A Framework for Analysing Disinformation Narratives: Ukrainian Refugees in Bulgaria

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Abstract: *This article presents a methodological framework for analyzing disinformation narratives, emphasizing the significance of localized contextualization, particularly the influence of cultural and historical factors embedded within these narratives. Understanding these elements is crucial for unpacking the dynamics and power relations present in disinformation discourses. The study focuses on misleading information regarding Ukrainian refugees in Bulgaria, a country vulnerable to disinformation yet often overlooked in research, partly due to its linguistic context. Additionally, the paper advocates for the application of Gramscian theories of hegemony and the "war of position" as contextual lenses to enhance the theoretical and methodological framework. This framework employs a discourse analysis approach, supplemented by Natural Language Processing (NLP), enabling the capture of critical aspects of disinformation dynamics and yielding multi-layered, informative, and actionable insights.*

Keywords*: Disinformation, Discourse Analysis, Natural Language Processing (NLP) Bulgaria, Refugees.*

1. Analysing disinformation

1.1. The problem of disinformation/propaganda

The scale and impact of disinformation, misinformation, and propaganda in contemporary social and political discourses are profound [40]. While these phenomena have long been part of politics, the rapid growth of social media platforms has significantly amplified their reach and pervasiveness across topics. We now live in an era where misleading information can be disseminated to billions within minutes [17]. Additionally, this age of increasing access to vast amounts of information almost instantaneously has increasingly been characterized by political polarization, economic and public health crises, and erosion of trust in institutions.

Specifically, in the past decade, we have seen how a proliferation of false or misleading narratives and propaganda spread through social media have influenced election dynamics globally and doing so have also contributed to a lack of faith in

public and political institutions [46]. In public health, we have all seen how misinformation can contribute to the spread of deadly diseases, while in social contexts, it can sow division, fuel hatred, overly simplistic caricatures, resentment, and violence [22]. This issue poses significant challenges to both individual and collective decision-making processes, exacerbating declining trust in institutions and creating confusion on critical issues. Furthermore, disinformation undermines efforts to tackle contemporary existential problems and distorts public perceptions of reality, complicating the distinction between fact and fiction. Adapting to the informational revolution of the last several decades clearly represents one of the central long-term challenges in the early 21st century [22].

1.2. Towards a more comprehensive framework

This paper develops a reliable framework for analyzing disinformation narratives that is both analytically insightful and conducive to discussions on effective responses. Much of the existing literature on disinformation focuses on a limited set of key patterns and response strategies. This paper begins with an overview of prominent literature on the topic, emphasizing the need for a clear definition of the problem. Notably, there is often a lack of a clear distinction between disinformation and misinformation [2, 19, 47]. For the purposes of this paper, disinformation is defined as any false, unconfirmed, or misleading information which is seemingly deliberately spread to manipulate public opinion.

The role of social media in the rapid dissemination of disinformation narratives is a widely acknowledged concern within the literature. Research in the field has examined how alternative narratives and conspiracy theories spread online, often amplified by bots and automated accounts [43, 44]. Others highlight the influence of tech giants and social media platforms, whose business models shape public discourse and contribute to threats against democratic institutions and social cohesion [61]. There is also extensive research [12] that analyses foreign actors who use social media to spread disinformation and propaganda aimed at influencing democratic processes. Various experts [5, 48] stress the importance of examining how social media platforms and disinformation narratives shape public discourse, thereby revealing the broader societal challenges posed by the spread of misinformation.

In addition to these considerations, it is crucial to assess the factors that determine the successful diffusion of disinformation narratives. Particularly, analyzing local specificities—in this case such as social, economic, political, historical and cultural discourses—provides a valuable avenue for investigation. This includes examining how narratives are framed and the dynamics which operate within them and the presuppositions embedded within specific contexts.

Examining facts and myths around misperception [33] reveals that the sources of false claims and belief in disinformation are often observable within political discourses along partisan lines. This is echoed by work [37] which observed that beliefs in COVID-19 conspiracies were more prevalent among individuals with conservative ideologies or from disadvantaged racial-ethnic groups, highlighting the important role which media literacy and education will need to play in long term strategies on the issue. We must address misinformation about the problem itself,

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cautioning against the notion that prior to social media or specific political figures, we existed in a "golden age" of factual political debate [33]. Disinformation and propaganda have historically influenced partisan politics and public support for various policies and conceptions of events, actors or groups. Political polarization and technological development should never be viewed as the sole drivers of disinformation narratives [42, 35].

A useful analytical lens, particularly within the context of a post-communist society with high political instability combined flawed top-down transition process is the concept of hegemony. Gramsci's theory of hegemony [18] contends that power is exercised not only through coercion but also through cultural and ideological means, including language, media, education, and religion. The ruling class (the hegemonic group) employs its dominant cultural and ideological values to maintain power over subordinate groups, legitimizing its rule as natural, unquestionable and necessary. Disinformation can reinforce dominant narratives, stereotypes, or prejudices that serve hegemonic interests while undermining resistance from subordinate groups. Successful campaigns exploit existing societal divides and tensions, creating emotionally charged narratives that incite specific group behavior, and which can invoke historical, social and cultural identities [25]. Hegemony is dynamic and subject to contestation [18], which can manifest through the articulation of alternative hegemonic orders that invoke political, cultural, or economic values and symbols. Consequently, disinformation narratives frequently exploit the hardships stemming from institutional failures and the political class [32].

1.3. The importance of local specificities

Contemporary disinformation narratives at the national level contain many, often draw on overlapping and shared societal issues, widespread disillusionment with existing institutional power structures and policies. These feelings of dissatisfaction are amplified by our shared global informational space and common vehicles of dissemination [2]. These issues can include shared sentiments of low institutional trust, growing economic and political instability, along with volatile social challenges, including evolving conceptions of collective identity and issues of diversity and migration. The severity of these issues naturally lead to the development of shared strategies for tackling the problem such as pre-bunking, media literacy and fact-checking programs which transcend national boundaries [14]. Without a framework for understanding the unique cultural and historical context of each variant, we are unlikely to mitigate the problem in the short term or craft effective solutions. While still at an early stage, research is beginning to emerge which recognizes the importance of local specificities with respect to disinformation narratives [1, 26, 51]. To this end, an appreciation of the historical and cultural context of a particular country's social and political discourses on an issue is a logical step in revealing how disinformation narratives become understood, take root and are more likely to be accepted and spread.

Due to the limited amount of work done on the issue in the local language, Bulgaria is perhaps one of the least represented countries in terms of this type of research and discussion. Bulgaria's unique political, economic, cultural, linguistic

and historical background, together with its contemporary political and economic vulnerabilities, and strategic position within European and international politics at this historical moment, makes a response appreciative of these factors critical. To this end, this paper attempts to contribute to this conversation by focusing on the disinformation narratives observed within a selection of online platform data surrounding Ukrainian refugees in Bulgaria in the period 24 February 2022-24 February 2023, a period of one year beginning with Russia's invasion of Ukraine. The central task of this framework is to consider how existing local specificities make possible the spread of disinformation narratives on the issue. In addition, we aim to contribute objective research aiming to identify the dynamics and narratives which reinforce or spread them. While this is just a starting point, it is the hope of the author that this will lead to further and more in-depth research of this type into other disinformation discourses within the Bulgarian context.

2. Theoretical and methodological approach

2.1. Gramsci and Discourse Analysis as a theoretical approach to Disinformation

This paper's primary hypothesis posits that employing a combination of Natural Language Processing (NLP) and discourse analysis to examine disinformation narratives surrounding Ukrainian refugees in Bulgaria will reveal recurring themes. These themes will facilitate the identification of prevailing disinformation narratives, which, in turn, shape worldviews that can be elucidated through discourse analysis [1]. Gramsci's concept of hegemony serves as a lens through which we can analyze and understand the context of the informational environment [18]. This framework allows us to explore the complexities and nuances of disinformation while considering local cultural, social, political, and historical contexts [18]. Disinformation often manipulates and reinforces dominant narratives that align with the interests of those in power. By applying the theoretical lens of hegemony, we can investigate how disinformation campaigns operate within specific contexts, reinforcing the interests of dominant groups or political elites. Understanding local cultures and histories enhances our comprehension of how disinformation is received and resisted by various groups, as well as the potential for alternative narratives and counter-hegemonic movements to emerge. Roxanne Lynn Doty's Discursive Practices Approach (DPA) complements this analysis by facilitating the examination of linguistic mechanisms employed in disinformation campaigns [13]. This approach allows us to identify textual strategies that manipulate public opinion [15]. Furthermore, it incorporates the broader social and cultural contexts in which disinformation is produced and circulated [15]. The following aspects illustrate how discourse analysis can enhance our understanding of disinformation narratives:

Identifying key discursive features. Through discourse analysis, we can pinpoint the linguistic features and rhetorical strategies employed in disinformation narratives about migrants and refugees [54]. This includes analyzing language patterns, such as emotive language or appeals to authority, and examining how information is framed. This process also helps identify hegemonic understandings embedded within the narratives.

Examining the context of production. Discourse analysis uncovers the social and cultural factors that shape the production of disinformation narratives [13]. This includes exploring the political, economic, and ideological interests that drive the dissemination of false information.

Identifying the intended audience. Discourse analysis aids in identifying the target audience for disinformation narratives and the ways different groups may be addressed with tailored messages. This encompasses recognizing the historical and cultural prepositions within the narratives that enhance their appeal.

Tracing the development of disinformation. Discourse analysis can potentially track the 'lifespan' dissemination of disinformation narratives across various media platforms, identifying how these narratives are adapted or amplified as they circulate. For instance, we can investigate how narratives are repeated and reshared on social media platforms like Facebook by specific users.

Overall, we believe the integration of Gramsci's concept of hegemony with a discourse analysis framework provides a valuable, multilayered toolkit for unpacking how locally specific experiences, language and discourses shape perceptions and attitudes regarding refugees and migrants in Bulgaria. This methodological approach highlights the discursive practices underpinning disinformation narratives. By examining these practices through the lens of hegemonic power, we can contribute to discussions around developing more effective strategies for countering the spread of false information in the long and short term.

2.2. Methodological approach

This paper presents a methodological approach that combines NLP with discourse analysis with the aim of achieving a comprehensive understanding of the construction and dissemination of disinformation narratives on this topic [60, 34]. The application of NLP algorithms in political discourse analysis, particularly for detecting misinformation campaigns or "fake news", has garnered increasing attention in recent years. Z h o u et al. [60] emphasize that studying these phenomena necessitates interdisciplinary expertise spanning computer and information science, political science, journalism, social science, psychology, and economics. Our attempt is such an interdisciplinary approach. Furthermore, various examples of prominent research in the area have proposed several different methodologies for false or misleading news detection utilizing machine learning models and text mining techniques [11, 23, 34]. Content analysis increasingly relies on these algorithms to extract information and categorize recurring themes within extensive datasets of natural language data.

Our approach leverages text mining to identify key recurring topics, track their evolution over time, and discern patterns and themes within the dataset. Generally, this involves a process of summarization of the narrative themes which occurs along with their regularity and consistency in the dataset. Doty's Discursive Practices Approach (DPA) is then employed to unpack the suppositions and presuppositions embedded within these narratives [13]. The NLP analysis incorporates three metrics as follows.

Sentiment analysis. This aspect of NLP facilitates the identification of emotionally charged and targeted content within the dataset, revealing polarized positions in disinformation narratives. Sentiment analysis is crucial for highlighting the impact of language in fake news stories and discerning the emotional tone used to disseminate disinformation narratives [10]. This analysis uncovers insights into how emotions such as fear, anger, resentment, or disgust are strategically employed to manipulate public opinion. By integrating DPA, we can further explore how presuppositions embedded in the language of sentiment analysis shape the emotional framing of narratives, influencing audience perceptions and responses [13].

Named entity recognition. This feature identifies and categorizes various entities within the dataset, including individuals, locations, and organizations. It is instrumental in pinpointing the key actors and organizations involved in the spread of disinformation and elucidating their interconnections [45]. By identifying the principal actors in disinformation discourses surrounding refugees and migrants, we can gain insights into the tactics employed on social media platforms to sway public opinion. The concepts of predication and subject positioning complement this analysis by revealing how the characterization of these entities can influence public perception and reinforce or challenge existing power dynamics within the discourse [13].

Topic modelling. Analyzing the topics present in a large dataset of fake news stories aids in identifying the key themes and issues manipulated to disseminate disinformation [10]. This technique also helps identify the various actors involved in the disinformation campaign and their connections. By uncovering the underlying topics and themes present in these messages, we can generate insights into the narratives and metanarratives that shape the worldview contributing to disinformation regarding Ukrainian refugees in Bulgaria. The DPA framework allows us to examine how the framing of these topics through subject positioning can affect the audience's understanding and acceptance of the narratives, thereby influencing the overall impact of disinformation [13].

3. Data and findings

3.1. Data collection, refinement and processing

The analysis is based on a data sample of 2,062 Facebook posts related to Ukrainian refugees in Bulgaria, collected from 24 February 2022 to 24 February 2023. This sample was sourced using the Facebook-owned social media analysis tool CrowdTangle (CrowdTangle was a public insights tool from Meta to explore public content on social media platform Facebook. As of 14 August 2024, CrowdTangle is no longer available), employing a Boolean search string in Bulgarian.

In preparing the dataset for analysis, we removed any NaN values, replacing them with either the link or image description to facilitate further processing. During our manual review, we identified and added any missing text. Initially, we collected 4583 posts; however, after removing duplicates, we retained 2062 posts, resulting in a loss of over half of the original dataset.

For our NLP analysis, we utilized two distinct tools: one for named entity recognition and another for sentiment analysis. We employed Classla [62] for named entity recognition, which is a fork of Stanza capable of effectively processing South Slavic languages, including Bulgarian. For sentiment analysis, we initially used a tool developed by Radostin Cholakov (**https://azbuki-ml.com/**). Although this tool was not specifically designed for social media texts, we manually verified all labels for accuracy using the COGENT data enrichment platform developed by Commetric Ltd (**https://commetric.com/**). The COGENT platform is an enterprise-level, web-based media research tool that encompasses functions such as news gathering, parsing, processing, storing, AI enrichment, searching, and coding custom taxonomies. Additionally, we faced challenges with topic modeling in Bulgarian due to the lack of available tools for automatic topic classification. Consequently, the authors manually processed the data to classify various orders and levels of topics using the COGENT platform. We will explain the manual coding process in more detail below.

3.2. Analysis results

3.2.1. Sentiment analysis

The first point of note is that during the manual sentiment analysis quality check it was noticed that 520 posts, relevant to the topic, did not warrant a sentiment coding. This was due to these posts consisting of one-word or passing mentions of Ukrainian refugees in Bulgaria. Adding these numbers to a neutral coding would have, in our view, distorted the findings. The overall sentiment expressed in the remaining data was unsurprisingly negative in tone. 54% (913 posts) of posts were deemed negative towards Ukrainian refugees. 7% (104 posts) were deemed positive and 39% (525 posts) were deemed neutral in tone. There was only one month during the period analyzed where negative sentiment did not appear and that was in late February 2022, when the war in Ukraine began. Other than that (Fig. 1), each month saw negative coverage outpace neutral coverage. In March 2022, neutral and positive coverage peaked respectively, as efforts were made to welcome, support, and accommodate Ukrainian refugees were widely spread via Facebook.

Fig. 1 shows that negative sentiment peaked in May of 2022. This is significant because it occurred close to the time (31 May 2022) when Ukrainian refugee accommodation at Black Sea Resorts was set to end. All refugees who had not found alternative accommodation were told they would be transferred to state-owned complexes and military bases after that date. This move was partly to protect the beginning of the Bulgarian summer tourist season. Nevertheless, this marks the peak of disinformation narratives on the accommodation issue. This trend declined as we continued into June 2022 at a relative scale across all sentiment values. There was also a significant decline in volumes. Additionally, in November 2022, another peak of negative posts on this topic can be identified in response to the announcement of the caretaker government that Ukrainian refugees will remain for a further four months wherever they are accommodated. This policy came after Ukrainian refugees had protested an announcement at the end of October that the state-supported accommodation in hotels would end and that they would be moved to state accommodation facilities. Already here we can see that these events elicited a strong

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negative emotional reaction. Especially in comparison to other, smaller peaks of note in September and October of 2022. These smaller autumn peaks could be associated with fallout around a severe flooding disaster in the Plovdiv Province of Central Bulgaria on September 2nd, specifically affecting the villages of Bogdan, Rozino, Karavelovo, Stoletovo, Pesnopoi and Trilistnik. The flooding caused damage to infrastructure and left the area without electricity and drinking water, displacing around 500 people. As we examine the period of December 2022, and into early 2023 volumes on the issue of Ukrainian refugees continue to decrease.
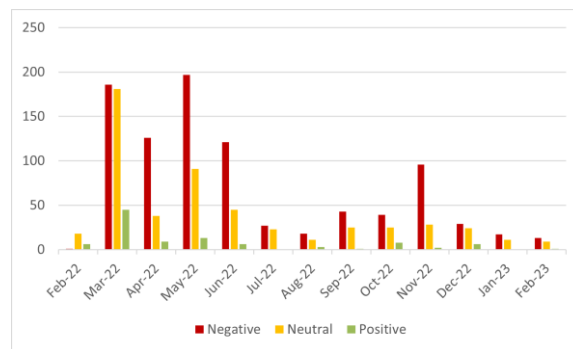

Fig. 1. Sentiment over time (monthly)

The data analysis showed that most of the disinformation on Ukrainian refugees utilized links. This data suggests given the heavy negative sentiment attached to these posts, that click-bait-style headlines with emotional buzzwords shared through links and photographs are important aspects of diffusion. Status updates are the next most prevalent, then Native Video (65 posts), Live Video Complete (12 posts), YouTube (8 posts), Video (4 posts), and Live Video Scheduled (4 posts). These are considerations for formulating any fact-checking strategies to combat these narratives.

3.2.2. Named entity recognition

There were various types of entities identified by the NLP analysis in the data, the most common were Locations (7167 mentions), followed by Persons (3406 mentions), then Organizations (2947 mentions), and finally Others (1129 mentions). Fig. 2 demonstrates the distribution of these entities over the period analyzed. There are some interesting insights when considered in conjunction with Fig. 1 is an initial spike in visible Organizations in February and March 2022 in the wake of Russia's invasion as groups sought to advertise and promote facilities and aid campaigns to help Ukrainian refugees who entered Bulgaria. During May 2022 when there was a spike in negative disinformation activity due to the controversy surrounding accommodating Ukrainian refugees at Black Sea resorts, Persons and Locations were the most prevalent entities within the dataset. Organizations only regained prominence within the dataset in July/August 2022 as many Ukrainian refugees left Bulgaria due to poor government communication and dissatisfaction. Additionally, this trend continues towards the end of 2022 and the beginning of 2023 as general interactions decrease.
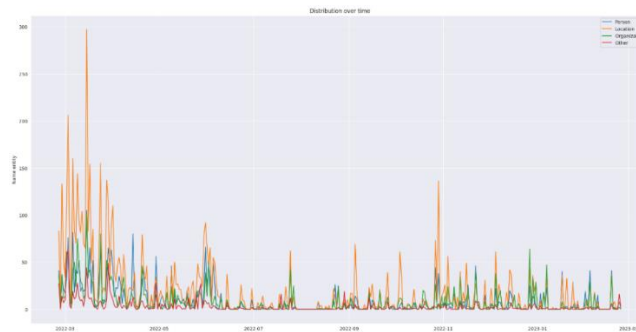
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Fig. 2. Named entity recognition distribution over time

Fig. 3 is based on the most often recurring types of entities that author or share posts. The Media Organization in first place posted on average of 10 times per month. The names of the users and organizations have been anonymized to protect their privacy.
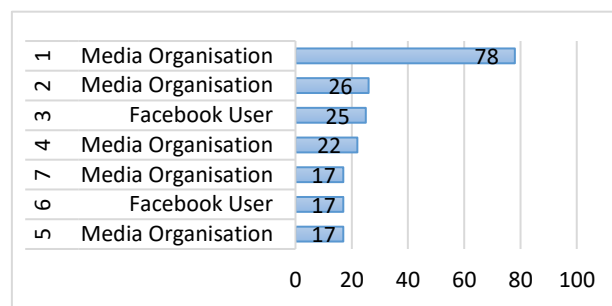

Fig. 3. Top author entity types

3.2.3. Topic modelling: Sub-topics and discourse analysis

As already outlined above, due to the linguistic limitations of automated topic modeling algorithms, this was not an automated process but was conducted manually, using the COGENT platform. Not only did we manually code for topics, but also for sub-topics that offer more depth and detail on the key issues driving disinformation narratives around the Ukrainian refugees. It is also worth noting that each post can contain more than one topic and sub-topic and hence narratives can interact and support one another. Indeed, there are several crossover points on specific topics, which I will discuss below.

For some brief context, it should be noted Bulgaria has experienced frequent political instability during the period analyzed. This political crisis has prevented the successive formation of stable governments or coalitions. On 27 October 2024, Bulgarians will go to the polls for the seventh time in three years to elect members of the National Assembly. This political instability is situated with a background of a very flawed transition process, the reality, and widespread acknowledgment of alleged political corruption, state capture, and increasing polarization within political discourses. During the period under analysis in this study, a coalition known as "*Продължаваме промяната*" (Let's Continue the Change/PP), founded by Kiril

Petkov and Asen Vassilev formed a government in December 2021 and held power until June 2022, when they were subject to a no-confidence vote in parliament [63]. Inconclusive elections which again failed to elect a majority or coalition were held in October 2022, which had low turnout and showed evidence of voter fatigue after four legislative elections and one presidential election over the span of 18 months [63]. Until President Radev dissolved parliament in February of 2023 and called new elections for 2 April 2023. Since this period Bulgaria has had two new National Assembly elections, on 9 June 2024, and on 27 October 2024.

The major topics that emerged from the manual topic modeling are outlined in Table 1. The predominant topic of disinformation narratives concerning Ukrainian refugees exhibits a strong bias toward economic issues, with narratives primarily discussing the economic hardships faced by Bulgarians in the context of Ukrainian refugees, occurring 1065 times. The next most frequent topic was social issues related to Ukrainian refugees, which appeared 517 times. Following this, the topic of the Ukrainian War and its implications for Bulgaria occurred 212 times, while political actions and government policy garnered 191 occurrences. Historical narratives appeared 81 times, cultural topics 63 times, and health-related narratives were the least frequent, occurring only two times.

Table 1. Major topics

Topic	Number of posts
Economic	1065
Social	517
Ukrainian War & Bulgaria	216
Political Action/Government Policy	186
Historical	83
Cultural	63
Health	2

The DPA would interpret these topics by examining the presuppositions and predications embedded within the narratives [13]. For instance, the emphasis on economic hardships presupposes a direct competition for resources between Bulgarians and Ukrainian refugees, framing the latter as a burden rather than as individuals in need of support. These predicates shape the public perception of refugees, positioning them as economic threats rather than contributors to society.

From a Gramscian perspective, these topics in general reflect a discursive tendency to prioritize economic concerns, which may serve the interests of dominant groups by reinforcing existing societal divisions. By framing Ukrainian refugees primarily through the lens of economic impact, the narratives obscure the broader humanitarian context and the potential for solidarity, thereby maintaining the status quo and limiting the emergence of counter-hegemonic narratives that advocate for inclusivity and support for refugees. Of course, this should also be considered in tandem with the sub-topics and narratives observed within this dataset.

Within the Economic topic, several important sub-topics emerged (Table 2), the most prominent of which included narratives suggesting that Ukrainians live pampered and luxurious lives in Bulgaria. This narrative constructs an image of indulgence, implying that Ukrainians do not merit the support they receive from

society, thereby reinforcing negative stereotypes. Another sub-topic claims that Ukrainian refugees are economically dishonest, presupposing that they are less trustworthy than other societal members. Of course, this 'othering' narrative suggests that Ukrainian refugees may exploit the system or deceive others, further entrenching negative stereotypes about refugees and their communities.

Table 2. Economic sub-topics

Economic sub-topics	Number of posts
Ukrainian Refugees are economically dishonest	219
Bulgarians should get the same economic support as refugees	198
Bulgarians are being victimized by economic policies supporting refugees	133
Ukrainian refugees have expensive cars and/or clothes	87
Bulgarians are suffering, while Ukrainians live in resorts	66
Ukrainians manipulate hotels that house them for better accommodation	28
Hoteliers cannot afford to house Ukrainian refugees	27
Need for energy agreements with Russia	17
Bulgaria cannot accommodate refugees	7
Refugees will affect seaside tourism	6
Bulgarian Pensioner's home given to Ukrainian refugees	5
Ukrainian refugees will get free Healthcare, while Bulgarians go without	5

The claim that Bulgarians should receive the same support as refugees presupposes that Bulgarians are treated unfairly compared to refugees, implying that Ukrainian refugees are taking resources from the local population and are more privileged. The narrative that Bulgarians are victimized by economic policies supporting refugees suggests the existence of policies that favor refugees, presupposing that these individuals receive resources that adversely affect Bulgarians. Such posts imply that Bulgarians bear a burden imposed by refugees, losing resources or opportunities due to their presence.

Another narrative within this sub-topic posits that Ukrainian refugees possess expensive cars and clothing, presupposing that they have luxurious possessions inappropriate for their situation, which reinforces negative stereotypes about refugees. This discourse implies that Ukrainian refugees do not genuinely require support or assistance, questioning their status as "real" refugees. Collectively, these narratives exemplify disinformation that expresses profound dissatisfaction with the economic treatment of Ukrainian refugees through state and EU aid, particularly in the context of the struggles faced by vulnerable Bulgarians.

This discontent was exacerbated by events such as the September 2022 flooding in Plovdiv Province, which resulted in inadequate infrastructure, resources, and housing for Bulgarians, alongside low salaries and insufficient social support for the most vulnerable. These narratives were highly emotive, appealing to feelings of outrage and anger, and frequently depicted Bulgarian citizens as second-class economically within their own country. In contrast, narratives portraying Ukrainian refugees as economically dishonest suggested that they were orchestrating scams against Bulgarians, living in luxurious seaside resorts, demanding amenities, and driving expensive cars. Specific narratives alleged that Ukrainians organized schemes to secure stays in better resorts, claiming refugee status while vacationing at the Bulgarian seaside. Although the potential impact of the refugee situation on the

summer tourism industry was a less frequent topic, it surfaced with emotional undertones, suggesting that Bulgarian workers were displaced from enjoying their own seaside resorts.

The narrative suggesting that Ukrainians live luxurious lives presupposes a disparity in treatment, positioning refugees as undeserving of support and fostering resentment among Bulgarians. Similarly, the claim that Ukrainian refugees are economically dishonest predicates a lack of trust, reinforcing negative stereotypes that further marginalize these individuals.

Table 3. Social sub-topics

Social sub-topics	Number of posts
Do not respect Bulgarians/Bulgaria	153
Ukrainians are ungrateful to Bulgarians	79
Refugees commit criminal acts	76
Do not follow Traffic laws	72
Ukrainian Refugees Steal	70
Ukrainian Refugees may be Azov Neo-Nazis	67
Europeans are fed up with Ukrainian Refugees	41
Ukrainian refugees attacked and robbed	34
Refugees are involved in violent acts/threats	31
Ukrainian refugees should be vetted	22
Ukrainians damage property after being asked to leave	19

The sub-topics associated with the major topic of Social (Table 3) revealed significant patterns within disinformation narratives. The most frequent sub-topic, "Ukrainian refugees do not respect Bulgaria/Bulgarians", presupposes that Bulgarians deserve respect and implies that Ukrainians fail to meet this expectation. A related narrative, "Ukrainians are ungrateful to Bulgarians", presupposes a specific attitude among Ukrainians and suggests that Bulgarians have provided support deserving of gratitude. Further representations portray Ukrainians as violent or criminal, as seen in sub-topics such as "Ukrainian refugees commit criminal acts", which presupposes a distinction between law-abiding citizens and refugees, implying a heightened risk associated with their presence. The claim that "Ukrainian refugees do not follow traffic laws" presupposes that these individuals routinely violate such laws, reinforcing the notion of a divide between law-abiding citizens and refugees. Additionally, the assertion that "Ukrainian refugees are linked to Azov Neo-Nazis" presupposes connections between these groups, framing them as a cause for concern. Other notable sub-topics include "Other Europeans are fed up with Ukrainian refugees", suggesting a broader discontent with Ukrainian attitudes across Europe. The narrative "Ukrainian refugees should be vetted" presupposes the necessity for a vetting process, implying that current measures are inadequate. Lastly, the claim that "Ukrainians damage property after being asked to leave" is based on a few reports, presupposing that Ukrainians possess a specific attitude of entitlement and will act irresponsibly and ungratefully. Protests removal from resorts further illustrates this presupposition. Collectively, these narratives construct a representation of Ukrainians as disrespectful, criminal, ungrateful, and untrustworthy toward Bulgarian society. For example, the assertion that Ukrainians are ungrateful

presupposes that Bulgarians have provided significant support, reinforcing a victim position on Bulgarians.

Table 4. Ukrainian war & Bulgaria sub-topics

Ukrainian war & Bulgaria sub-topics	Number of posts
Pro-Russian/Anti-NATO narratives about the war	96
Only Wealthy Ukrainians flee the war	65
A neutral position regarding the war should be adopted	52
Supporting the Ukrainian regime is harmful to Bulgaria	34
The US has ulterior motives for supporting Ukraine	19

The primary causal factor for refugees fleeing to Bulgaria was the Russian invasion of Ukraine. Under the major topic of "Ukrainian war & Bulgaria", several interesting sub-topics (Table 4) emerge, including "Pro-Russian/Anti-NATO narratives". These narratives generally presuppose that Russia is a preferable partner and ally compared to NATO, portraying NATO as an aggressive military force while framing Russia as defensive. Another sub-topic, "Only wealthy Ukrainians flee the war" presupposes a connection between economic status and refugee legitimacy, thereby questioning the authenticity of Ukrainian refugees. The narrative advocating for a neutral position regarding the war presupposes that such a stance is both possible and appropriate for Bulgaria, linking this perspective to cultural and historical ties with Russia. Additionally, the sub-topic "Sup-porting Ukraine is harmful to Bulgaria" presupposes a conflict between supporting Ukraine and Bulgaria's national interests, while "The US has ulterior motives for supporting Ukraine" suggests that external motivations complicate Bulgaria's geopolitical stance. These narratives illustrate how the Ukrainian war is intricately woven into local discussions about Bulgaria's geopolitical orientation, framed through either a pro-Western or pro-Russian lens. Most of the anti-Ukrainian refugee sentiment shares clear points with either pro-Kremlin, NATO critical, or ultranationalist narratives regarding geopolitics, leading to emotive exchanges where both pro-Russian and pro-Ukrainian. NATO factions accuse each other of being "traitors" to their homeland. Doty's [23] DPA would also characterize the assertion that only wealthy Ukrainians flee as presupposing a hierarchy of refugee legitimacy based on economic status, undermining the experiences of those who do not fit this Mold.

Table 5. Political actions/Government policy sub-topics

Political actions/Government policy sub-topics	Number of posts
Preferential treatment for Ukrainians shows current admin flaws	56
Ukrainians leave due to unclear government policies	38
Refugees are a possible national security threat	13
Former Prime Minister discusses Bulgaria's borders as insecure	12
Former Prime Minister associates migrants with crime and murder	11
Less than one-third of EU money allocated to support refugees went to them	11
What about Middle Eastern Refugees?	8
Bulgaria has provided exceptional protection for refugees	3
The EU treats Bulgaria like a colony for refugees	2

The major topic of "Political Actions/Government Policy" encompasses posts that discuss government positions or policies. Given the political crisis outlined earlier and the related sub-topics (Table 5) under "Economic", it is unsurprising that

the leading sub-topic is "Preferential treatment for Ukrainians shows current administration flaws". This narrative presupposes that the policy of supporting refugees has been designed and implemented by a flawed government, which could be perceived as inept, corrupt, or simply ineffective in communication and execution. Negative coverage peaked during the Petkov government's criticized response to the Ukrainian refugee situation in February and March 2022, which became a key factor in the anti-Ukrainian refugee disinformation narratives that emerged during this period. These narratives connect to previously discussed economic and social topics, portraying government policy as victimizing Bulgarian citizens in favor of Ukrainians and primarily concerned with appeasing US, NATO, and EU interests. Subtler forms of disinformation also emerged from mainstream political figures. For instance, a former Prime Minister utilized his opposition position to highlight his alleged achievements while simultaneously criticizing Bulgaria's current border security as inadequate. He further associated refugees with crime and murder, subtly reinforcing the notion that refugees/migrants inherently pose a national security threat. This representation is amplified by references to Azov Neo-Nazi groups and fears of a broader regional conflict with Russia.

Table 6. Historical sub-topics

Historical sub-topics	Number of posts
Pro-Russian sentiment among Bulgarians	78
Russian historical monuments vandalized in Bulgaria	26
Who helped Thracian refugees in 1913?	2

Table 7. Culture sub-topics

Culture sub-topics	Number of posts
Bulgarian culture is being Westernized	34
Ukrainians in Bulgaria are trying to rename streets/areas	32
There is a "dilution" plan involving Ukrainian refugees	14
Ukrainian's try to force their culture on Bulgarians	14

The narratives connected to the major topic of "Historical" (Table 6) reveal significant dynamics within disinformation discourses. A prominent sub-topic is "Pro-Russian sentiment among Bulgarians", which draws directly from the Russian perspective on US, NATO, and EU policies toward Ukraine and the broader region. These narratives typically depict Ukrainian refugees as disrespectful, deceptive, and supportive of Neo-Nazi groups. The perceived disrespect of Ukrainian refugees is further emphasized through the sub-topic "Russian historical monuments vandalized in Bulgaria", which frames these actions as direct attacks on Bulgarian history.

The major topic of "Culture" (Table 7) also reflects similar narratives, with sub-topics such as "Bulgarian culture is being westernized" and "Ukrainians try to force their culture on Bulgarians". These narratives suggest an existential threat to Bulgarian culture posed by Ukrainian refugees and their US, NATO, and EU allies, implying that Ukrainian refugees are part of a deliberate effort to dilute Bulgarian cultural identity. This approach seeks to elicit a strong and primal emotional reaction. On a more locally evocative level, narratives surrounding the Bessarabia Bulgarian ethnic minority in Ukraine claim that Ukrainian Neo-Nazis murdered ethnic Bulgarian engineer Ivan Milev in Odessa in 2014 due to his political views and advocacy for the Bulgarian language. Despite efforts by organizations like Fact-

Check Bulgaria (**https://xn--80abgvjd1bi0f.leadstories.com/hoax-alert/2023/08/fact-check-no-bulgarian-was-burned-alive-by-ukrainians-in-odessa-in-2014.html**) to debunk this claim, it has been propagated by members of one ultra-nationalist political party, which has been systematically gained seats in every election since November 2021. The narrative that Ukrainian refugees are disrespectful presupposes a standard of behavior that Bulgarians expect, positioning Ukrainians as failing to meet or below these expectations. The claim that Bulgarian culture is under threat presupposes an unfixed cultural identity that is vulnerable to external influences, framing Ukrainian refugees as agents of purposeful strategy of cultural dilution. The narratives uncovered here indicate that Bulgarian identity is currently unstable and influx, this insecurity is a key driver of this feeling of existential threat of "westernization".

4. The informational environment through the lens of hegemony

We posit that the ongoing political instability in Bulgaria, marked by frequent elections and unstable governments, can be understood in a very practical way through Gramsci's idea of "war of position". The examples highlighted in the data reflect a landscape with a deeply embedded legitimacy crisis, where established power structures face challenges from rival parties and a deep public disillusionment and fatigue with politics. The election trends, highlighted as recently as June 2024 where voter turnout was as 33% signal an election fatigued and polarized populace, mirroring the ideological battles Gramsci identified as central to the "war of position" [64].

Gramsci's theory posits that during organic crises like Bulgaria's political turmoil, competing political movements arise, challenging the entrenched corrupt order and perceived lack of true representatives for a particular ideological expression or democratic practices [64] Internal political groups are in turn harnessing these sentiments or frustration and disillusionment using false or misleading narratives preying on genuine structural issues. The failure of parties to form lasting coalitions reflects a failure to establish stable hegemony, as dominant classes struggle to secure consent from the governed. Consent is not secure because there is no fully accepted ideological basis for such consent. The fall of communism and Bulgaria's transition were both handled from the "top-down" and did not involve the correct levels of development of social consent or participation. This aligns with Gramsci's view that hegemony involves ideological leadership that resonates with the masses. The heart of the crisis in Bulgaria is a distinct lack of consensus on ideological direction for Bulgarian political discourse which oscillates between the centre-right and the hard-right – between pragmatic Euro-engagement and pro-Russian and nationalist attitudes. The local specificities such as those identified above within the economic, historical, social, policy and cultural aspects of those cleavages are clearly important to whether specific narratives are accepted. The Bulgaria - Ukrainian refugee case demonstrates through the uncovered topics and narratives, another example of the profound distrust within Bulgarian society towards the political establishment and their motives. These sentiments are clearly harnessed as a method of spreading

misleading information for the purpose of mobilizing public support for both mainstream and fringe groups, as well as external geopolitical forces.

The polarization of Bulgarian political discourse illustrates the impact of competing hegemonic projects, with factions working to articulate their visions for the correct direction forward for Bulgarian society, while undermining their opponents' legitimacy. This ideological struggle is directly evident in the electorate's growing scepticism towards traditional parties, indicating a shift in the hegemonic landscape [64] Understanding the Bulgarian case through the "war of position" thus provides insight into how we can expect these ideological conflicts to manifest in civil society, where cultural narratives and public sentiments are contested The unique susceptibility of Bulgaria to misleading or false information is in no small part a consequence of this ideological uncertainty and conflict. Rival factions laying claim to "genuine" Bulgarian identity, culture and values – while depicting rival factors as a threat or as untrustworthy or even traitorous. As we see from the examples above, as the political environment becomes more unstable and polarized, this language tends to get more extreme and frequent.

Gramsci's concepts of hegemony and the "war of position" offer a valuable framework for understanding Bulgaria's complex political dynamics. The crises marked by instability, lack of a consensus on Bulgarian identity and public disillusionment and distrust with established politics underscore the ideological struggles shaping contemporary politics. As the country's political instability shows no sign of abating, the issues of consent, legitimacy, and ideological conflict will continue to influence the political landscape, the informational environment and most importantly the Bulgarian people's efforts to tackle vital structural issues related to political, social and economic policies.

5. Conclusion

This paper presents a useful framework for dissecting the language employed in disinformation discourses, based upon Antonio Gramsci's concept of hegemony, discourse theory, and Natural Language Processing (NLP) analysis. The analysis of Ukrainian refugee-related disinformation provides insight into the structure and mechanisms of these discourses, as well as identifying important patterns of narrative manipulation, the key actors involved, and the emotional triggers used. The findings of this combined methodological approach demonstrate the potential to identify sources and spread of disinformation, as well as the strategies and tactics employed in influencing public opinion in the Bulgarian context. This research is only a starting point, and further research and refinement of the framework is necessary, but it is hoped that this approach will contribute to the discourse on how to combat disinformation and promote a variety of healthy and inclusive public discourses.

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