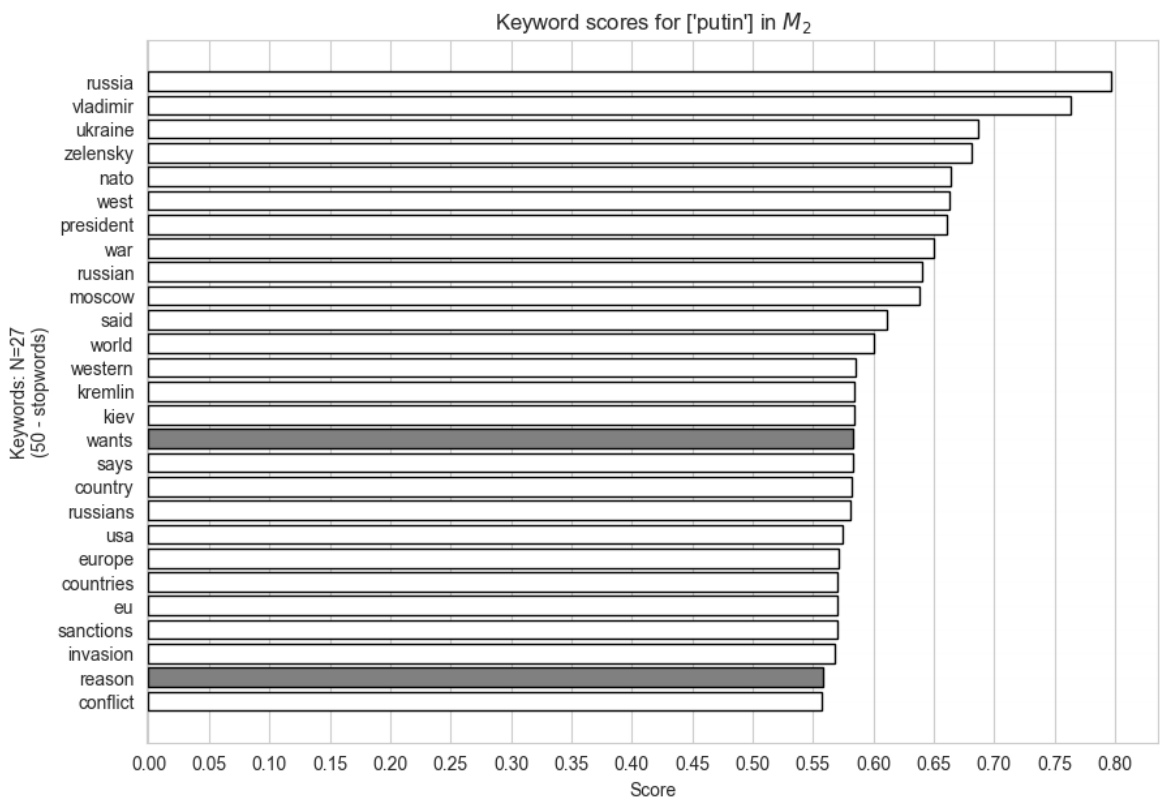
Figure 31: Most similar keywords to 'Putin' in M_2. Keywords highlighted were deemed to be of interest and were then selected to filter tweets. The total number of words is $50 - stopwords$

9.1.3 Joe Biden

Discussions around 'Biden' were far more varied due to a combination of two factors. Firstly, events regarding Hunter Biden are grouped together adding some stories which are not directly linked with Joe Biden, despite them being attempts to link Hunter's alleged wrongdoings with Joe Biden. Secondly a lot of discussions have to do with American domestic politics. Figure 32 illustrates discussions around Biden's legislative agenda with notable keywords such as 'house', 'congress', and 'federal'. The keyword 'bill', however is more ambiguous as it refers to several things. This includes Biden's legislative agenda, the inflation of grocery or utility bills, Bill Clinton and even Bill Gates.[9]

9. Mentions of Bill Gates in the dataset are predominantly due to anti-vaccine content.
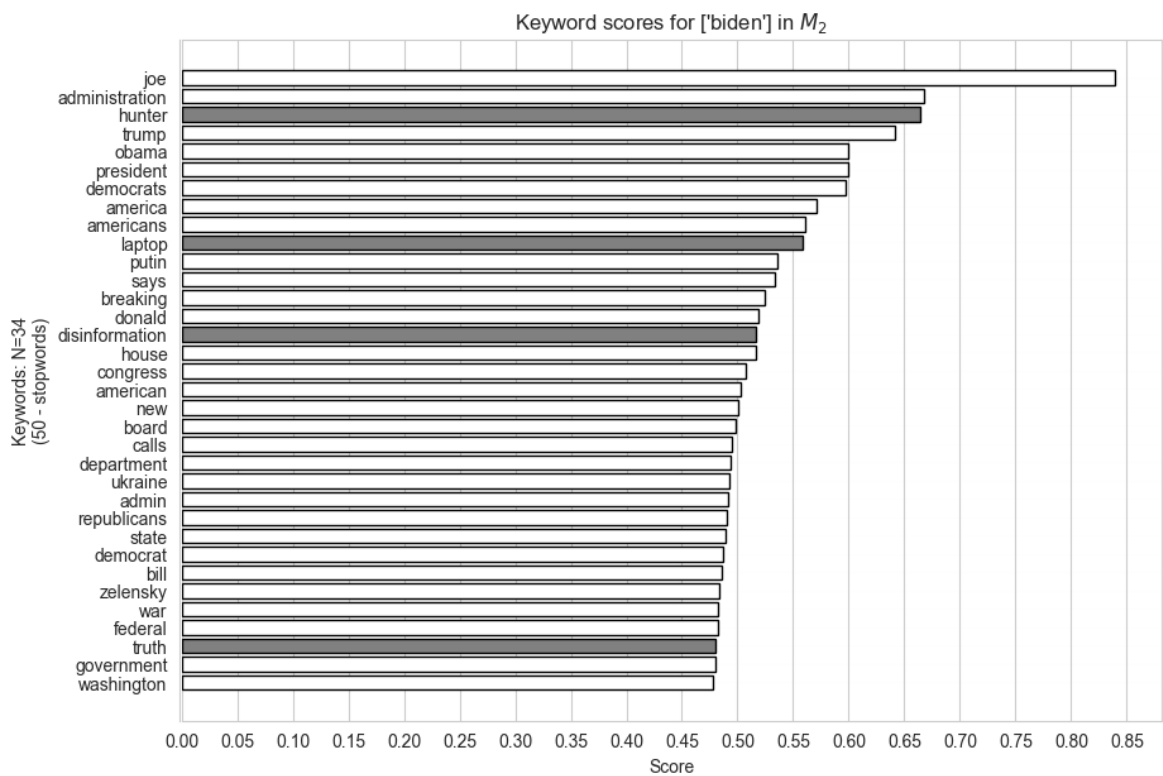
Figure 32: Most similar keywords to 'Biden' in M_2. Keywords highlighted were deemed to be of interest and were then selected to filter tweets. The total number of words is $50 - stopwords$

9.2 Notable Events in the War

This section discusses some key events that occurred during the war. Because information gathering was linked to official Russian communication channels, which in turn was linked to events on the battlefield, data availability is generally greater during the earlier stages of the war when the battlefield was more dynamic. For reference, Figure 18 provides an overview of user tweet distributions.

9.2.1 Atrocity Denial Through Conspiracies

The Bucha massacre is one of the earliest widely reported atrocities committed by Russian forces during the full-scale invasion of Ukraine. The Russian government responded to the events as being "fake" and "provocations".[10] These claims eventually evolved into calling Western media "an accomplice in the massacre in Bucha".[11]

The events that unfolded in Bucha represent a particular area of interest as it represents a good example of how Russia tries to balance its messaging depending on the target audience. For the international audience the message is clear: Russia did not commit these heinous acts. The Ukrainians did this to themselves and the West is at least partially responsible. To the domestic Russian audience the public message had some more nuance. A couple of weeks after the events that took place in Bucha came to light, Vladimir Putin awarded medals to the 64th Motor Rifle Brigade, which took part in the atrocities, for the brigade's "mass heroism and valour".[12]

This begs the question, how do the discussions collected in the dataset perceive the events that unfolded in Bucha during Russian occupation? Discussions around Bucha contain a lot of neutral keywords that do not portray as clear of an image of views as

---

10. For some examples from Russian government Twitter accounts, See Appendix A, Tweet Ids: 1510648066403143683, 1510662169167290371, 1510669717350064134, 1510649349482635265, 1510929909803274240, 1511065556606238722.

11. From a statement by the Ministry of Foreign Affairs Spokeswoman Maria Zakharova. See Appendix A, Tweet Id: 1512159243134242821.

12. Example coverage `https://www.independent.co.uk/news/world/europe/ukraine-war-putin-medals-bucha-b2060568.html` (Retrieved 25.2.2024)
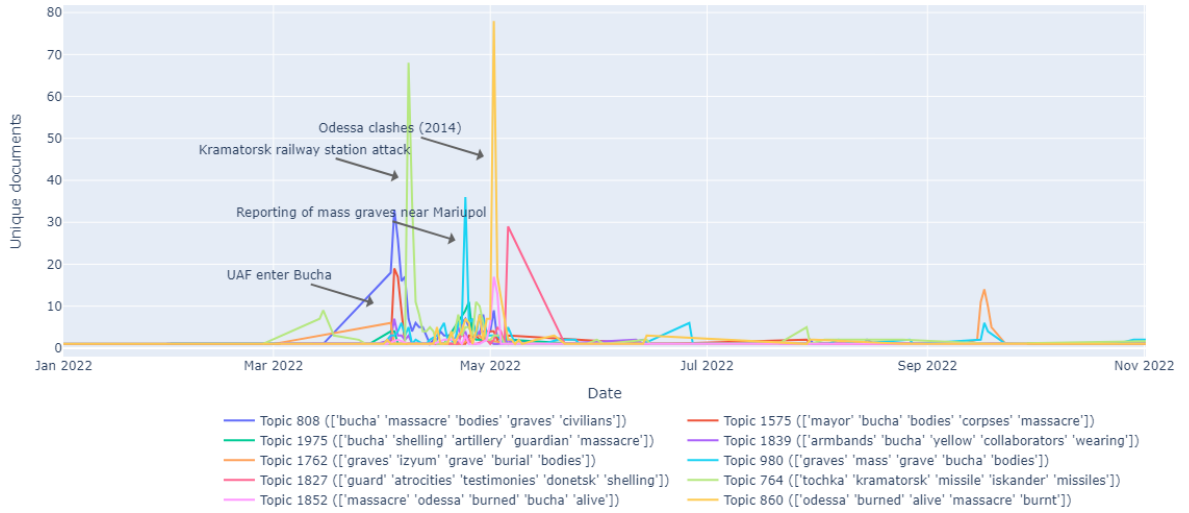
Figure 33: Top ten topics most similar to the keyword "bucha" in M_2. Similarity score range from $0.5295 \rightarrow 0.2823$.

it may for other themes or discussions. Some of these neutral keywords include words such as "shelling", "mariupol", "mayor", "armbands" and "kramatorsk" which do not seem to be similar at first glance. The words that do provide some context, however, paint a pretty clear picture of how they perceive the reports. Some of these keywords include "propaganda", "staged", and "fake".

To understand why so many seemingly unrelated keywords are associated with "bucha", the ten most similar topics were plotted on a timeline by date. The first noteworthy characteristic is that most topics that are deemed similar have a very narrow set of dates where discussions were classified as being a part of that specific topic. Once these topics were plotted and the date ranges of interest were identified, events that were associated with each topic were applied as labels to the automatically generated topics.[13] See Figure 33.

Focusing on topics 808 and 1575 in Figure 33, both encompass Twitter discussions directly related to the Bucha massacre. A key temporal distinction exists between the two, however: discussions within topic 808 begin on April 3rd, while those in topic 1575

---

13. This was done by manually reading discussions within date ranges as well as combining automated information gathering by having by integrating search engine queries with a topic's keywords close to the date range of interest.

commence on April 4th. Topic 1575 also includes the keyword "mayor" and manifests a higher prevalence of conspiracy theories concerning the events in Bucha.

According to this theory, because the mayor of Bucha announced that the town was liberated on March 30th, this purportedly contradicts the timeframe between the Russian withdrawal and the emergence of images depicting deceased civilians, implying Ukrainian responsibility for the atrocities. Notably, official Russian Twitter accounts disseminated various iterations of this conspiracy theory in the late hours of April 3rd and April 4th.[14] The equivalent topics within model M_1 suggest that a now-suspended Twitter account might have been the source or at the very least a primary contributor to this conspiracy theory. This implies that Russian government-controlled accounts did not necessarily introduce this specific narrative but rather amplified pre-existing, convenient narratives within the online discourse.

Topics 1839 and 808 also include discussions of another theory that dead civilians were killed by Ukrainian troops because they were wearing white arm bands, the color that Russian forces used to identify friendly troops. This does not appear to be a widely held belief even amongst the more conspiratorial individuals. However, it illustrates quite well how conspiracy theories are reflexive and can act as an explanatory mechanism.

Topics 764 and 980 contain discussions about the Kramatorsk railway attack and reporting around mass graves near Mariupol. These topics appear to be similar to 'Bucha' due to the fact that they use similar language discussing these events as being falsehoods by the Ukrainian government to discredit the Russian armed forces. In fact, several discussions regarding the Kramatorsk railway attack directly reference the Bucha massacre to justify Russia's invasion. According to this argument, which has also been presented in some forms by the Russian government, the Ukrainian state is an irredeemable, violent state run by "nazis" with constant violations of the rights of Ukrainians. Much like with the Bucha massacre, this reflects the conspiratorial type of explanatory mechanisms that some users appear to embrace where they actively align their interpretation of events to match their priors rather than revise their pre-existing beliefs.

---

14. See Appendix A, Tweet Ids: 1510669717350064134, 1510929909803274240

9.3 Other Themes

During data collection and processing, some additional themes were identified. These themes were generally broader and span beyond individual topics, events or date ranges. The following section will deal with some these themes.

9.3.1 The Denial of Agency

A commonly recurring, yet somewhat obscure theme that is not directly noticeable in any singular topic or group of tweets is a generally cynical view on agency. This can be seen in some previously discussed topics where many views or interpretations of current events rely on strong assumptions about some party's behavior. For example, in subsection 9.1.1, it was noted that many users will claim that Zelensky is an obstacle to peace. These users may add a caveat that Zelensky is somehow being controlled by larger powers. Even if we operated under the assumption that such claims were true, these views ignore or fail to explain why the broader Ukrainian society as a whole would still support Zelensky.

Belittling or demeaning adversaries, in this case Ukrainians and their leadership, is not particularly unusual in other observed narratives and patterns. However, ironically, many discussions undermine Russian agency as well. A common trope that keeps being re-used is that Russia was somehow 'provoked' into launching the invasion, that Russian leadership is inherently peaceful but was somehow tricked into committing an act that it would never have done if it was not for outside influence. While the goals of such transparently bad-faith arguments are likely to excuse the acts of the Kremlin by pinning the blame on outside forces, what these talking points actually do is imply that Russians and Ukrainians actually have no agency and are easy to manipulate.

In reality both the broader Russian and Ukrainian societies act as major stakeholders in the war. No political entity can fully pursue its objectives without some level of support from the general population and any model that denies this will fail to illustrate an accurate picture of the dynamics in play. In the case of Russia, Russian leadership has

echoed the notion that it was somehow dragged into a war of necessity[15] but surveys suggest that the general populace perceives greatest benefit of the war as capturing territory.[16] This is one of the many examples where foreign advocates of the Kremlin's interests share similar or identical talking points to narratives designed for the foreign information space but deviate heavily from what Russians themselves believe.

The readiness to dismiss Russian agency by suggesting that Russians are easily deceived and influenced by foreign adversaries is an issue that has not received extensive media attention but certainly warrants closer examination in future studies.

9.3.2 COVID-19, Vaccines and Conspiracies

One of the most common subjects of discussion was the COVID-19 pandemic as well as the vaccines.[17] The topics corresponding to these discussions were grouped slightly differently in M_1 and M_2, with M_1 grouping tweets from specific Twitter accounts discussing the subjects in question whereas M_2 grouped these discussions in more general terms.

While the distribution of discussions regarding COVID-19 generally falls in line with the overall distribution of tweets, the most interesting individual date as seen in Figure 34 is May 22, 2022, the same day of as the World Economic Forum's annual meeting. The meeting itself became a subject of numerous conspiracy theories, including that COVID-19, the mRNA vaccines, or both, are a part of 'The great reset' by the ruling elites to bring a 'new world order'.

---

15. Example: `https://www.theguardian.com/world/2023/mar/04/russia-sergei-lavrov-ukraine-war-india-conference` (Retrieved 14.11.2023)

16. See Smeltz, Volkov, and Goncharov June 2023, Figure *Benefits of Special Military Operation*.

17. The Pfizer-BioNTech vaccine seems to be the most discussed vaccine in particular, see Figure 29 where 'Pfizer' is the third most discussed brand according to context annotations provided by the Twitter API.
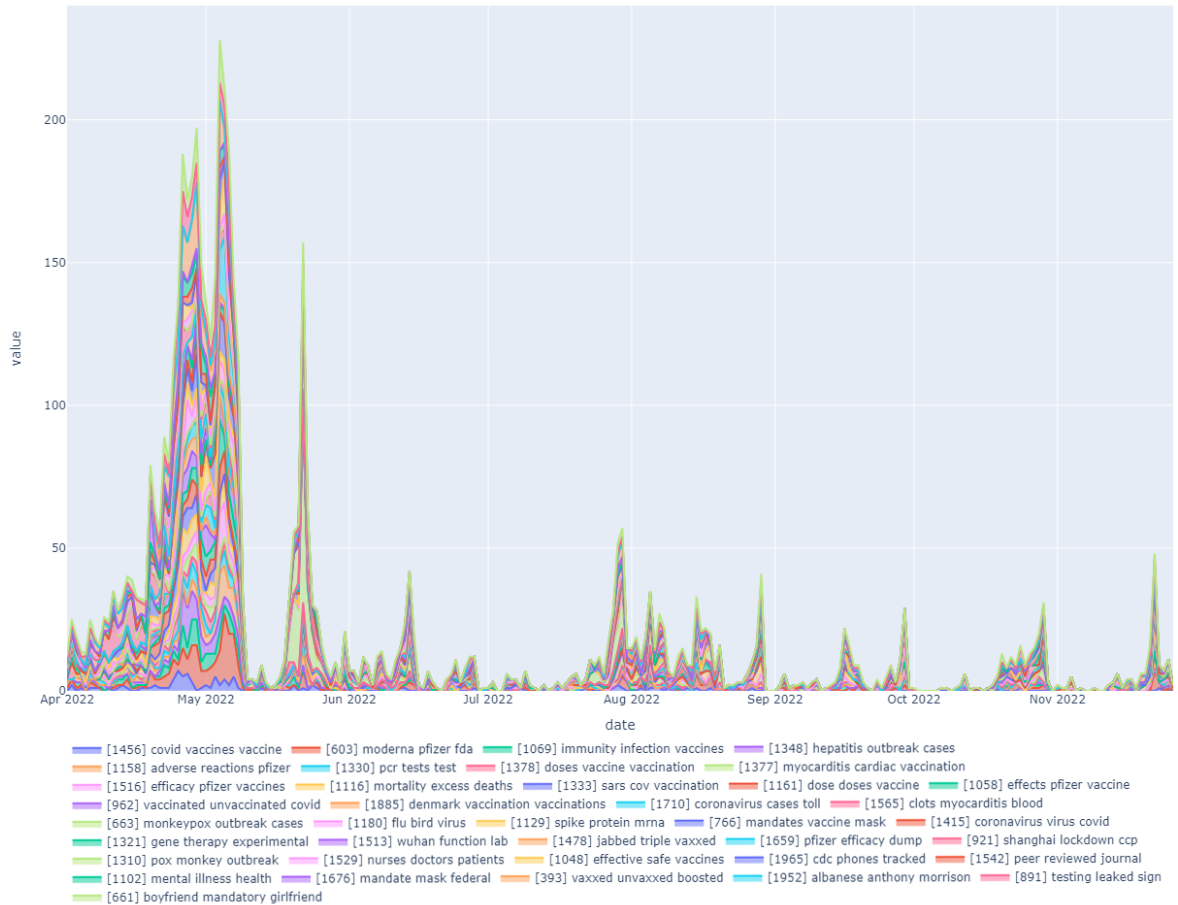
Figure 34: Distribution of discussions and topics most similar to 'covid' in M_2. A significant spike in discussions on May 22, 2022 appears to be driven by the World Economic Forum's annual meeting in Davos.

9.4 Other Actors

This section goes more in depth into some lesser known figures who appear frequently or are held as regarded as authoritative voices amongst this subset of accounts. This is done by combining topic models, annotation data as well as follower data. For this section both models M_1 and M_2 are used, where M_1 may produce results (namely individual twitter accounts) that would otherwise be filtered out from M_2.

In order to filter out the first set of individuals, both topic models were queried with the following keywords: `professor, prof, expert, journalist, general, colonel, officer, dr, doctor`. These keywords were selected because these areas of expertise and professions are either of direct interest to this paper or have appeared in previous sections.

9.4.1 Professors and Academia

Keyword(s): professor, prof

In both models, the two names that appear with these queries are Jeffrey Sachs and John Mearsheimer. While these names may at first appear to not be connected to each other, how they appear in discussions paints a clearer picture.

As previously mentioned in 8.2.1, John Mearsheimer's lecture titled "Why is Ukraine the West's Fault?" is the most shared individual YouTube video in the dataset. In said lecture, Mearsheimer provides a point of view that primarily pins the blame on the West for what is happening in Ukraine. In a similar fashion clips and quotes of Jeffrey Sachs appear whenever such references are convenient.

9.4.2 Journalists

Keyword(s): journalist

The only individual directly identified by the keyword "journalist" is Julian Assange.[18] No other individuals are directly identified by either model, however, in the top fifty most followed accounts, nine accounts are owned by self-described independent journalists or publications. Within that same top fifty list, no legacy media outlet made an appearance.[19] The only mainstream media figure to appear in the same list was Tucker Carlson, ranked at 45th.[20]

The only common denominator is that all of these accounts either have spread or continue to spread narratives that actively support Russia or blame the United states for Russia's invasion. Many of these self-described independent journalists also have worked with or for Russian state affiliated media such as *Sputnik* or *Russia Today.*

Russian state-affiliated channels frequently invite self-described independent journalists and experts to amplify narratives that support the Russian state's interests.[21] Even in cases where said individuals do not want to associate themselves with Russian state affiliated media, outlets such as *Sputnik* or *Russia Today* are used to amplify the message.[22] [23]

9.4.3 Military Officials

Keyword(s): general, colonel, officer

In Section 8.2.1 one of the most widely shared YouTube videos within the dataset was

---

18. Assange is also one of the most referenced individuals identified by Twitter's annotation data. See Section 8.4.1 and Appendix B.

19. Reuters is the most followed legacy media outlet, ranked at 83.

20. Carlson is also one of the most referenced people identified by Twitter's entity annotation data. See Appendix B.

21. For example, Assange was provided a platform on *Russia Today* to amplify leaks. See United States. Office of the Director of National Intelligence 2017, p. 3.

22. Example of Jeffrey Sachs, who was mentioned in the previous subsection: `https://sputnikglo be.com/20230916/jeffrey-sachs-us-sanctions-against-russia-and-china-destined-to-fai l-1113405612.html` (Retrieved 4.3.2024)

23. As of March 2024, Sachs eventually made at least one appearance on well-known Russian propaganda shows, discussing several issues such as "Russophobia" which is "extremely dangerous". See `https://twitter.com/VRSoloviev/status/1773653599517577553` (Retrieved 31.3.2024)

an interview with former United States officer Richard Black. This begged the question if there are other military officials, particularly officers, who are frequently referenced.

The only two names of Western officers that are identifiable by topic models are Richard Black and Douglas Macgregor. Much like Richard Black, Macgregor is a retired army colonel who has spread pro-Russia narratives. In particular, Macgregor has been making strong predictions with no conditions about an inevitable and dramatic collapse of Ukrainian forces.[24]

Neither of these individuals had a social media presence on Twitter at the time but rather clips of their interviews were shared as seeming validation to Russian narratives from Western voices. No other Western military officers were identifiable using keyword associations from generated topic models.

9.4.4 Medical Professionals

Keyword(s): doctor, dr, md

While medical matters are not directly related to the subject, the prevalence of discussions regarding the COVID-19 pandemic warrant some further evaluation as to what exactly is being discussed.[25] The four names that come up are Anthony Fauci, Robert Malone, Peter A. McCullough, and Ryan Cole.

Anthony Fauci is the outlier here. As the former director of the National Institute of Allergy and Infectious Diseases (NIAID), he is primarily a subject of discussions rather than being quoted or referenced as a source. Many of these discussions are somewhat benign in their criticism but some of them evolve into exhibiting conspiratorial thinking. For example, these discussions often allege a "lab leak" cover up in "Wuhan" as well as him being a part of orchestrating the "Plandemic".

---

24. For example: `https://www.foxnews.com/video/6299099588001`, Interview from 28.02.2022, Timestamp 1:05 (Retrieved 6.3.2024)

25. See Figures 29 and 34.

Topic 1513

Figure 35: Wordcloud of the topic most similar to to the keyword 'Fauci' in M_2.

The three remaining names share more common characteristics. Robert Malone has branded himself as the "inventor of mRNA vaccines",[26] a title that he has leveraged when questioning the efficacy of mRNA vaccines. Malone has made routine appearances on right-wing shows to spread his claims (Alba 2022).

The third medical practitioner identified by topic models is Peter McCullough, a cardiologist. Unlike other names, McCullough only seems to appear in M_1 by his Twitter handle, suggesting his presence on Twitter being a contributing factor.[27].

The last identifiable medical practitioner from the topic models is Ryan Cole. Cole had his medical license restricted for his actions during the COVID-19 pandemic.[28] According to a report by Washington state's medical board:

> [Cole] engaged in multiple acts of dishonesty when he made numerous demonstrably false and/or misleading statements in these presentations regarding the COVID-19 pandemic, COVID-19 vaccines, the use of ivermectin to treat COVID-19, and the effectiveness of masks.[29]

---

26. `https://www.rwmalonemd.com/rna-vaccine-inventor` (Retrieved 6.3.2024).

27. McCullough's Twitter handle is the only one of these four that appears in the top two hundred followed accounts, ranked at 143.

28. See `https://wmc.wa.gov/news/wmc-disciplines-idaho-physician%E2%80%99s-license` (Retrieved 7.3.2024)

29. See `https://www.documentcloud.org/documents/24357659-wa-med-commn-restriction?responsive=1&title=1`, Page 22. (Retrieved 7.3.2024)

Malone, McCullough and Cole being mentioned in discussions, particularly as a source, illustrates a similar trend to what can be seen with John Mearsheimer, Richard Black, and Douglas Macgregor. All of these individuals hold or held positions of expertise in specific areas where sharing their insights could be valuable to the general public. However, their current public appeal seems less tied to their established credentials and more to their role in validating viewpoints considered marginal within their respective disciplines. In essence, the relationship between tweets relating to COVID-19 and the Russian invasion of Ukraine have more to do with thinking and argumentative patterns rather than a direct link between the two themes.

10 Synthesis

This chapter seeks to answer the research questions posed in Section 1.2 using observations and findings from previous sections.

10.1 Are There Any Identifiable Factors That can be Attributed to Trusting the Russian Government?

Establishing a direct link between specific factors and trust proves challenging. This might, in part, be attributable to the seemingly minimal emphasis placed on source reliability.

The problem in dealing with a dataset that revolves around a war is that the fog of war can obfuscate reality to a point where even people operating in good faith will not have access to the facts purely because so many factors remain unknown. What makes this dataset so intriguing is that untrustworthy sources who have made demonstrably false statements consistently appear and are shared frequently despite said unreliability. Two good examples of this are John Mearsheimer and Douglas Macgregor. Both of these individuals held well-respected positions within their disciplines.

Macgregor is probably the most egregious example. In a Fox News interview four days after the full-scale invasion started, he declared the following:

> [...] what's happened now is the battle in eastern Ukraine is almost over. All the Ukrainian troops there have been largely surrounded and cut off. You have a concentration to the south-east of thirty to forty thousand of them. And if they do not surrender within the next twenty four hours, I suspect that the Russians will ultimately annihilate them [...] the game is over.[1]

---

1. See `https://www.foxnews.com/video/6299099588001` (Retrieved 14.3.2024)

Around a year later in an interview with Tucker Carlson, Macgregor claimed that over 400 000 Ukrainian soldiers had been killed versus 50 000 Russian troops.[2] The fog of war creates an environment where various, good-faith estimates can have wide margins of error. However, Macgregor has on several occasions made strong predictions and statements that can be disproved with the little reliable information that we have. These numbers deviate so heavily from pre-war personnel estimates that even when accounting for increases in manpower brought by mobilization, Macgregor was making claims that are directly contradicting the nature of the frontline. Visually confirmed materiel losses as well as the fact that his claims explicitly do not account those that are wounded or missing in action greatly undermine these claims further.

Macgregor has consistently made strong quantitative judgments and predictions without conditions or nuance that would explain what would need to happen for these predictions to be accurate. If we were to assume that the information space only valued trustworthy sources, individuals like Macgregor would be ignored or at the very least their popularity would dwindle. Instead, the opposite appears to be true. Despite over a year of what could be described as questionable predictions, when Macgregor joined Twitter in May 2023, he found a large following with over 275 000 followers as of March 2024.

Another example, albeit less egregious, is John Mearsheimer's lecture from 2015. John Mearsheimer's lecture which was the most shared YouTube video identified in Section 8.2.1 also illustrates the wider scale of this phenomenon. Using archiving services such as `archive.is` or `archive.org` we can quantify the growth of of the video's popularity. On November 1st, 2020, Mearsheimer's lecture titled *Why Ukraine is the West's fault* had 42 232 views with less than 600 likes.[3] By December 31st, 2021, around two months before the full-scale invasion, that number had risen to over 525 000 views and

---

2. See Timestamp 19:50, `https://twitter.com/i/status/1693761723230990509` (Retrieved 14.3.2024)

3. See `https://web.archive.org/web/20201101180138/https://www.youtube.com/watch?v=JrMiSQAGOS4&feature=youtu.be` (Retrieved 12.3.2024).

over 8000 likes[4] Three days after the full-scale invasion the view count had jumped to over 10 758 000 views with over 105 000 likes.[5] As of this writing, two years after the launch of the full-scale invasion, the view count is at over 29 719 000 views with over 279 000 likes.[6]

The lecture skyrocketed in view counts around early to mid 2022 when it was widely shared by pro-Russia supporters as being somewhat prophetic. The problem with this view is that in the very same lecture, Mearsheimer explicitly states that he believes that Putin does not want to conquer Ukraine:

> [...] what they're doing is not trying to conquer Ukraine. There are many people who are saying the Russians are going to go on a rampage and try to re-establish the Soviet Union or greater Russia and so forth and so on. That's not gonna happen. Putin is much too smart for that.[7]

Any good faith criticism of Mearsheimer's lecture should also recognize that circumstances evolve over time. The audience's tendency to widely circulate the lecture as a precise forecast of a full-scale invasion, even though Mearsheimer himself disavows such a possibility by asserting that "Putin is much too smart for that" underscores how factual accuracy is not the primary consideration that is taken into account. Mearsheimer's, much like Macgregor's, real appeal appears to be that their credentials legitimize a specific worldview.

Similarly, the medical professionals identified in Section 9.4.4 are valued and their views shared widely due to their credentials. However, these same individuals may express opinions that contradict both the prevailing views of their peers and the majority of published research. When someone's academic or professional background is used to

---

4. See `https://web.archive.org/web/20211231034827/https://www.youtube.com/watch?app=desktop&v=JrMiSQAGOS4&feature=youtu.be` (Retrieved 12.3.2024).

5. See `https://web.archive.org/web/20220228000756/https://www.youtube.com/watch?v=JrMiSQAGOS4` (Retrieved 12.3.2024).

6. See `https://www.youtube.com/watch?v=JrMiSQAGOS4` (Retrieved 12.3.2024).

7. See Timestamp 23:11, `https://youtu.be/JrMiSQAGOS4?t=1391` (Retrieved 12.3.2024).

establish trust, yet their views consistently and significantly diverge from the majority of their peers, it raises questions about whether these credentials are genuinely being used to pursue a well-informed view.

The first research question was posed under the assumption that positive engagements with official Russian communication channels were driven by the idea that the Russian government was a reliable and compelling communicator. After reviewing tweet samples filtered with topic models, following data and external traffic references, it appears that these engagements may be driven by the fact that the Russian government is seen as an alternative to Western governments, institutions and legacy media outlets. In other words, the primary driving factor may not be trust in the Russian government as much as it may be distrust in Western ones.

10.2 Are There Additional Observations or Trends Related to Trust in the Russian government That Warrant Further Investigation?

Two notable themes and observations that warrant further study are linked to the relationship between Russian state-controlled communication channels and the audience.

Firstly, there are clear signs that the audience is willing not only to adopt talking points but also terminology. One example of this is on May 2nd 2022, the Russian ministry of foreign affairs put out a tweet[8] commemorating the "Odessa massacre", its preferred terminology for the Odesa clashes of 2014. On the very same day both trained topic models see a visible spike in discussions with that very same choice of terminology.[9] This does not appear to be a universal dynamic, however. For example, the Kremlin's preferred phrasing of the invasion, or as it describes it, the "special military operation" did not appear to be widely used to describe Russia's full-scale invasion of Ukraine, at least among the international audience.

---

8. See Tweet Id: 1520871167720099840, or `https://twitter.com/mfa_russia/status/15208711` `67720099840`.

9. Can also be seen in Figure 33, Topic 860.

Secondly, the flow of information may not always be straightforward. For example regarding the Bucha massacre, official Russian accounts on platforms like Twitter and Telegram pushed alternative narratives but some early versions blaming Ukraine appeared in non-government sources. This could suggest these conspiracy theories emerged independently. It is also possible that the Kremlin's tactic of not just denying but also portraying Russians as the real victims is so predictable that supporters can pre-emptively echo similar talking points.

One noteworthy observation that was discovered through the use of topic models was the apparent asymmetry in perceptions of various leaders.[10] While Zelensky may be viewed overwhelmingly negatively and described with more emotionally charged language, the opposite did not appear to hold true for Vladimir Putin. According to Twitter's annotation data, Vladimir Putin and Volodymyr Zelensky were the second and fourth most discussed person entities respectively,[11] suggesting that this behavior is not something that could be simply explained by a lack of data.

From the very same topic models we can also see that discussions around "Biden" are highly varied. These discussions range from relating to the Russian invasion of Ukraine to domestic matters as well as President Biden's son, Hunter Biden. Discussions around Hunter Biden are a mixture of factual reporting with some more conspiratorial claims, which highlights some of the more politically right-leaning content that can be seen in the dataset. This naturally begs the question to what extent right or left wing views are held by users in the dataset.

Quantifiable data points, such as annotation references to individuals as well as the most followed accounts paint a mixed picture. On the one hand annotation data shows that some of the most engaged accounts included well known right-wing media personalities such as Jack Posobiec, Tucker Carlson, and Paul Joseph Watson.[12] On the other hand, "following" account data showed some right-wing pundits but a lot of left-leaning "independent journalists" that covered the invasion in a way that was

---

10. See Section 9.1 and Figures 30, 31.
11. See Figure 28.
12. See Appendix B.

104

either less critical or even sympathetic to the Russian message. This includes former *Russia Today* presenter George Galloway,[13] as well as several individuals associated with *The Grayzone*, a smaller left-leaning publication.

Interestingly Clare Daly and Mick Wallace, two former Irish members of the European parliament appear relatively highly in follower data.[14] [15] This is particularly noteworthy because Ireland does not even appear in the top twenty most common countries[16] nor have any tweets from the Russian embassy in Ireland been used to collect users. At the time, these were relatively unknown members of the European parliament who appear to have gained a following in part due to their political positions which seek to undermine aid to Ukraine. For example, on December 15th, 2021, Daly had less than 55 000 followers on Twitter[17] and that follower count has increased to over 413 000[18] two years after the war.

Due to limited data availability, it is unclear whether these left-leaning and right-leaning pundits, politicians and publications appear because distinct political groups co-exist within the same information space or whether there is some level of overlap. In the latter case, the audience would potentially be willing to consume information from a wide political spectrum as long as it somehow relates to Russia's invasion of Ukraine.

If there is one generalization which can be made with relatively high confidence, however, it is that there does appear to be a rejection of mainstream, traditional information sources.[19] This does not only appear when it comes to political content, but also when it comes to consuming information about the war where some of the most

---

13. In a byelection in early 2024, Galloway was elected to serve as a member of the British parliament but later lost his parliamentary seat in the July 2024 elections.

14. Both Daly and Wallace lost their seats after the 2024 European elections.

15. Daly is ranked 21st and Wallace 60th respectively.

16. Based on self-reported geocoded data, see Figure 21.

17. Archived from 15.12.2021, `https://web.archive.org/web/20211215173028/https://twitter.com/ClareDalyMEP` (Retrieved 20.3.2024).

18. Retrieved 20.3.2024

19. This also applies to legacy media, except when the legacy media has something to say that fits pre-existing perceptions. See Section 8.2.3.

followed accounts do not necessarily have clear left or right leanings, just a pro-Russian interpretation of the war's progress and goals.

The apparent overlap and prevalence between various conspiracy theories and beliefs is noteworthy as well. One possible explanation for such overlap would be that if we are to assume that conspiracy theories are an explanation mechanism used to make sense of the world (Prooijen and Jostmann 2012, p. 109), then it makes sense that an information environment where reliable information is unavailable would provide the conditions for various conspiracy theories to flourish. Prooijen and Jostmann argue that the perceived morality of authorities may affect susceptibility to conspiratorial beliefs in cases of uncertainty. If we assume that this is true, it begs the question as to which authorities are being perceived as immoral or unreliable. On the one hand, conspiracies that appear in the dataset regarding events such as the Bucha massacre, suggest that the Ukrainian authorities are inherently unreliable. On the other hand, conspiratorial beliefs can be seen beyond just Ukraine and can target even lower level U.S. officials. For instance, Anthony Fauci[20] was subject to various conspiracy theories such as accusations of being a part of a cover-up or being a part of the "Plandemic". It could be argued that since there appears to be a perception that the Ukrainian government's leadership is merely a puppet of the United States,[21] that perceptions on Ukrainian officials may be closely tied to perceptions on U.S. officials.

Notably, some conspiratorial beliefs extend beyond the United States itself to New World Order conspiracies,[22] though such conspiracy theories were only predominantly visible on May 22, 2022. Interestingly, no QAnon conspiracy theories were identified in the collected data.[23]

The prevalence of such motivated thinking, particularly when it comes to atrocities such as the Kramatorsk railway station attack or the Bucha massacre suggest that conspiratorial thinking is a better descriptor for this behavior rather than general

---

20. See Section 9.4.4.

21. See Figure 30 and Section 9.1.1.

22. See Figure 34.

23. This may to be due to stricter enforcement of Twitter policies prior to Musk's acquisition. Whether these strict policies still exist and are enforced today is unclear.

susceptibility to fake news where lazy thinking appears to play a larger role (Pennycook and Rand 2019, p. 48). While in such cases motivated thinking provides an explanation as to why or how such atrocities could have happened, that alone does not explain why these users felt the need to provide an alternative theory as to why Russia is the real victim of some conspiracy.

Similar to the other topics discussed in this paper, there is a considerable challenge when attempting to quantify any specific theme. For instance, Twitter users may on average be more susceptible to conspiratorial thinking than the general population. Likewise, while atrocity denial was common when talking about events such as the Bucha massacre, ultimately that information space is shaped by those who were willing to partake in the discussions in the first place. In other words people who were not partaking in the discussion but unwilling to push back had no effect on the state of the discourse. Finally, if we are to assume that truly perceived morality of authorities is linked to conspiratorial beliefs, we must also assume that Twitter users who are predominantly pro-Ukraine may adopt conspiratorial beliefs regarding the Russian government when reliable information is unavailable.

In summary, conspiracy theories were observed in various different contexts. The elements that may lead to their presence and the degree of their popularity requires further study.

10.3 Challenges and Considerations Policymakers Should Take into Account Regarding Russian Information Operations

10.3.1 Truth as a Weapon Against Disinformation

The very existence of such broad influence operations being sponsored by the Russian government,[24] aiming to exploit social media, strongly implies that the Russian state views such platforms, and by extension, freedom of speech as a vulnerability. In response to such challenges, many proposed solutions to fighting misinformation are in

---

24. See Chapters 2 and 6.

the vein of the counterspeech doctrine, or "more speech, not enforced silence".[25] The main problem with this approach is that aims to wield freedom of speech as a weapon whereas the adversaries of Western liberal democracies view that very same freedom as an exploitable vulnerability. If free speech alone had the power to fight misinformation then the United States, which enjoys some of the broadest free speech protections thanks to its constitution, would be one of the most resilient societies against misinformation. That does not, however, appear to be the case.

The general patterns of how information is consumed by users discussed in this thesis suggest that assumptions of the truth having the natural ability to triumph over falsehoods are simplistic to the point that they do not adequately cover all people who are exposed to disinformation. A strategy of trying to fight misinformation by maximizing the reach of the truth can only be effective if we operate under the strong assumption that the truth is something that is universally pursued. Any plan that seeks to fight disinformation or misinformation needs to also account for the fact that empirical studies suggest that fighting misinformation by merely correcting misperceptions may not only be ineffective but may strengthen said views in some cases (Nyhan and Reifler June 2010, eprint pp. 23-24).

The direct alternative, which would be censorship, is not a viable solution either. Even if censorship would exclusively target adversaries that seek to undermine Western liberal democracies, such actions would not be able to cover cases where Western individuals spread misinformation on their own volition, as such speech is often covered by freedom of speech protections.[26]

The point of this section is not to provide a definitive approach to tackling these challenges. It is to recognize that as politicians praise free speech, adversaries actively exploit it. This reveals a fundamental flaw in our problem-solving strategies and hinders our ability to directly address these threats.

---

25. The quote is from Judge Brandeis' opinion in *Whitney v. California*, 1927 and is frequently used to counter policies and calls for censorship.

26. An example of this is the case of the War On Fakes website which was shared by Oliver Stone. See Chapter 2.

10.3.2 Drone Footage as a Means to Shape the Information Space

In Section 8.2 there was a brief mention about the difficulties regarding identifying the prevalence of violent footage. While Twitter's API would consistently return a specific response for 'sensitive' footage, upon further review of the dataset it appears that much footage is not properly labeled as sensitive. This combined with the fact that much of the violent footage was hosted on external platforms (e.g. Telegram) makes it difficult to properly identify how much of the content in question was violent media.

The availability of violent drone footage has been a defining trait of this conflict. Drone footage has been used to try to understand the battlefield dynamics, tactics and shape the information space. Despite the wide availability of such footage, it can often be misinterpreted. For example, footage of a cheap FPV drone destroying a main battle tank should not be used as an argument that tanks are obsolete or universally vulnerable to such attacks.[27] There is good reason to believe that publication bias filters out ineffective strikes or near misses, which makes gauging the real effectiveness and cost of such strikes against armoured platforms harder.

This example illustrates that visual footage appears to be a compelling means of communication while also being susceptible to being misinterpreted or misrepresented. Understanding the impact on the information space and reach of such footage requires further study as it may have an impact on Western communication as well. For example, smaller nations that heavily rely on larger security partners may wish to relax some operations security (OPSEC) rules to publish footage more regularly that can be used to project success and communicate to partners that their support is both impactful and a worthy investment.

This is another area that requires further study and unfortunately the dataset and methodology of data collection did not provide a clear way to track and analyze such footage further.

---

27. These claims also usually fail to take into account that Soviet and Russian armoured platforms do not necessarily share the same vulnerabilities as their Western counterparts.

10.3.3 Generative AI models as Future Threats

During the last few years, the introduction of large language models (LLMs) as well as other AI models have introduced a new way to perform influence operations at scale with a lower cost (Goldstein et al. 2023, p. 6). While AI models are not entirely new, the introduction of API access to AI models, in particular the ChatGPT API, trivializes the creation and automation of inauthentic accounts at low cost and low computational power requirements. Much of the discussion about bots tends to revolve around state-sponsored information operations or large-scale scams. Services such as ChatGPT also make automated and inauthentic accounts accessible to smaller organizations or even individuals. This accessibility paired with Twitter's revenue share program can potentially create an incentive for individuals to use AI generated content to generate revenue.

In May 2024, OpenAI published a blog post[28] detailing how and why it suspended several operations abusing ChatGPT and other OpenAI services. This included operations run by Iran and China as well as two Russian operations. The first one is "Bad Grammar", which was used to create Telegram bots for influence operations targeting the United States, Baltic states, Ukraine and Moldova. The second disrupted operation is nicknamed "Doppelganger".[29] This operation focused on using OpenAI services to create content for Twitter as well as 9GAG.

While several states have been caught using these third-party services to augment their information operations, it is highly probable that in the future disruption of such operations will become more challenging once state-sponsored actors start using their own models. For instance, a 2024 public report by the Estonian Foreign Intelligence Service (EFIS) points to TikTok as a potential source of data collection for the Chinese government's generative AI efforts, extending beyond traditional intelligence gathering.

---

28. Full blog post: `https://openai.com/index/disrupting-deceptive-uses-of-AI-by-covert-influence-operations/` (Retrieved: 2.6.2024)

29. Based on descriptions of the operation, it appears that bots illustrated in Figures 10, 11, and 12 are a part of the Doppelganger operation. See `https://www.disinfo.eu/doppelganger-operation/` for further publicly available details and reports. (Retrieved 2.6.2024)

The massive collection of data provides ByteDance with the opportunity to develop artificial intelligence. China needs access to visual and behavioural data from people of various origins to develop globally competent artificial intelligence. Data collected solely from China would not offer such an opportunity because the appearance and behavioural patterns of people in China significantly differ from those in many other parts of the world.

(Estonian Foreign Intelligence Service 2024, p.77)

The EFIS report highlights a significant future challenge for policymakers. Currently, however, the reliance of Russia, China, and Iran on third-party services for generative AI suggests that these states have limited capabilities in this domain. It suggests limitations in their ability to develop their own high quality models or other factors such as accessibility, integration or scalability could be factors hindering their in-house development.

Regardless of whether these governments leverage third-party tools or develop their own models, policymakers must assume a heightened risk of weaponized generative AI by adversarial states and other actors.

11   Conclusion

This thesis aimed to study the reasons behind the apparent trust many Twitter users placed in official Kremlin communications, despite a series of demonstrable falsehoods in the lead-up to Russia's full-scale invasion of Ukraine. The aim was pursued through the use of content analysis and aggregated statistics of public user and tweet data.

Pre-existing rule-based tools, such as certain sentiment analysis libraries were inadequate for the scope of this thesis, as the information environment surrounding the conflict introduced an evolving vernacular featuring transliterations and phrases which gained new meanings following events on the battlefield. The use of such tools is not completely unviable but it requires significant domain knowledge and a lexicon tailored to account for words associated with the conflict itself.

Initial observations regarding account creation dates and scores using the third-party tool Botometer, suggested that this dataset would have an extremely high number of inauthentic automated accounts, often referred to as bots. However, a more detailed and manual examination of account characteristics and behaviors against known Russian state-sponsored bot networks suggest that Botometer greatly inflated this value. An alternative approach of identifying bots through the use of already collected retweet data proved to be valuable when identifying amplification bots. This approach was useful for identifying such accounts that could be studied closer but it did not provide a reliable means to quantify the frequency of bots in the broader dataset. Other data points such as comparing suspension rates to accounts collected in 2022 suggest that their prevalence is relatively limited. Greater data availability would be required to make an assessment with higher confidence.

No direct factors could be pinpointed as to why the collected accounts would place their trust in the Russian government. However, a general pattern of contrarian reasoning seems to contribute to behavior that resembles "trust". It appears that many of these accounts do not necessarily trust the Russian government, but rather they distrust Western institutions and legacy media outlets more. Signs of such distrust can be seen

from various data points.

Firstly, external URL references show that traditional media outlets received were cited infrequently. Most outbound traffic led to external social media platforms such as YouTube and Telegram. Fringe publications, some of which are directly associated with the Russian government, received more references than legacy media publications.

Secondly, the distrust appears to extend to subjects unrelated to the Russian invasion of Ukraine. For example, discussions around the COVID-19 pandemic featured discussions that are highly conspiratorial in nature, including attacks on public officials such as Anthony Fauci, as well as sharing content from anti-vaccine activists and doctors.

Thirdly, tweet timestamps combined with topic models show that in some instances users would instantly dismiss footage of Russian atrocities as "fake", even before the Russian government even had the chance to deny said atrocities. Such dismissals would often be followed up with some conspiratorial explanation for what actually happened. These explanations are not necessarily consistent among users except in the sense that they ultimately exist to reject the Ukrainian version of events. While it may be tempting to attribute such motivated reasoning to blind trust in the Russian government, the fact that these conspiratorial explanations are reflexive to Ukrainian claims rather than a reinforcement of the Kremlin's narrative suggest contrarian motivations are at play, rather than blind allegiance to the Kremlin.

Finally, Twitter's NER and following data shows users were observed to interact with and consume information from a diverse range of information sources. These accounts can be broadly classified as being politically fringe accounts on both the political left and right. Note that these accounts did not necessarily show explicit support for Russia's invasion of Ukraine but rather presented their views with a spin that blamed the United States and its Western partners for Russia's actions. The actual influence of these fringe accounts remains unclear due to data availability. Additionally, it is uncertain whether the diverse information consumption is driven by pro-Russia users who are open to pro-Russian perspectives regardless of other political views, or if it reflects the presence of distinct, smaller political groups within the dataset.

Bibliography

Alba, Davey. 2022. *The Latest Covid Misinformation Star Says He Invented the Vaccines.* [Online; accessed 7-March-2024]. `https://www.nytimes.com/2022/04/03/technology/robert-malone-covid.html`.

American Sunlight Project. October 2024. *Sleeper Agents: Uncovering a decade-old, global network of suspicious adversarial accounts spreading Russian propaganda and other divisive content.* `https://www.americansunlight.org/sleeper-agents-asp-report`.

Angelov, Dimo. 2020. "Top2Vec: Distributed Representations of Topics", arXiv: `2008.09470 [cs.CL]`.

Ukraine tensions: Russia invasion could begin any day, US warns. February 2022. `https://www.bbc.com/news/world-europe-60355295`.

Browne, Malachy, and Dmitriy Khavin. April 2022. *Russian soldiers opened fire on a cyclist in Bucha, new video shows.* `https://www.nytimes.com/2022/04/05/world/europe/bucha-shooting-video.html`.

Clark, Mason. 2020. "Russian Hybrid Warfare". *The Institute For The Study of War,* `https://www.understandingwar.org/report/russian-hybrid-warfare`.

DFRLab. June 2024. *Another battlefield: Telegram as a digital front in Russia's war against Ukraine.* `https://dfrlab.org/2024/06/10/another-battlefield-russian-telegram/`.

DiResta, Renee, Kris Shaffer, Becky Ruppel, David Sullivan, Robert C. Matney, Ryan Fox, Jonathan Albright, and Ben Johnson. 2019. "The tactics & tropes of the Internet Research Agency". eprint: `https://digitalcommons.unl.edu/senatedocs/2/`.

Egger, Roman, and Joanne Yu. 2022. "A Topic Modeling Comparison Between LDA, NMF, Top2Vec, and BERTopic to Demystify Twitter Posts". *Frontiers in Sociology* 7. ISSN: 2297-7775. `https://doi.org/10.3389/fsoc.2022.886498`. `https://www.frontiersin.org/articles/10.3389/fsoc.2022.886498`.

Estonian Foreign Intelligence Service. 2024. *International Security and Estonia 2024.* `https://raport.valisluureamet.ee/2024/en/`. eprint: `https://raport.valisluu` `reamet.ee/2024/assets/VLA_ENG-raport_2024_240122_Web.pdf`.

Gallwitz, Florian, and Michael Kreil. 2022. "Investigating the Validity of Botometer-Based Social Bot Studies". In *Disinformation in Open Online Media,* edited by Francesca Spezzano, Adriana Amaral, Davide Ceolin, Lisa Fazio, and Edoardo Serra, 63–78. Cham: Springer International Publishing. ISBN: 978-3-031-18253-2.

Goldstein, Josh A., Girish Sastry, Micah Musser, Renee DiResta, Matthew Gentzel, and Katerina Sedova. 2023. *Generative Language Models and Automated Influence Operations: Emerging Threats and Potential Mitigations.* arXiv: `2301.04246 [cs.CY]`.

Grootendorst, Maarten. 2022. "BERTopic: Neural topic modeling with a class-based TF-IDF procedure". *arXiv preprint arXiv:2203.05794.*

Hall, Stephen G. F., and Thomas Ambrosio. 2017. "Authoritarian learning: a conceptual overview". *East European Politics* 33 (2): 143–161. `https://doi.org/10.1080/21` `599165.2017.1307826`. eprint: `https://doi.org/10.1080/21599165.2017.1307826`. `https://doi.org/10.1080/21599165.2017.1307826`.

Kragh, Martin, Erik Andermo, and Liliia Makashova. 2022. "Conspiracy theories in Russian security thinking". *Journal of Strategic Studies* 45 (3): 334–368. `https://doi` `.org/10.1080/01402390.2020.1717954`. eprint: `https://doi.org/10.1080/014023` `90.2020.1717954`. `https://doi.org/10.1080/01402390.2020.1717954`.

Leonard, Billy. April 2023. *Ukraine remains Russia's biggest cyber focus in 2023.* `htt` `ps://blog.google/threat-analysis-group/ukraine-remains-russias-biggest-` `cyber-focus-in-2023/`.

Levada-Center. November 2022. *The main sources of information of Russians.* `https` `://www.levada.ru/en/2022/11/10/the-main-sources-of-information-of-russi` `ans/`.

Libicki, Martin C. 1995. *What is information warfare?* Center for Advanced Concepts / Technology, Institute for National Strategic Studies, National Defense University.

Luscombe, Richard, and Kari Paul. April 2023. *Pentagon leaks: How Jack Teixeira was identified as the alleged source.* `https://www.theguardian.com/us-news/2023/apr/14/how-jack-teixeira-was-caught-pentagon-leaks-fbi-bellingcat`.

Nyhan, Brendan, and Jason Reifler. June 2010. "When Corrections Fail: The Persistence of Political Misperceptions". *Political Behavior* 32 (): 303–330. `https://doi.org/10.1007/s11109-010-9112-2`. eprint: `https://www.researchgate.net/publication/225336846_When_Corrections_Fail_The_Persistence_of_Political_Misperceptions`.

Onderco, Michal, and Florian Stoeckel. 2020. "Conspiratorial thinking and foreign policy views: evidence from Central Europe". *Journal of Elections, Public Opinion and Parties* 33:182–196.

Paul, Christopher, and Miriam Matthews. July 2016. *Russia's "firehose of falsehood" propaganda model.* `https://www.rand.org/pubs/perspectives/PE198.html`.

Pennycook, Gordon, and David G. Rand. 2019. "Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning". The Cognitive Science of Political Thought, *Cognition* 188:39–50. ISSN: 0010-0277. `https://doi.org/https://doi.org/10.1016/j.cognition.2018.06.011`. `https://www.sciencedirect.com/science/article/pii/S001002771830163X`.

Prooijen, J.-W. van, and N. B. Jostmann. 2012. "Belief in conspiracy theories: The influence of uncertainty and perceived morality". *European Journal of Social Psychology* 43:109–115. `https://doi.org/10.1002/ejsp.1922`.

Qurium Media Foundation. 2024. "How Russia uses EU companies for propaganda". Accessed: 2024-09-26, `https://www.qurium.org/alerts/exposing-the-evil-empire-of-doppelganger-disinformation/`.

Smeltz, Dina, Denis Volkov, and Stepan Goncharov. June 2023. *Russians are split over benefits of military action in Ukraine.* `https://globalaffairs.org/research/public-opinion-survey/russians-are-split-over-benefits-military-action-ukraine`.

Timberg, Craig, and Elizabeth Dwoskin. July 2018. "Twitter is sweeping out fake accounts like never before, putting user growth at risk". *The Washington Post* (). `https://www.washingtonpost.com/technology/2018/07/06/twitter-is-sweeping-out-fake-accounts-like-never-before-putting-user-growth-risk/`.

Toler, Aric. April 2023. *From discord to 4chan: The improbable journey of a us intelligence leak.* `https://www.bellingcat.com/news/2023/04/09/from-discord-to-4chan-the-improbable-journey-of-a-us-defence-leak/`.

United States Department of Justice. September 2024. *Justice Department Disrupts Covert Russian Government-Sponsored Foreign Malign Influence Operation.* Accessed: 2024-09-17. `https://www.justice.gov/opa/pr/justice-department-disrupts-covert-russian-government-sponsored-foreign-malign-influence`.

United States. Office of the Director of National Intelligence. 2017. *Assessing Russian Activities and Intentions in Recent US Elections.* Intelligence community assessment. Office of the Director of National Intelligence, National Intelligence Council. `https://www.govinfo.gov/app/details/GOVPUB-PREX28-PURL-gpo76345`.

Watling, Jack, Oleksandr V Danylyuk, and Nick Reynolds. March 2023. "Preliminary Lessons from Russia's Unconventional Operations During the Russo-Ukrainian War, February 2022–February 2023". *Royal United Services Institute for Defence and Security Studies* (). `https://www.rusi.org/explore-our-research/publications/special-resources/preliminary-lessons-russias-unconventional-operations-during-russo-ukrainian-war-february-2022`.

———. February 2024. "The Threat from Russia's Unconventional Warfare Beyond Ukraine, 2022–24". Accessed: 2024-02-20. `https://rusi.org/explore-our-research/publications/special-resources/threat-russias-unconventional-warfare-beyond-ukraine-2022-24`.

Yablokov, Ilya. 2018. "Conspiracy Theories in Post-Soviet Russia". *Conspiracy Theories and the People Who Believe Them.*

Yang, Kai-Cheng, Emilio Ferrara, and Filippo Menczer. 2022. "Botometer 101: social bot practicum for computational social scientists". *Journal of Computational Social Science* 5 (2): 1511–1528. `https://doi.org/10.1007/s42001-022-00177-5`.

Zeng, Jing, and Mike S. Schäfer. 2021. "Conceptualizing "Dark Platforms". Covid-19-Related Conspiracy Theories on 8kun and Gab". *Digital Journalism* 9 (9): 1321–1343. `https://doi.org/10.1080/21670811.2021.1938165`. eprint: `https://doi.org/10.1080/21670811.2021.1938165`. `https://doi.org/10.1080/21670811.2021.1938165`.

Appendices

A Tweets Used to Collect User Identifiers

The following tweets were used to collect identifiers for users that were believed to be supportive of Russia's invasion of Ukraine. The table contains each tweet's plaintext with emojis removed and images in URL form. To view any tweet on the live platform users can navigate to `https://twitter.com/mfa_russia/status/id` and replace `id` with the corresponding tweet identifier. There is no requirement to alter the account name associated with the tweet.

Id	Text
1515217830618316806	Serious allegations: #OSCE helped Kiev and Nazi battalions. 'The OSCE staff turned out to be a vulgar reconnaissance feeders' - investigation by war correspondent Alexander Sladkov. https://t.co/DZwVFZ4rN2... English subs : https://t.co/zIGZbPOij7 https://t.co/1yBBogDFps
1515986487459913729	https://t.co/oBLpiBSbJf
1508036579792719872	#Opinion by María Zakharova: We can get a rough idea of the US political elites' involvement in the military biological activity in #Ukraine if we rely on open sources as well as leaked documents, including via @wikileaks. Facts & Timeline https://t.co/s2z2wOG3mo https://t.co/RKaDakgKbj

Id	Text
1505840137741213698	Maryana Naumova's response to @Schwarzenegger Please, find and reread the letters, that the children of #Donbass wrote to you back in 2015. I invite you to see everything with your own eyes. Don't side with Skynet, Terminator! In full: https://t.co/CWe4D9nTsO https://t.co/eggULaadTE
1508818102531809280	#Zakharova: #Latvia has long had a tarnished reputation as a country where attempts are being made at the highest level to glorify Nazism and falsify history. With their vicious revanchist restrictions, the Latvian authorities insult the memory of the victims of #WWII. https://t.co/Ht3wiDDffW
1508812955818807306	#Zakharova: The EU document in the field of security & defence declares a course towards increasing confrontation with Russia, whose actions are declared "a long-term and direct threat to European security." We call on the EU to abandon its confrontational approach. https://t.co/3ArKYNO2cW
1504087251009081348	**Уважаемые соотечественники! О случаях нарушения прав, дискриминации и разжигания ненависти по отношению к гражданам Российской Федерации и носителям русского языка просим сообщать в консульский отдел посольства по электронной почте** consdepfin@yandex.ru https://t.co/RTlsHBOxt3

Continued on next page

Id	Text
1509041825289580547	Russian Permanent Representative to the UN Vassily #Nebenzia: Ukrainian nationalists do not hesitate to use most elaborate tortures and executions. This list of problems caused by Kiev is expanding. https://t.co/bdhlNRRSE3 https://t.co/XHACoOCO07
1508999988155662338	Anatoly #Antonov: Such a statement is another attempt to transfer Russophobic rhetoric to multilateral platforms. On February 18 at the Munich Conference, President of Ukraine Volodymyr Zelenskyy openly stated that Ukraine seeks to regain access to nuclear weapons. https://t.co/rgW9yfM9Vm https://t.co/thnd9JtfGP
1508788364065050634	#Zakharova: Shocking video footage of Ukrainian militants' atrocities circled the world recently, showing them beating Russian POWs, shooting them in the legs, leaving them without medical care. All these war crimes are recorded & the perpetrators will be held accountable. https://t.co/6AWgiM6j1Z
1508884760009056268	There are video clips on the internet showing how fighters from the Armed Forces of Ukraine (AFU) humiliate Russian POWs and they record their murder. What do the defenders of human rights in the Council of Europe and the @OSCE ODIHR say about this? https://t.co/zP1M4x8hVw https://t.co/XgzY1Glezk

Id	Text
1509088228112232451	Russian Defence Ministry: The #Kiev regime uses places of worship (including synagogues) and any other places of public worship as collection and transfer points for weapons and Nazi militants to take part in hostilities. @mod_russia https://t.co/l3IFCvpMWC https://t.co/I7IomyOi71
1509052517031809026	Russian Permanent Representative to the UN Vassily #Nebenzia: Washington and its allies have a choice now They can choose to stop fueling Ukrainian crisis, delivering weapons to the Kiev regime, and provoking a global food crisis and hunger in a number of states. https://t.co/q9wriZ4wLG
1509104536014958593	The truth always finds its way out. It is the Ukrainian troops who are the enemies of Ukrainian civilians The Russian Armed Forces do not attack civilian infrastructure. They provide to Ukrainian people humanitarian aid which is much-needed today https://t.co/onDfGyp1Y9 https://t.co/QkGDfPnfZi
1508796119425376270	#Zakharova: A monument to Soviet liberator soldiers in Chrzowice, Poland, has been dismantled. This is another manifestation of the shameful war against Soviet monuments Poland has been waging in violation of every existing bilateral agreement and all civilised norms. https://t.co/MtImkYq72R

Id	Text
1509192409502134285	"They are hiding behind civilians... shoot in the back..." Residents of #Mariupol - those who managed to escape the clutches of the Neo-Nazis - tell the TRUTH about the atrocities of the infamous Neo-Nazi "Azov" Battalion. What the MSM will never show or tell. #See4Yourself https://t.co/CLWoiUo4uu
1509192531497693187	representative at @UN_HRC: Atrocities against Ukrainian civilians are carried out by nationalists using weapons supplied by Western countries We call on the @mbachelet and the #OHCHR to assess these facts full statement (/): https://t.co/FciuIR2XU3 https://t.co/9Jes5ugHEO
1509340091109543937	#Antonov: @UnderSecStateP deliberately overestimates the number of losses of the Armed Forces in #Ukraine. Behind such statements lies a cynical intention to cause public discontent in our country. It won't work. https://t.co/WJQyv76qfn https://t.co/E4F9qbHcR5 https://t.co/cDZXzLiScZ
1509567483455410182	That #OOPS moment when the truth comes out... even on the MSM. On air. The unexpected reveal of "innocent patients" with assault rifles showcased how the Ukrainian military uses ambulances. That same modus operandi involves exploiting civilians and using them as human shields. https://t.co/QEbaFG5Gzu
1509546574665424909	The document is the partnership agreement on implementation of UP-1 biological project https://t.co/gwubTSsy3G https://t.co/dxToks3jsw

Id	Text
1509537281375449097	Из брифинга по результатам анализа документов, касающихся военно-биологической деятельности США на территории Украины https://t.co/yyDxbVw1zK https://t.co/kkax4UMqrw
1509534873475854336	Брифинг по результатам анализа документов, касающихся военно-биологической деятельности США на территории Украины https://t.co/jstW8ET5AQ https://t.co/Lp5x3WI3nv
1509644094603243521	@GGatilov at the Conference on Disarmament: The US used Ukrainian territory and its population for dangerous research – the one Washington does not wish to conduct on its own territory, so as not to expose population to the risks full statement: https://t.co/JUxjm3qIl9 https://t.co/MiJmDNxZnj
1509538673074835465	representative's right of reply at @UN_HRC: Here are publicly available quotes of explicit hate speech from Ukrainian politicians and public figures They are also the ones being supplied with lethal weapons by the West full statement (/): https://t.co/aT2WpzZJao https://t.co/SUEjEWFJYg
1509537971099287555	The document dated December, 15, 2021 presents a response to request from Ukrainian Motor Sich company to the Turkish drone manufacturer Baykar Makina https://t.co/QjC5fStrbi https://t.co/HUHVNN14iA

Id	Text
1510003384102830084	#Polyanskiy: On initiative, UNSC discussed the issue [ofbiolabs in]twice. We have circulated documented evidence received by @mod_russia as official SC & GA docs. There'll be another letter today. I recommend everyone to scrutinize these materials. https://t.co/29XXjofIim https://t.co/ozinLdyyHY
1510214524187680768	Neo-Nazis from Azov Regiment were bringing boxes, allegedly with explosives and detonators, into the building before the explosion of the Drama Theater in #Mariupol - testimony of a refugee from the city, former police operative. https://t.co/FbrQuXuZ9t https://t.co/lpmkYgohhk
1510236700072906753	The baseless Western allegations of "horrific invasion" and "disinformation" have nothing to do with reality. The army doesn't strike at civilians in #Ukraine but provides them with #HumanitarianAid. Well, one sees the speck in another's eye and ignores the log in his own. https://t.co/FfYyeDfhrv
1510278355899277316	#Zakharova: A few bloggers have reported today that @CHANEL brand stores abroad are refusing to sell their products to Russian nationals Those running the legacy of the "great Coco" have found a way to join the Russophobic campaign https://t.co/it3glvcGjx #TruthAboutChanel https://t.co/kZNJhW3sQJ

Continued on next page

Id	Text
1510012837237825545	You remember Marianna? Here's the part of her interview, in which she confirmes: military did occupy the Mariupol maternity hospital #3 (#humanshields) they provided no help, and even took their food there were no airstrikes A cameraman was on-site on March 9 https://t.co/Qdv4uYmkHA
1510321637547298818	K.#Gavrilov: "Against this background, the whole world is watching how the #USA and its allies are "pumping" #Ukraine with lethal weapons. The risks of subsequent illegal "spread" of small arms and ammunition to other regions are visible to the naked eye." https://t.co/GsOTEzQBPG
1510598176264364033	#Lukashevich: Ukrainian citizens are in urgent need of humanitarian assistance, but the United States and other NATO countries are increasing supplies to Ukraine not of peaceful cargo, but of weapons of all types and ammunition https://t.co/TjfFxu438c
1510599565463986177	#Лукашевич: Украинские националисты продолжают удерживать в заложниках в качестве «живого щита» свыше 4,5 млн. граждан в Киеве, Харькове, Чернигове, Сумах, Мариуполе и более чем в двух десятках других крупных населенных пунктов, https://t.co/1reMsXYaVF

Id	Text
1510648066403143683	Official Statement by @mod_russia All the photos and videos published by the Kiev regime in Bucha are just another provocation. Facts https://t.co/L91uGBs4r5 This confirms conclusively this is another #hoax by the Kiev regime for the Western media. https://t.co/VO3umSNwkE
1510662169167290371	@mod_russia: During the time Bucha had been under the control of the Russian Armed forces, NOT A SINGLE local resident has suffered from any violent action. Moreover, Russian servicemen have distributed 452 t of humanitarian aid to civilians. https://t.co/KTqU7uMQJY https://t.co/7Gx5SIbheq
1510669717350064134	Your daily #Fakes pushed by the Western media Russian troops committed atrocities in Bucha The @mod_russia and the city's mayor confirmed that the troops left the city on March 30. It's yet another provocation in order to stir emotions and call for more weapons https://t.co/28KCcHOLED
1510649349482635265	Russian Defence Ministry denies accusations of Kiev regime of allegedly killing civilians in Bucha, Kiev Region https://t.co/gfDdjWSYPE
1510906028589821953	#OTD in 1949 @NATO was formed. In the early 1990s we were promised NO eastward expansion. Yet, by 2022... 5 waves of enlargement, 14 new member states, bases & military infrastructure right on Russia's borders. "Defensive", they say. Yugoslavia, Libya, Iraq, Afghanistan... https://t.co/GoQqjAwFBv

Id	Text
1510927461718138887	#Lukashevich: Awareness of the presence and role of neo-Nazi groups in seems to be gradually starting to make its way in the West. The materials of @cnni & @washingtonpost directly point to the radical orientation of the Azov battalion, which reincarnates the Nazi ideology https://t.co/D2F7IHrMVl
1510949852179542017	#Facts @NATO claims to be a "defensive" alliance & points a finger at Russia. Meanwhile, its military spending exceeds Russia's times, constituting % of global spending. And the "Russian threat" is a good excuse to continue the buildup (% in 2021). https://t.co/4vB3Syo1nu
1510929909803274240	@mod_russia dismissed allegations on "Russian atrocities in Bucha". military left city on March30. It was confirmed by city's mayor, who didn't report on atrocities. Allegations first appeared only on 4day. Bodies shown seem surprisingly "fresh", couldn't lying for 4 days. https://t.co/P3PepLuM3L
1511019383858122756	The virus of Nazism is rampant in today's #Ukraine. Who is responsible for the thousands of young people roaming Ukrainian cities, doing the Nazi salute and shouting "heil"? Watch the documentary (2021) by Arkady #Mamontov to find out In full: https://t.co/2zJEtLwxyK https://t.co/19urWgDyRO

Id	Text
1511052229683269633	Russian MFA Spokeswoman Maria #Zakharova: Who is the master of provocation? The #US & @NATO, of course. The very fact that these statements came in a matter of minutes after materials surfaced leaves no doubt as to who was behind this whole story https://t.co/8Kj9vuUAvM https://t.co/SXRFS07FmI
1511065556606238722	#DebunkingFakes Read Waronfakes website's article "Global lies over Bucha: How people's minds are manipulated" https://t.co/1vJx1gncCR
1511177738266292229	We call on Washington to stop pumping #Ukraine with lethal weapons. It is the United States that provokes more and more victims. @UnderSecT https://t.co/TndLiBf5Cf https://t.co/FzEgntWa4Z https://t.co/YgG0QmPuVj
1511423761744019456	On April 5, @Twitter resorted to a blatant act of censorship by concealing a post on @mfa_russia behind a warning that it violates the platform's rules. We demand that @Twitter immediately restore access to this post. https://t.co/AhFAdvXWvB https://t.co/U85gUf8zMk
1511423179880902656	On April 3, 2022 Icelandic media were fast enough to circulate another fake of the Kiev regime with accusing Russian military of mass killings of civilians in Bucha, Kiev region. For those who want to try figuring out what is happening in reality: https://t.co/AXv49DDdOZ https://t.co/QFqZqBM8RV

Id	Text
1511720974957392064	#Polyanskiy: The US carries out military #biological activities outside the national territory in many countries & regions across. #Ukraine is just one of the examples. These activities lack transparency asrefuses to provide any information about them. https://t.co/4gJ19ZBU2w https://t.co/Dq9OxSGPd8
1511735174387613698	#Zakharova: The Museum of Modern History of Russia opened the exhibition NATO: A History of Cruelty. We invite those who still believe that "NATO is a defensive alliance" to see documentary evidence of the so-called defence. https://t.co/SdxuNfQm6b https://t.co/78OH7G8lFp
1511954545479405571	Arria-formula meeting of the @UN Security Council hosted by Russia. The meeting allowed for an open exchange on the challenges posed by the military biological activities that can lead to devastating consequences for intl. peace & security. https://t.co/46Z26kKaZj https://t.co/t7CeZ0zYt7
1512007275673755648	**Несколько артефактов, подтверждающих, что наше дело правое. Город Изюм. Фотографии сделаны на бывших позициях оборонявшихся украинских националистов.** https://t.co/mLIOjRLJEe

Id	Text
1512022382092898306	«Украинские военные в больнице прикрывались мирными жителями, женщинами. Заходили в палаты, называли скотами» Жители Мариуполя, эвакуированные из подвалов городской больницы, рассказывают о бесчеловечном отношении боевиков нацбатальонов. https://t.co/eQZBg650Qr
1512159243134242821	Russian MFA Spokeswoman Maria #Zakharova on the situation in #Ukraine: I am accusing Western and primarily the US media of not only spreading #fakenews and disinformation, but of being an accomplice in the massacre in Bucha. The truth will always prevail. https://t.co/tchimy0lWi
1512369890581172230	Russian Defence Ministry denies statements made by Kiev regime about an alleged missile attack on the railway station in Kramatorsk, Donetsk Region https://t.co/JgX0fpS1M9 https://t.co/L5f8zO6Ai1
1512531134608932869	On April 8, the Ukrainian Armed Forces (UAF) committed another #WarCrime by striking a railway station in Kramatorsk. The choice of the target was not random – the Kiev regime is striving to maximise the number of civilian victims. https://t.co/iIYsIkmwdb https://t.co/NcYw7vXkZd
1512834402862215178	We demand that top #EU officials stop their hypocritical anti-Russian hysteria and abandon the cynical tactic of covering up obvious crimes of their protegés from #Kiev https://t.co/9eiLTuNKl1

Id	Text
1512834399095689223	Photos and videoclips available on Internet, including geo-referenced pictures of the missile that fell in #Kramatorsk, enable any user with a basic understanding of physics to be convinced that it could have come exclusively from a sector controlled by the Ukrainian armed forces https://t.co/jytGHKZhx9
1512803653001830405	Russia's Ambassador to the US Anatoly #Antonov: The Russian Side finds efforts of the @NATO members to "militarily explore" the territories of Ukraine and Georgia and establish a network of US biolabs along our borders totally unacceptable! https://t.co/YeaJVhLqy8
1512722273584750600	#Lukashevich: We call on OSCE pS to stop neglecting their international obligations and to finally start practically countering Russophobic hysteria https://t.co/RC8yOcpDXf
1512548157758087172	Your daily #Fakes pushed by the Western media Russia used a "Tochka-U" missile on #Kramatorsk to cause civilian casualties As reconfirmed by @mod_russia, time and again, has no "Tochka-U" missiles in its arsenal More #Food4Thought in the video https://t.co/wo5AwH3RoS
1512488541455990787	#Lukashevich: Canada, USA, «collective» Brussels and EU member states foment unprecedented Russophobic sentiments, condone Russophobic actions, ignore hate speech in all public and social strata https://t.co/kAaIwFZNMG

Continued on next page

Id	Text
1513275213009543169	UNESCO mandateIn Ternopol () the monument to A.Pushkin has been demolished. The mayor of the city, Sergei Nadal, said that "everything Russian needs to be dismantled. Including a monument to the Russian writer". Will @UNESCO react? https://t.co/Nu2pwCaCm0
1512882146943324162	The more details on the April 8 tragedy in Kramatorsk emerge, the more evident it becomes that military was behind this incident The "Tochka-U" missiles from Kramatorsk (9 79-1 91579) and the one the troops fired on Alchevsk in 2015 (9M79-1 91565) are from the same batch https://t.co/thrTutVmOc
1512763825052921867	President @ZelenskyyUa tells a #Bild reporter about a "leading European politician", who dared to ask him for proof that the "Bucha massacre" isn't a hoax Good to know that there are still politicians left, who don't have their critical thinking totally suspended https://t.co/MwaWzFkeIq
1513570991288557570	New staged provocations to accuse Armed Forces of allegedly abusing population are being prepared by the Kiev regime under the guidance of British intelligence services in #Sumy region. Read @mod_russia statement: https://t.co/fy4w6vdt0a https://t.co/RDCHnObEkY

Id	Text
1513682506242998272	Today we indeed presented in #SecurityCouncil iron-clad evidence that #KramatorskMassacre was a Ukrainian false-flag operation. Its perpetrators and those who covered them by spreading #FakeNews should be prosecuted. https://t.co/WzIQpdtFAO
1513590865758937091	#Polyanskiy: The provocation in #Kramatorsk failed. But Ukrainian #propaganda experts will surely try to learn their lesson and work better next time. Lately we have informed the #UnitedNations of provocations that they are working on in Ragovka, Kremyannaya, Bilogorovka, Irpen. https://t.co/NFYEIS9nCF
1513590202635280387	#Polyanskiy: Western and Ukrainian fake factory has stepped up to a new level & got down to fabrications in the best traditions of notorious #WhiteHelmets. Unprecedentedly cruel and "crude" provocation in the town of #Bucha is still on everyone's lips. https://t.co/j9KfGiYLPQ https://t.co/6V1HhHhJO6
1513814038102388742	#FunFact Only two countries vote against the annual "Combating glorification of Nazism" resolution at the #UNGA The 1st one is . The US believes that hateful and racist ideologies are part of "freedom of speech" Can you guess the 2nd country that votes ? https://t.co/3daMjwMYFM

Id	Text
1513948246992957450	A clip on how human emotions are being exploited to cripple critical thinking and clear judgment. "His face says it all" = look, don't think The video also features a reporter Thomas Röper's story from Volnovakha, on how his own photos were used to suit the "narrative" https://t.co/nVr2PlJMMm
1514009321868247045	President Vladimir #Putin: What is happening in Ukraine is a tragedy, no doubt about that. As President Lukashenko put it - we were left without a choice. There was simply no choice. There was only a question of time – when it will start. This is all. https://t.co/idOxIMcjnC https://t.co/iSX5tWO37p
1513995733564903425	#Zakharova: We have been saying for the past 8 years that the West is training Ukrainian nationalists. Canada alone has spent $1 billion on training the Ukrainian military since 2014. How much of these funds went to neo-Nazis? It's anybody's guess. https://t.co/XyE871gcgA https://t.co/liZdUcl5nS
1514178904734547968	The "peaceful" EU has pledged to increase military aid to Kiev to 1.5 bn. euros. The EU's hypocrisy is boundless: assistance to Ukrainian nationalists, who will use it to kill civilians with impunity, is being provided via Europe Peace Foundation. https://t.co/jQujcUgrj2 https://t.co/XNYwCJ2zuD

Continued on next page

Id	Text
1514261190297493504	#Zakharova: To divert attention from their crimes, Kiev uses fakes, trying to showcase the alleged brutal treatment of the Russian military with the civilian population. Instead of sending forensic experts to Bucha, they landed hoards of journalists & European politicians there https://t.co/bPCcBENqqd
1514261028183453700	#Zakharova: We have to make note of the toxic, Russophobic atmosphere in the #OSCE, whipped up by the Organisation's officials led by the Polish Chairship. Nevertheless, we will continue to draw Vienna's attention to truthful information about what is happening in Ukraine https://t.co/3Sk1rOge9h
1514268989672898566	#Zakharova: The bloody practices of British colonialism, hidden behind the liberal empire myth, still await research and, possibly, trial. We suggest all supporters of the British "liberalism" tradition reading this carefully https://t.co/4fROMTBzPy https://t.co/u9VFoaiteJ
1514313578555363330	#Zakharova: @JosepBorrellF's statements confirm that the EU has finally renounced peacekeeping ideals. It is degenerating into a militarized & aggressive instrument of external expansion. Such "diplomacy" runs counter to the interests of the inhabitants of European countries. https://t.co/biZNkBTRiW

Id	Text
1514275682351726593	#Zakharova: We regret that anti-Russian campaign unleashed in the United States has affected our countries' common historical heritage. The Russian Fort Elizabeth in the state of Hawaii (Kauai), built in 1816, got caught in the crossfire. It will be now known as Paulaula. https://t.co/eBhEuw4xEV
1514493638788661248	The military can't help but include neo-Nazi symbols in its ads Be it intentional or out of ignorance - the fact is still alarming, as not only the #Azov nationalistic battalion has certain "image problems" A clip on where the "Black Sun" came from and why neo-Nazis it https://t.co/Zu6fC9Es7u
1514592477918945294	#Gavrilov: The nationalists make no secret of the fact that a "mutually beneficial symbiosis of the super-rich and neo-Nazi gangs has formed in the country and spread their ideology in all directions: from schools and universities to the high command of the armed forces." https://t.co/rlLlGv5wPS
1514695304913866762	From the @mod_russia briefing: During the special operation in #Ukraine, it was established that US scientists were testing potentially dangerous biological drugs on patients of psychiatric hospital No 3 in #Kharkov between 2019 and 2021. More: https://t.co/mcjMDR7CKw https://t.co/SJfqiZ5NuZ

Id	Text
1514706733775605769	#Polyanskiy: It's easier for the West to accuse rather than admit their responsibility for volatility of global #finance, #food, #energy markets. This situation resulted from excessive subsidizing of Western economies, trade wars, protectionism, illegal unilateral #sanctions. https://t.co/d44FDDFYPb
1514490546415083525	Some people think that the #US pumps Kiev regime with weapons (thus prolonging the conflict) to protect democracy. Well, let's have a look at a fewmilitary companies' stock performance since the beginning of the conflict. Some die at the battlegrounds, some make profits of it https://t.co/1F43G4ywCe
1515271074652504069	#Zakharova to @RT_com: According to confirmed reports, Germany closely coordinated its work on biological security with its US allies, who established a network of at least 30 biological laboratories in Ukraine. https://t.co/Gn4jHOm2yA https://t.co/X8Z6bLo1Z6
1515005221134610434	Playbook 1) Ignite a conflict 2) Pick a side and sell it weapons 3) If the parties refuse to fight, fan the until they do 4) Sell weapons to the spectators "so this doesn't happen to them" 5) Nothing is free - cash, credit or sovereignty accepted ???? 6) Profit! https://t.co/SzLBfCCWIW

Id	Text
1514982098444115968	Minister of Internal Affairs Denis Monastyrskiy presented the toy from #Kramatorsk to Crisis Coordinator for Ukraine Amin Awad It is unclear - how the toy can be of use to Mr.Awad It would be more helpful, however, to present Mr.Awad with the "Tochka-U" serial number https://t.co/hsrUxR4kZr
1515377535261061129	Russian MFA Spokeswoman Maria #Zakharova: On April 13, 2014 the Kiev regime began a civil war against Donbass civilians who refused to accept the anti-constitutional coup by neo-Nazis. For 8 years we have been witnessing Kiev's war crimes and the West's indifference. https://t.co/3S35vDs1ye
1516049597281546246	While awaiting a response from @BorisJohnson on his future, UK national Aiden Aslin (aka @cossackgundi) also speaks about his neo-Nazi "comrades" from Azov It's no surprise that they were abducting and torturing civilians, not to mention using them as "human shield" https://t.co/KOmLRosbX7
1515686215214931969	Here's how the Western mainstream media and politicians whitewash neo-Nazi #Azov Battalion, that has committed countless atrocities and crimes, targeting & killing civilians. From terrorists to "patriots" in the eye of the MSM. @RT_com #Think4Yourself https://t.co/25PboPNSSX
1516077929297502216	According to @mod_russia, #Ukraine is preparing new provocations in order to accuse #Russia of alleged war crimes. https://t.co/3VSq6fCYbZ

Id	Text
1516077441390891012	Commentary of the Russian Embassy in Latvia https://t.co/HPOp3Sii1c #Riga #Latvia #USA #Russia #RussianEmbassy https://t.co/abvLroFCk4
1516361681508700165	Prohibited anti-personnel mines MON-50 and MON-90 that #Ukraine swore it didn't have were found at the liberated Ilyich Iron and Steel Works of #Mariupol. Read the statement of the Russian delegation: https://t.co/nbMSSMPi3s https://t.co/DxFTmPBzTR
1514254220794470407	**#Захарова: 8 лет назад под видом АТО началась гражданская война киевского режима против мирных жителей Донбасса, отказавшихся принять антиконституционный госпереворот. Всё это время мы являемся свидетелями военных преступлений Киева и равнодушия Запада к трагедии Донбасса.** https://t.co/cBvygmufi0
1516510295988047879	#Polyanskiy at UNSC media stakeout: Concerns about #Washington's military biologicalactivities are aggravated by the fact that, contrary to its international obligations, the US has retained norms in its national legislation that allow for the military #biological research. https://t.co/8lPnKrwcpF

Id	Text
1516551963625897985	#Polyanskiy: The way our Western colleagues care for #Ukraine & Ukrainians is full of egoism and opportunistic considerations. You only need them as "cannon fodder" in your proxy war against that should proceed "to the very last Ukrainian". You never dismiss your self-interest. https://t.co/bEM3jxHWxe
1516551463044005888	#Polyanskiy: In Western "picture of the world", #Ukraine is an innocent white lamb. However, the 8 years of #Kiev regime's war on the peaceful population of Eastern Ukraine, as well as lasting sabotage of the #MinskAgreements do not fit into this picture. https://t.co/vnoCrFgKJX https://t.co/lkQvi2wh9A
1516776658837061634	#Zakharova: Russia's Investigative Committee, in cooperation with the International Public Tribunal on Ukraine, is gathering information on the Kiev regime's crimes. Not a single Ukrainian nationalist involved in these crimes will be able to avoid justice. https://t.co/CMFcIJXr9d
1516732068301971456	FM #Lavrov: West ignores facts on army & nationalists with Nazi insignia using civilians as human shields, placing heavy weapons in middle of towns, next to schools, kindergartens & hospitals. Despite testimonies of people from these places who asked forces not to do so. https://t.co/tbwniamyfa

Id	Text
1516793016329158668	#Zakharova: We have taken note of a comment by Finnish television network Yle correspondent @Sortamo. He resorted to rigging, drawing comparisons between what happened in Bucha, Ukraine, and the 1999 Račak massacre in Yugoslavia. https://t.co/G5Z89aF5v3
1516790895496024066	#Zakharova: In late March, @GOVUK said it will allocate more than 4 million pounds to the BBC World Service for the information war against Russia. BBC receives direct state funding for propaganda purposes. Time to change its name to "BBC by Foreign Office". https://t.co/QpZgl5Nhd8
1516806049206054919	#Zakharova: We note New Zealand's official decision to provide military assistance to the Kiev regime. This is yet another proof that Wellington is only pretending to be a "peaceful" Asia-Pacific nation while remaining a loyal satellite to London and Washington. https://t.co/xd3HolQr9q
1516808275903328257	#Zakharova: @AP published an article "exposing" Russian diplomats who use social networks to allegedly "undermine the international coalition supporting Ukraine." Even without Russian diplomats, this "coalition" is doing an excellent job in undermining itself. https://t.co/Kxl7pXZCfx

Id	Text
1517117468971524097	#Opinion by Maria Zakharova We urge the British authorities to treat the citizens of Ukraine "humanely and compassionately," as @BorisJohnson said, by stopping the delivery of weapons to Ukraine. https://t.co/PmIWCBEhLu https://t.co/gqoJgJujpk
1517043200946589696	If you have an independent and critical mind and want to have a comprehensive picture of events, subscribe to accounts labeled as "Russia state-affiliated media". In most cases they are not affiliated but provide alternative facts. Useful addition to other sources of information.
1517160521782468608	MFA Spokeswoman Maria Zakharova's response to @BorisJohnson: Don't worry, Russia is taking care of the captured British nationals Unlike the Ukrainian fighters who brutally kill prisoners and torture civilians full statement (): https://t.co/fWwmpAYdQc https://t.co/vUROpDTIoL
1517261083622268929	#Chumakov: First report of the Global Crisis Response Group on #Food, #Energy & #Finance lacks impartiality. It replicates one-sided narrative of Western countries who always see root causes of all problems elsewhere, elegantly putting aside their own role in many crises around https://t.co/dXbZzOAUuC

Id	Text
1517228846336073732	Heart of Kiev has barely been touched. Almost all long-range strikes were aimed at military targets. Russian military has actually been showing restraint in long-range attacks. Putin is not intentionally attacking civilians. More from @Newsweek: https://t.co/Mc7C2y7Mb2 https://t.co/b59g7XVCVW
1517453888454275072	"Age of Revelations: True Face of the West" Read new article by Russian Ambassador to South Africa H.E. Mr.Ilya Rogachev published in today's @pretorianews @CapeTimesSA & @TheMercurySA https://t.co/NVtnj3jsmj https://t.co/Dmqx0GrmEe #AlternativeViewpoint https://t.co/ovVxiTlSs3
1517479046271188996	A number of Western states continue to actively "stuff" Ukraine with heavy armament. The volume of military equipment exceeds dozens and hundreds units. Among them are howitzers, armored personnel carriers, helicopters, drones, etc. Embassy's comment: https://t.co/dDvQvxCHNr https://t.co/KMEBrRC4jb
1517529400245465089	The founder of the infamous Azov battalion Andrei Biletsky thinks that killing civilians during an "Immortal Regiment" parade (i.a. with a "Tochka-U" missile) would make for a "funny video" For those who dismiss the idea that nationalists can kill their own citizens - https://t.co/HdQIKDtw43

Continued on next page

Id	Text
1517575605948137474	#Lukashevich: Evidence of the atrocities of the Ukrainian armed groups against civilians is multiplying. Bodies of 26 dead civilian victims of shelling by the Ukrainian national battalion "Azov" were found in hospital No. 4 in Mariupol https://t.co/aGNz2dk5xZ
1517627522795675651	Ambassador Stepanov to @SputnikInt: We understand that on a philosophical level the denigration of Russia emanates not simply from the strategic need of propaganda and information warfare. It is deeply rooted in the farthest corner of the Western soul. https://t.co/NFRpUafHpB https://t.co/NfKvXCXzWt
1517800591447179264	@mod_russia possesses the information related to the preparation of provocations by the #USA in order to accuse the Russian Armed Forces of using chemical, biological or tactical nuclear weapons. https://t.co/5C3DQf8W2C There are 3 scenarios to be applied https://t.co/wL88kZPa1Q
1517817919018872836	Briefing on a provocation against the Russian Federation prepared by the USA and NATO with the accusation of using nuclear, biological and chemical weapons https://t.co/Qc1IDdIKe4 https://t.co/tNOfVCDTpe
1517945230598848518	Ambassador Stepanov: Russia possesses credible information that the Western security services under the guidance of have been planning and preparing to stage a false-flag provocation in using chemical, biological or nuclear WMDs in order to impose responsibility on . https://t.co/td5Aa5ztdh https://t.co/VX1gYCPxx4

Continued on next page

Id	Text
1517932001633968129	Col. Gen. Mikhail #Mizintsev: According to reliable information, on the eve of the #Easter holiday, the #Kiev regime is preparing provocations to discredit the #Ukrainian #Orthodox Church of the #Moscow Patriarchate. Read more: https://t.co/J5mXsIOcAI https://t.co/wZfShhd2fG
1517869879302533120	The US is the only state that has used all 3 types of #WMD. The dropped nuclear bombs on #Hiroshima & #Nagasaki, the use of toxic chemicals in #Vietnam & #Iraq - all these crimes were not properly assessed by relevant international organizations. https://t.co/DE6H8jbkup https://t.co/9YODCM3Hwt
1517962014425075713	#Zakharova: The original #US plan was to step up economic pressure on Russia to make it reconsider its legitimate security interests. That didn't work. Now the US is going to use #WMD; in fact, this is a game that crosses the red line. https://t.co/HhrnY7YfTw https://t.co/TTjEW17USv
1517996260321595394	According to @mod_russia, #Ukraine is preparing new provocations in order to accuse #Russia. Full statement https://t.co/4ECrf39SJk https://t.co/3n5BjiZzxw
1523060585281343489	According to @mod_russia, #Ukraine is preparing new provocations in order to accuse #Russia. Full statement https://t.co/OBdlfSXEH8 https://t.co/tsLpMLwfXF

Id	Text
1522514895383764993	#Zaitsev: The EU is discussing parameters of the next portion of restrictions on Russian media operators & individual journalists. At the same time, representatives of the so-called advanced democracies continue to broadcast high ideals of media freedom & honest journalism https://t.co/dwSz0u1ywh
1521891380108292096	It is completely incomprehensible that Western countries pay no attention to the numerous war crimes committed by the #Kiev regime against both residents of the #Donetsk and #Lugansk people's republics and Ukrainian citizens in Kiev-controlled territories. https://t.co/6lejCdPFYa
1521418159873478658	#Lukashevich: Today is World Press Freedom Day.The significance of this day can hardly be overestimated. Under pretext of the crisis,the "collective West"is mounting the total cleansing of its information space from media,as well as media with an alternative point of view https://t.co/oNGoDYvl8k
1520871167720099840	years ago - on #May2 2014 - the Ukrainian Neo Nazis committed the #OdessaMassacre, burning dozens of people in Odessa. Justice still not served, perpetrators roam free. We will never forget this atrocious crime. We will work to identify and punish all those involved. https://t.co/zRdpAFWJEH

Id	Text
1521083195751604224	years ago - 42 "anti-Maidan" protesters perished in the #OdessaMassacre The Ukrainian radicals set the Trade Unions House on fire and cheered as people were burned alive Despite all available evidence, the Kiev regime made little to no effort to punish the culprits https://t.co/fwrnNkZERC
1520822655393439745	80 civilians forcibly detained by Ukrainian nationalists, were rescued from Azovstal in Mariupol. Units of the Russian Armed Forces and the people's militia of the Donetsk People's Republic opened humanitarian corridor for the safe evacuation of civilians. @mod_russia https://t.co/ph8Or9Q4Aj
1519990241939054592	#TheTruthAboutUkraine What are you chanting? Don't remain ignorant, learn more on Nazi collaborator's slogans, now used by politicians, repeated thoughtlessly. https://t.co/seD7yPgOPi
1521019921886494720	Many residents of are shocked by the boorish manners of some Ukrainian "refugees", as well as by the increasingly common Nazi symbols in the public space, including those of the "Azov" thugs. It is obvious that the local authorities create favorable conditions for this public. https://t.co/syFvFmfWlo

Id	Text
1520324769681448960	#Lukashevich: The shameful phenomenon of Russophobia has become an integral part of new reality in a number of OSCE pS. Everything related to is being enthusiastically eradicated,rights & freedoms of Russian/Russian-speaking population, incl. children, are flagrantly violated https://t.co/bn7l8CbIpL
1519770720011792384	#Lukashevich: Pentagon Chief L.Austin, noted that Washington "can hardly keep track" of what is happening with the weapons transferred to . But this does not stop from continuing pumping with weapons, which only delays the prospect of return to peaceful life https://t.co/CQZE9IzIx5
1528103285995016199	Western MSM readily spreads even the most idiotic Ukrainian fakes. The aim is to dehumanise the Russians. Many people in the West, judging by posts in social networks, buy such fakes w/o any attempt to assess them critically. The toughest & dirtiest information warfare in history https://t.co/4BJaCK3QCY
1527766664791883777	Russian envoy to UN #Nebenzia: The #West is literally holding the whole developing world as hostage, driving it towards famine. Why must counties and regions suffer from irresponsible geopolitical games of the West? #foodcrisis https://t.co/RCPXthKnPe

Id	Text
1527571082194173952	#Lukashevich: New details about Pentagon's experiments on Ukrainian citizens are being discovered - there's reason to believe that such experiments have become part of conscious policy of Washington and Kiev. Read more: https://t.co/7oTIUB7TC4 https://t.co/lJtFK2XgZF
1527530226288320513	#Opinion by Maria Zakharova There is no national consensus behind Stockholm's decision to join #NATO. The Swedish media conveniently did NOT publish any opinion polls in the run-up to the "historic decision", either. https://t.co/LEky0AWHKD https://t.co/W0fEPCiUbk
1526931072604418051	#Zakharova: There is hard data on the activities, carried out in the biolabs in #Ukraine with the support of the Pentagon, that violate the Biological Weapons Convention. 30 Ukrainian laboratories in 14 settlements were engaged in military biological activity. https://t.co/FX9MDd3buC
1526916017544232963	#Zakharova: The West continues to provide the Kiev regime with lethal weaponry. We consider this a direct support of neo-Nazis & an intent to drag on hostilities to the max. We can't ignore that Western weapons are used to kill Russian servicemen & shell Russia's territory. https://t.co/tPqzZBcOOc

Id	Text
1526914481829433344	#Zakharova: The military leadership of #Ukraine forbids the troops to retreat & surrender. Their main task is maximum destruction of civilian infrastructure. We see no response from the international organizations & Western countries in reaction to these criminal methods. https://t.co/NLZ0vsyhC9
1525668519534288896	I have no doubt that our Western partners will try to downplay the fact that #Azov Nazis and #Buffalo shooter share the same ideology. This awkward fact doesn't fit in their narrative that there are no Nazis in #Ukraine #NaziUkraine https://t.co/hFqwKt2Jly
1525256601120444416	Proof of war crimes or another fake? A detailed analysis of the high-profile CNN report #See4Yourself & #Think4Yourself https://t.co/7aGCb5Dewl
1528655820757647360	#WeRemember #NeverForget The liberation of the Soviet Ukraine was a massive effort of the entire nation - over 3 mln Red Army soldiers and officers gave their lives to free their brethren. Today in Ukraine the Nazis and their fascist nationalist minions are hailed as "heroes". https://t.co/HRIutOipsl
1529019940388356097	Testimonies of the residents of Mariupol will hardly ever be published in Western mainstream media. Yet, the world must know the truth. They tell about the inhumane tactics of Ukrainian forces & the atrocities of the #Azov neo-Nazis. #See4Yourself & #Think4Yourself https://t.co/n0cb9bBHYv

Id	Text
1528842621191348232	#Nebenzia: Russophobic #information campaign targets different areas, i.a. those that have nothing to do with politics – #education, #culture, #sports. It constitutes a gross violation of a fundamental principle of unacceptability of ethnicity-based #discrimination. https://t.co/B3HHN0Amhn
1527686905047003136	#Lukashevich: We categorically reject @OSCE_RFoM criticism of Russia as unfounded and one-sided - when assessing media landscape in our country one cannot fail to mention that a large-scale information war has been unleashed against it https://t.co/gVwv4dyrbQ
1524826497395175425	Supporting aggressive nationalism, condoning manifestations of neo-Nazism in #Ukraine & Russophobia are already costly for Kiev's foreign sponsors.The price of turning the country into "anti-Russia" will only increase https://t.co/IinPG0aBs4
1529238776379236353	Russian #journalists and Media know firsthand what freedom of media is in Western style. Leading media were either shut down or put under #sanctions in the #EU and #US. Their main goal is to exclude any nonconformity and undesirable facts. https://t.co/tevaFnLKYH https://t.co/Hc4rPOFFEK

Id	Text
1528886692924506117	Does he exaggerate the reality? Indeed our Western partners want to control the information space in their countries while blocking alternative sources of information like RT and Sputnik. If you don't like them, defeat them in honest competition. Instead they simply block them. https://t.co/UJYxoAs7KB
1529448849848385542	#Zakharova: Warsaw may be devising plans for a "creeping expansion" into the neighbouring state. The link with Russia's special military operation is no more than a pretext. https://t.co/gz6yjDwbOh
1529432373896544256	#Zakharova: On May 25, a news conference on eyewitness evidence of the Kiev regime's war crimes will be held at the Rossiya Segodnya press centre. It will include a presentation of booklets containing irrefutable proof of the state policy of Nazism in Ukraine. https://t.co/UWAHgVSCSQ
1529918171574063121	@RusEmbUSA: The unprecedented campaign to slander the Armed Forces has not brought tangible results. Despite the flow of fakes, neither the regime nor its Western patrons could provide evidence of the alleged "atrocities" of the Russian army. https://t.co/zWVvJYaSlK https://t.co/9YHQBGP0R7
1530258673276268545	When Nazism Becomes the Norm. #NoToNazism #StopNaziUkraine @mfa_russia https://t.co/dTjZTqDIgv

Id	Text
1530224047476326402	Continued large-scale militarization of Ukraine by NATO led by #USA demonstrates that West needs endlessly simmering conflict in this territory adjacent to Russia. At the same time inhabitants of the country are considered as consumables https://t.co/XnJH1lHypg
1530222894072184832	Western rhetoric about "global food crisis" looks strange - grain from Ukraine, seems to be used by Western countries to replenish their own stocks - not to help countries in Asia and Africa that need food and are on verge of starvation https://t.co/duAVxa93Sb
1531552677049638914	We demand that discrimination against the Russian and Russian-speaking population be stopped. We will continue to seek its protection in accordance with the relevant conventions and international standards https://t.co/nw7Snq3Yd7
1531584045490085891	Film director Emir Kusturica on #NATO aggression against #Yugoslavia, when US & Europe supported extremists, separatists, bombed and killed thousands of civilians, calling them "collateral damage", carved-out entire regions of the country Now the West is ignoring #Nazi crimes https://t.co/5aYnSYYWsC

Id	Text
1530686102625034240	Russian Defence Ministry: According to information received from captured Ukrainian servicemen, nationalist militants are preparing another #provocation with the use of toxic substances in Sumy. Foreign journalists are already in Sumy to film. https://t.co/Nt7QastMI1 https://t.co/Hwv6G1Hde5
1532814040732401665	Due to the EU's ongoing insinuations that blame Russia for provoking a global food and energy crisis, we consider it necessary to provide detailed explanations on the state of affairs in this area. https://t.co/TuQRQ6KXFM https://t.co/uNfY6K8jN1
1533133988667305985	#Opinion by Maria Zakharova: Ex-MI6 chief Richard Dearlove's emails have come to light. He attributed these leaks to the Russians. Do I understand it right that the British can only find out the truth about their democracy from the Russians? https://t.co/nwMlAqgrIM https://t.co/67aCS092mQ
1532658525888970752	#Zakharova: The US authorities launched a massive campaign to cancel Russian culture. It is obvious to all rational people that such policy is absurd and doomed to fail. Make no mistake, Russia will respond to any unfriendly move taken by Washington. https://t.co/3CZWqPrQBY
1535729570594406401	Happy Russia Day! #WeAskedPolitely #RussiaDay #RussiaDay2022 #Russia1Love #WeAreRussia https://t.co/rTRWthn3QQ

Id	Text
1537015406728294404	#Zakharova: Much of the blame for the ongoing tragedy in Donbass lies with Western countries. The supply of weapons to Kiev leads to prolongation of hostilities, new casualties among the civilians, contributes to the formation & expansion of the "black market" for weapons. https://t.co/3TjZvKvVAE
1536369272779427842	#DebunkingMyths Myth: Russia is using energy supplies for political purposes. Fa ts: Unfounded allegations are part of the fact-twisting info warfare unleashed by the EU and the US, the latter seeking to increase its LNG exports. https://t.co/mjFJyyFYc1 #Think4Yourself https://t.co/Po61Bg9D28
1541528349302034432	Kinda strange footage of Interior Minister aide Geraschenko in Kremnetchug/Kremenchuk where a shopping mall - as Ukraine claims - was hit by a Russian <ballistic missile> Pay attention to the glass bottles on the shelves standing still and intact while concrete roof collapsed https://t.co/MX7D56ZE6b
1541484428932878343	Looks like we are dealing with a new #Bucha-style #Ukrainian provocation. One should wait for what our Ministry of Defence will say, but there are too many striking discrepancies already. Exactly what Kiev regime needs to keep focus of attention on #Ukraine before #NATOSummit https://t.co/1apOc8nAlx

Id	Text
1541728267983638529	Russian Defence Ministry: Russian Aerospace Forces performed high-precision air attack at hangars with armament & munitions delivered by the USA & Europe, located at the Kremenchug road machinery plant. Detonation of munitions caused a fire in a non-functioning shopping mall. https://t.co/Kp1C5c8S39
1553025598716510209	#Antifake #FrenchMedia The French media environment continues to be dominated by the picture of a parallel reality of Russia and its special military operation that is woven out of fake news and distorted facts. Read in full: https://t.co/xg2mZk6ijY https://t.co/KU7bl0x1sl
1553059955216977920	Another bloody provocation by forces in #DPR: Today, #Ukraine used #HIMARS MLRS to hit a detention facility in #Elenovka used for confinement of Ukrainian POWs. 53 dead, 75 injured. Is this the new way to say "glory to heroes"? #StopNaziUkraine https://t.co/EKOMhNc50C
1553014009259081728	#Lukashevich: Ukrainian Armed Forces shelled detention center in Yelenovka in the DPR as detained Ukrainian militants began to testify https://t.co/npOo8vfYgy
1552949776257323008	@mod_russia: US-made HIMARS MLRS struck a detention centre near Elenovka, where Ukrainian servicemen, including Azov Battalion Neo-Nazis, are being held. This provocation is designed to intimidate Ukrainian servicemen, prevent their surrender. https://t.co/u4BeXs7Utg https://t.co/UpZU6PfA8h

Id	Text
1553093117712162828	#Azov militants deserve execution, but death not by firing squad but by hanging, because they're not real soldiers. They deserve a humiliating death. A married couple from #Mariupol tell how they were shelled by forces from #Azovstal. #StopNaziUkraine https://t.co/jyQGEOJFYz
1553175676689211393	#Polyanskiy: With its own hands, the #West is creating a regional if not a global hub for illegal arms trafficking in the very center of #Europe. By doing so, it puts its population at risk – at the expense of its own taxpayers. https://t.co/iRdgyAuvlM https://t.co/kCI6zoDcFT
1554442458347487233	#Zakharova: We see manifestations of racism against Africans in Europe. How long will our Western "partners" continue to lecture everyone else, cancel culture of countries and nations while preserving their imperial thinking and neocolonial ambitions? https://t.co/piVyi6RNmn
1555203184569745410	Russian MoD unveils new data on military and biological activities of the US and its allies in Ukraine and elsewhere in light of new information. We are considering the possibility that the #USAID was involved in emergence of #COVID19 https://t.co/5tigUP3PWm https://t.co/ZpNa7fLLG1

Id	Text
1555232968196726789	@Amnesty confirms #Ukraine tactics violate international humanitarian law & endanger civilians. forces set up bases in residential areas, incl schools & hospitals; launch attacks from populated civilian areas – exactly what #Russia has been saying all along. #StopNaziUkraine https://t.co/eI2SUtcymo
1555239365319737348	MFA: There is a possibility that #USAID was involved in emergence of #COVID19. https://t.co/bpClcIDqfE
1555962879563669507	When a civilian is used for military purposes, it turns into a legitimate target for a precision strike. Ukraine continues to do it, but now even @amnesty can't handle it. Whenever MSM shows you photos of a destroyed school or hospital - always ask: "Who was inside?" https://t.co/OGisuPzkY2
1556561420594167809	It's remarkable how the Westerners are eager to tear their own kin to shreds just for voicing alternative viewpoints on the crisis. "It's not enough to obey the Big Brother. You must love him" Orwellian warnings becoming a reality as freedom of thought is being eradicated. https://t.co/7jPoYIcLhL
1556663484833828866	The easiest way to become a 'Russian propagandist' is to start publishing truth. Why are we not surprised that 'independent' and 'impartial' @thetimes is heading a disgusting bullying campaign against @amnesty. https://t.co/0xGIfbShhY https://t.co/Fwuedvwtnl

Continued on next page

Id	Text
1556490068671479808	It's high time for #Zelenskiy to make necessary conclusions and stop providing cannon fodder for NATO's proxy war with Russia https://t.co/xJErvjr5if
1557795767200501761	Finnish journalist Janus #Putkonen: The demonization against Russia coming from Western propaganda is very terrible thing, a very frightful thing. https://t.co/ZQL1UMyU7N
1559218312998952963	"I think for sure it was done by Ukrainian Forces. There is no other way" - journalist @SonjaEnde. She was among a group of foreign reporters who visited the detention facility near #Elenovka which was shelled by military whilst there were prisoners inside. #StopNaziUkraine https://t.co/l5pepA8Yab
1559451257953189889	President #Zelensky urged Europe to ban alltravelers going to EU. Regardless of their position on the conflict. Ban Russians just because they are Russians. This is pure racism & Nazism. "How can there be Nazism in Ukraine, when there is a Jewish President?", they keep asking https://t.co/OmRFKd0sK5
1559498861848182787	Russian Defence Minister Sergei #Shoigu at X Moscow Conference on International Security: #NATO has dropped its masks, the aggressive nature of the bloc has ceased to hide behind formations about the exclusively defensive orientation of coalition activities. https://t.co/14WIF3Pde5

Id	Text
1559277943205101568	@mod_russia: AFU is preparing large-scale provocations near #ZaporozhyeNPP - up to 1000 servicemen in #Nikopol with special protective kits, radiation reconnaissance & control gear. This poses real threat to #nuclearsecurity not only of but of Europe. https://t.co/19tyGY7uTm https://t.co/ePHU2eJLVj
1560196907108024320	EU court dismisses RT France appeal to end broadcast ban The West has once again proved that human rights and freedom of speech end where its geopolitical interests begin. We expect a strong @UNESCO's response to this unfair decision https://t.co/s5pEasDRJn
1560181625320886275	Yet another wide-spread fake:"Russia uses #ZNPP as a nuclear shield". In fact there are no Russian heavy weapons deployed at or in the vicinity of the plant. The #IAEA mission, when it hopefully visits the ZNPP, will be able to refute the lies. https://t.co/iRY0A5S3zU
1560353809725067266	Defence Minister #Shoigu: #UK's colonial experience as the main sponsor of the Kiev regime has come in very handy for London in dealing with the current #Ukraine leadership. https://t.co/bf6dDGAUuX
1560312955731861505	Chargé d'Affaires a.i. Alexander #Gusarov: Recent @YouTube actions are another display of the West's #cancelculture policy, when Western #media space is blacked out by removing all the views which do not fit in the Procrustean bed of the West's conceptual agenda. https://t.co/5wRP1PTFdB

Id	Text
1560966070541983746	Russian Defence Minister Sergei #Shoigu: The missile strike launched by the #Ukrain|ian military against a detention centre in #Elenovka with captured fighters of #Azov terrorist battalion is an attempt to hide the truth about the crimes committed by militants. https://t.co/EocJjfvyU6
1570968766489694209	Ambassador Stepanov's comment to @SputnikInt: The reports of mass graves being discovered in #Izyum is another monstrous provocation by Kiev in a bid to repeat Bucha in a new way and mobilize the Western public amid the #UNGA next week https://t.co/yeq1I6dKHh
1571834642612817921	1st case of monkeypox was registered in Ukraine. In patient's own words, he didn't contact anyone affected by disease & he didn't travel abroad. So when & where did he manage to get monkeypox? Questions & concerns should arise as some US biolabs are still operational in Ukraine https://t.co/PJvlugjQ1v
1571825123371491331	Head ofPresidential office A.Ermak published a photo with graves ofcivilians in Izyum, putting the blame for their deaths ontroops. Look at the date of death – 9 March 2022. This indicates yet another fake ofpropaganda becausetroops entered Izyum WEEKS later https://t.co/kegaFyVVH3

Id	Text
1575461151831629824	#Zakharova: Zelensky regime is doing everything to turn Izyum into second Bucha by fabricating witness accounts of alleged crimes by @mod_russia The "good ol'" methods are put to use. Overwhelming inconsistencies make it impossible to re-create something akin even to Bucha https://t.co/gnbwkPLomK
1575202567218659329	The Donetsk and Lugansk People's Republics, Kherson and Zaporozhye regions held referendums on their accession to the Russia. The results speak for themselves – the residents of these regions made a conscious and free choice in favour of Russia. https://t.co/uV6CTDWbOu https://t.co/wOd0jGcdiu
1574460340884361216	It's an open secret. The UK is number one proponent of continuing NATO's proxy war in Ukraine until the last Ukrainian https://t.co/2SF937TQjr
1574357180882501633	FM #Lavrov at #UNGA77: #Russia firmly stands for a #democratic and just world free from blackmail & intimidation against the unwanted, free from neo-Nazism & neocolonialism. Together with our allies, partners and like-minded countries, we call for efforts to make this a reality. https://t.co/0UlRdqt4p0

Continued on next page

Id	Text
1582988705966751744	FM #Lavrov: Coup in Ukraine was carried out under Nazi slogans & banners, symbols of SS battalions & divisions, swastikas on flags & tattoos that covered all the main "performers" of this action. West backed it. This means that West has sided with those who want to restore Nazism https://t.co/ctA8TE40dG
1584510979131338752	@mod_russia: We have information about contacts between the Office of the President of Ukraine and representatives of the United Kingdom regarding the possible reception of technologies to create nuclear weapons. https://t.co/ZCacUg38dn https://t.co/LNTsrocnTV
1584243507589697536	The Kiev regime is preparing a provocation related to the detonation of the so-called "dirty bomb" in Ukraine. Russian Defense Minister Sergey #Shoigu held talks with American, French, British and Turkish counterparts on the issue. https://t.co/5ffDdCgxsD
1583560093744115713	Another fake intentionally spread by @CanadaFP. The West & @JustinTrudeau cabinet are perfectly aware - the real perpetrator of the crimes against civilians is they cynically back up. Atrocious nature of #Kiev regime will be eventually revealed to the world. #ZelenskyCriminal https://t.co/0fLPns7vLJ

Id	Text
1583600674822328321	#Buyakevich: Proofs that Ukr.commanders issued criminal orders to exterminate civ.population en masse received no condemnation in the West and from #OSCE leadership. For us, no illusions with whom the struggle goes on. Russia's actions will be proportionate to emerging threats https://t.co/dxx3nvlifl
1583035438201458689	#Zakharova: @McFaul organized the visit by pro-Nazi Ukrainian Azov Battalion personnel to the United States. We were shocked that this scum was praised for the sole reason that they are killing Russians, which the US elite sees as absolution for any crime https://t.co/cUTvZNto3S
1583028874774212608	#Zakharova: NATO continues to flood Ukraine with weapons. Many of them have been or will soon be diverted to the black market and hence terrorists and crime groups. But the West refuses to admit this, which is increasing risks to the security of its own citizens https://t.co/31PRfRUXEK
1584547788335251462	Russian Defence Ministry: According to the information at hand, two organisations of Ukraine have been directly ordered to create the so-called #dirtybomb. The works are at their concluding stage. https://t.co/7mxxCpWSWK
1584564755272171522	@mod_russia: The Kiev regime plans to camouflage the explosion of this kind of ordnance under an extraordinary effect of Russian low-power nuclear warhead that contains highly enriched uranium in its charge. https://t.co/wPxeFNQDWh https://t.co/XKeSN0nQgN

Id	Text
1585376508168015873	President Vladimir #Putin: The black market in arms operating in Ukraine is creating serious challenges. There is a persistent risk of criminals getting hold of more powerful weapons, including portable air defence systems and precision weapons. https://t.co/IJo5oohsH5 https://t.co/oLHpcAkA7v
1582780113145712640	President #Putin: During the referendum, residents of the Donetsk and Lugansk people's republics, the Zaporozhye and Kherson regions firmly and conclusively expressed their will. They want to be with Russia. https://t.co/miaciLokFv
1595000161922686976	Firing missiles at a NATO member state is probably not the best way to join the alliance. https://t.co/xkPmZD5l2q
1594770170492424198	Materials by @JudicialWatch reveal further evidence not only of military-#biological cooperation between #US and #Ukraine, but also of unprecedented turnover of funds spent by the White House. More on the issue: https://t.co/GEdLEovY2r Follow: https://t.co/rJQJsZo40X https://t.co/L7GuR11NIl
1594358303865602049	MFA: Clearly drawing on the experience of their bloody provocations in Bucha & Izyum and barely waiting for armed forces to withdraw from portion of the Kherson region & Kherson, the neo-Nazis are once again doing what they do best, which is abuse civilians. https://t.co/SZF6lWLc3K

Continued on next page

Id	Text
1594320554290446336	MFA: Kiev has become so carried away by military adventures that it remains oblivious to what it is doing. However, time is against them. Every day, more facts about atrocities committed by AFU and foreign mercenaries within special military operation zone transpire. https://t.co/nS6XhH7dQs
1593588495553101826	MFA: The defence's argument that there was NO COMPELLING EVIDENCE that #MH17 was shot down by a missile was ignored. Only materials that supported the Hague-promoted version were analysed, incl from Security Service – an interested party & repeatedly caught on falsification. https://t.co/m8jlZehTPU https://t.co/ebN8cUaCfM
1595746596964257792	After sobering up, fans were surprised to find out that the "immunity" granted by some Western countries to Ukrainian neo-Nazis cannot be enjoyed in normal countries like #Qatar. https://t.co/lc9UytFrMN

B Most Referenced People from Context Annotations

This table provides additional details and absolute reference counts for individuals most frequently mentioned within Twitter's context annotations. Note that context annotation data encompasses both active Twitter users as well as public figures and excludes references from tweets posted before 2022.

While the table provides broader context of the year's most discussed events, it also highlights a significant disparity in the volume of references received. Notably, the top four individuals (Elon Musk, Vladimir Putin, Joe Biden, and Volodymyr Zelensky) garnered significantly more mentions compared to the remaining individuals listed. These top four individuals were referenced in the dataset 64 157 times in total, whereas the remaining forty-six individuals were referenced for a total of 66 397 times.

Name	# of References	Name	# of References
Elon Musk	18291	Hillary Clinton	939
Vladimir Putin	16304	François Asselineau	923
Joe Biden	15293	Cyril Ramaphosa	915
Volodymyr Zelensky	14269	Liz Truss	877
Emmanuel Macron	6559	Tucker Carlson	871
Donald Trump	5722	Lionel Messi	769
Julian Assange	4263	Kejriwal	768
Narendra Modi	4240	Jean-Luc Mélenchon	752
Imran Khan	2801	Cristiano Ronaldo	747
Boris Johnson	2421	Novak Djokovic	712
Jack Posobiec	2311	Enrico Letta	690
Marine Le Pen	2071	Florian Philippot	686
Ursula von der Leyen	1984	Jair Bolsonaro	685
George Galloway	1968	Johnny Depp	671
Barack Obama	1759	Amber Heard	648
Justin Trudeau	1710	Donald Trump Jr.	647
Bill Gates	1562	Tulsi Gabbard	637
Sergey Lavrov	1406	Matteo Salvini	631
Glenn Greenwald	1375	Giorgia Meloni	617
Pope Francis	1220	Benny Johnson	611
Michael Tracey	1210	Rahul Gandhi	596
Luiz Inácio "Lula" da Silva	1138	Yogi Adityanath	596
Nancy Pelosi	1026	Paul Joseph Watson	578
Hunter Biden	1003	Olaf Scholz	571
Arvind Kejriwal	944	George Floyd	567