

Reverse-Engineering of Disinformation Campaigns During the War in Ukraine

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Abstract: Information operations have long been a part of warfare. Disinformation campaigns, in particular, are usually launched by states in order to mislead and confuse populations in adversarial countries, but also to obtain support for their actions from domestic audiences. These campaigns threaten human security, at the individual level, but also state- and even international security. The invasion of Ukraine by Russia came with a new wave of disinformation not only in Ukraine itself, but also in countries from various other continents. This paper studies the characteristics of the spread of disinformation from the first day of the war in February 2022 through July 2023. The data we used in this study came from the EUvsDisinfo project, established by the European Union's East StratCom Task Force in 2015. In particular, we included variables about the topic of these articles containing disinformation, the specific target audience, and origin of the source disseminating the disinformation. The results indicate that the articles concerned predominantly security-focused topics, and to a lesser extent economic and cultural issues. Interestingly, the target audience for the disinformation articles focused predominantly on non-EU/NATO audiences – they overwhelmingly targeted Russian-speaking populations, but also Arab-speaking and Armenian-speaking populations. The majority of the articles were also from Russian sources. The results also provided other additional insights into the characteristics of disinformation during the war which are discussed in the paper as well. Based on our findings, we provide policy recommendations for protection against disinformation campaigns for both EU/NATO-members and countries which were affected by these campaigns but are not members of either of these organizations.

Keywords: Disinformation, Ukraine, Russia, War, Security

1. Introduction

In February 2014 Russian military forces annexed Crimea. Prior to the invasion itself, tensions had been rising within Ukraine with protests against the former President Yanukovich, whom Ukrainian citizens accused of being pro-Russian, when he failed to sign the free trade and association agreement with the European Union, following economic threats from Russia. This event led to a wave of protests across Ukraine, known as Euromaidan, which ended with the President fleeing to Russia and Ukraine electing an interim president. During this time, Russian troops illegally seized the parliament and governmental offices in the Republic of Crimea, appointed a Russian prime minister, and disseminated disinformation initially denying Russia's involvement. Subsequently, it continued with legitimizing the invasion with a controversial referendum, which stated that more than 90% of voters voted for integration of Crimea into the Russian Federation (Singh et al, 2022; Zhang and Zhou 2023). Pro-Russian separatists, receiving Kremlin support, continued to seize government buildings throughout the Donbas region, often ending in violent attacks between Russian-backed forces and Ukrainian troops. Conflicts continued to escalate between the two countries before reaching new heights in 2022. Russian forces began a large-scale invasion of Ukraine after gathering troops around Ukraine's borders the year prior under the guise of a scheduled military exercise. Highlighting that "systematic information manipulation and disinformation by the Kremlin is applied as an operational tool in its assault on Ukraine", the EU adopted a ban on Russian state-owned media (Council of the European Union 2022 par. 2). This paper provides a survey of the disinformation collected from the EUvsDisinfo database to explore its characteristics and to provide policy recommendations based on these findings.

2. Literature Review

During the beginning of the Ukraine War, Russia levied the internet and social media to spread disinformation akin to their Soviet Cold War tactics in the modern digital landscape (Yablokov 2022). Employing bots through various social media sites and domains, such as Facebook, Tik Tok, and official news outlets and trolls - a network of paid personnel spreading offensive/false information online, is not a new tactic for Moscow. The goal of this strategy is to target certain populations throughout the EU/NATO countries posting in their native languages to spread anti-western propaganda and facilitate Russian support (Singh et al, 2022; Yablokov 2022). Observations of Russian methods for disseminating disinformation involve fake media accounts posing as journalists and social

influencers in privately-owned outlets, but also in official government media. Before Russia launched their full-scale invasion of Ukraine, amid concerns of a looming attack, it disseminated disinformation about a routine military exercise near Ukraine's border, denied Ukraine's legitimacy as a sovereign state, and stated that neo-Nazis had seized control of the Ukrainian government.

Further into the war, key themes emerged from the disinformation narratives. For instance, the most common ones focused on calling the war a hoax, delegitimizing war crimes as staged, U.S. sponsored bioweapons targeting Russians, labeling of Ukraine as the perpetrator, genocide of ethnic Russians in Ukraine, and themes that continue to support Ukraine's illegitimacy as a sovereign state and accuse Ukrainian politicians of neo-Nazism. Russia maintained that there is no war and the Ukrainian deaths reported in news outlets are only actors. Furthermore, there were suggestions that the Ukrainian military is actually targeting their own people, including schools and churches, and that the Russian military does not attack "civilian infrastructure". Moscow also made arguments that Ukraine originated with communist Russia and is an illegitimate sovereign state politically and socially run by Ukraine government-backed Nazis (Organisation for Economic Co-operation and Development 2022).

To examine whether Russian propaganda and disinformation is effective, Erlich and Garner (2023) observed that in Ukraine, which has a history of economic and political issues, the population as a whole is most susceptible to disinformation topics related to the economy and politics. In addition to this, they found that citizens of ethnically Russian origin or who support the Russian government, are most likely to believe disinformation is factual. At the same time, in the West, Russian propaganda typically focuses on divisive political and social themes, exploiting polarizing mechanisms, such as gun control, voting, racial tensions, and conspiracy theories (Yablokov 2022). The aim and effectiveness of such disinformation propaganda causes national political and social polarization, opinion manipulation, and possibly governmental and economic destabilization.

Within this context, the following research questions emerge: what are the specific characteristics of the Russian disinformation during the war in Ukraine and what strategies can be created to combat this threat?

3. Data and Methods

To respond to these two questions, we collected data from EUvsDisinfo, an East StratCom Task Force of the European External Action Service's flagship initiative which was created in 2015. Its purpose was to anticipate, address, and react to ongoing disinformation campaigns by the Russian Federation that affect the European Union, its Member States, and nations in the region where they are both located more effectively. EUvsDisinfo goal is to raise public awareness and comprehension of the Kremlin's disinformation campaigns, and to assist people in developing resistance to manipulated digital information and media throughout Europe and beyond. Every week, EUvsDisinfo finds, gathers, and exposes disinformation cases using data analysis and media monitoring services in 15 languages (EUvsDisinfo 2023).

For the purposes of this research, a dataset of all disinformation articles published on EUvsDisinfo website between February 2022 and July 2023 was created (N=1906). A descriptive analysis was provided for the following groups of variables: what topics, sources and targets appear most frequently since the beginning of the war. In addition, we also collected and analyzed data whether the target audience was an EU/NATO-member country and if not, then which the target audience was.

4. Results

Disinformation topics – labeled as economic, cultural and security issues, as listed in Table 1, confirm the expectation that security issues appear as the most common topic, with 1,365 total data entries composing 71.6% of the data. They represent a range of themes, from nuclear security and genocide to and military operations. While much less represented, cultural, and economic issues are also present in the sample, at almost equal rates. Economic topics (N=272 articles) pertained to issues of inflation, taxes, and economic dependency and cultural topics were connected to LGBTQ+ rights and monuments with historical significance (N=271).

Table 1: Disinformation Articles by Topic

Topic	N	%
Economic Issues	272	14.3
Cultural Issues	271	14.3
Security Issues	1365	71.6

For the purposes of our study, we derived conclusions about the disinformation articles' target audience from the nature of the outlet disseminating the disinformation, as listed on the EUvsDisinfo website. For instance, if the outlet where the disinformation was published belonged to an EU/NATO member country, we interpreted this as if this is the desired target audience. We distinguished between three groups of target audiences – EU/NATO audiences, Non-EU/NATO audiences, and mixed audience (outlets in various countries), including EU/NATO and non-EU/NATO countries. Interestingly, Table 2 represents that the disinformation articles targeted Non-EU/NATO countries more often, with 1,116 entries composing 58.5% of the data, and EU/NATO countries at a much lower rate (N=728), representing 38.6% of all observations. Disinformation articles disseminated through outlets in different countries, both EU/NATO and non-EU/NATO members, appear much less frequently (N=56), composing 2.9% of the total data.

Table 2: Disinformation Articles by Target Audience

Target Audience	N	%
EU/NATO Country	728	38.6
Non-EU/NATO Country	1116	58.5
Mixed (EU/NATO Country and Non-EU/NATO Country)	56	2.9

We also explored what Non-EU/NATO target audiences were the target of disinformation since the beginning of the war (Table 3). While it needs to be noted that some articles targeted multiple countries, our analysis showed that most articles targeted Russian-speaking populations (N=901) - with 47.2% of the sample, followed by Arabic-speaking countries (N=168), with 8.8%, and Armenian-speaking populations (N=100), at 5.2%. Other target audiences also included African-Speaking populations, and also such in Azerbaijan, Georgia, Ukraine, and Moldova, Belarus, Venezuela, and Serbia.

Table 3: Disinformation Articles by Non-EU/NATO Country Audience

Non-EU Target Audience	N	%
African-Speaking Audience	13	0.7
Arabic-Speaking Audience	168	8.8
Armenia	100	5.2
Azerbaijan	8	0.4
Belarus	1	0.1
Georgia	37	1.9
Moldova	3	0.2
Russia	901	47.2
Serbia	1	0.1
Ukraine	15	0.8
Venezuela	1	0.1

Table 4 below represents the disinformation articles by official Russian (e.g., RT, TASS, RIA, Gazeta, etc.) and non-Russian sources. The results reveal that Russian sources are much more common in the sample (N=1,311), composing 68.7% of the data, with non-Russian sources (N=597), composing only 31.3% of the data.

Table 4: Disinformation Articles by Source

Source	N	%
Russian	1311	68.7
Non-Russian	597	31.3

5. Analysis

Between 2021 and 2022 Ukraine and the EU took measures to officially ban Kremlin-backed media sources, such as RT and Sputnik in an effort to legally regulate the Russo-Ukraine War disinformation. Despite these efforts, Russian disinformation continued to spread across the EU (Klepper 2022). The analysis of the data collected

demonstrates that even with legal sanctions against Russian disinformation outlets, Russia and Kremlin-backed media outlets continued to operate using techniques that directly undermined factual outlets and trust in public institutions and governments. From the three chosen categories for this data analysis, which included economic, cultural, and security related issues, disinformation concerned with security topics was, expectedly, the highest. The security topics focused disinformation on subjects involving the war on Ukraine, global food shortages, nuclear power, mass murder, chemical warfare, and western and neo-Nazi invasion of European countries. While the predominant amount of disinformation articles focuses on security issues, it is important to be highlighted that cultural and economic issues, equally distributed, are also present in the network of disinformation articles and should not be underestimated. Mainly because they are not security issues, they may be taken more seriously by readers, who may not suspect that the outlet sharing the information is pursuing political purposes.

Interestingly, as opposed to NATO/EU countries being the primary targets for the disinformation articles, Non-EU/NATO countries (58.5%) comprised the largest number of target audiences for disinformation. The majority of people who the disinformation tried to reach are Russian speaking (47.2%), showing a clear intent by Moscow to influence mostly domestic audiences and such who may live abroad, but obtain information in Russian language. This was conducted also through majority Russian state or Russian-owned outlets. Another finding from the study points to Arabic-speaking, Armenian-speaking and Georgian-speaking populations being among the main targets for the disinformation. The Ukraine War gave Russia another opportunity to further expand its already existing influence in the Middle East through information operations among the Arabic-speaking populations (Borshchevskaya and Cleveland 2018). As for Armenia, the pattern of disinformation may further change, as the country is seeking to align itself closer with the West, after the events in the Nagorno-Karabakh region in September 2023 following Azerbaijan's invasion and Russia's inability or unwillingness to protect the status-quo in the region. In October 2023, Armenia's parliament accepted the jurisdiction of the International Criminal Court and at least in theory made it possible for Vladimir Putin to be arrested if he is ever to enter the country (Gavin 2023). At the same time, Georgia may see an increase of Russian disinformation campaigns as Tbilisi's policy during the war has been to abstain from any major actions against Russia amid cooling of its relationship with its Western partners (Avdaliani 2023). The latter may be seen as an opportunity by Moscow to reach out to Georgians again in an attempt to further exacerbate the otherwise favorable opinion the country has for its western partners represented by EU and NATO.

Based on the results from this study, three relatively new patterns emerge, based on which recommendations on how to combat further disinformation can be made. First, the main target of Moscow's disinformation campaigns are non-EU/NATO countries, as opposed to EU/NATO ones. This calls for special attention paid to countries outside of the EU/NATO borders, particularly in the Middle East, Africa, and Georgia. Second, the most desired targets of the disinformation are Russian-speaking, which requires measures aimed at supplying Russian-speaking populations with reliable information. Third, the majority of the sources of disinformation are state-owned or established Russian media outlets, which reveals the credibility which the Kremlin potentially considers these outlets to have among local and foreign populations. Informing readers about the rate at which Russian media (and particularly the state-owned ones) are disseminating false information with the aim to gather support for its strategic purposes and goals should also be of primary significance.

6. Limitations

The results of this study should be considered in the context of various limitations. First, the only source from which the data was gathered is EUvsDisinfo, and while credible, it is possible that this database does not fully represent the breadth and the nature of the disinformation articles related to Russia. Our findings should also be compared to such derived through analysis of other sources, different than EUvsDisinfo, particularly such which involve materials in more than the 15 languages that EUvsDisinfo uses. Second, it is possible that after July 2023, which was the end point of our data-gathering efforts, the character of the disinformation articles changed, thus showing new patterns which should be explored in further studies.

7. Conclusion

Responding to disinformation related to the war in Ukraine is an intricate process. Efforts to safeguard accurate information utilizing collective databases, such as the EUvsDisinfo, which debunks false news is just one approach to tackling disinformation sources. Data collected by such databases allows for a deeper introspection into the characteristics of disinformation, including media outlets disseminating disinformation and target audiences. This paper and the data analysis collected demonstrate that in times of war, disinformation is a far-

reaching issue that affects countries beyond the borders of warring nations. Countries can perpetuate disinformation sources as legitimate news sources from within the target audience's country. Furthermore, Kremlin-backed disinformation outlets targeting countries within and outside of the EU/NATO borders show support for Russia, undermine efforts of factual reporting on war crimes, and negatively depicts nations providing aid to Ukraine. Findings from this study indicate that sanctions and other legal means to arrest disinformation are increasingly complex in the contemporary digital landscape. Efforts to combat disinformation call for a multifaceted approach involving research and policy measures, along with databases, such as the EUvsDisinfo, which monitors disinformation and offers the opportunity to for more detailed models and further insights.

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