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War of the Words. The Online Conversation about NATO in Romania: Communicators, Content, Communities¹

Abstract

The Covid-19 infodemic has brought forth an intensification of disinformation and conspiracy narratives, especially in the online environment. Beside the public health implications, the geopolitical aspect is also relevant, since Romania, a member of the EU and NATO, has constantly been under pressure from a multitude of propaganda attempts meant to undermine people's trust in the West. The main goal of this paper is to explore the type of online information that the Romanian public is exposed to regarding NATO, an institutional actor representative for the Western model, specifically to assess the main communicators, content, and patterns of information dissemination. A dataset of Facebook mentions was created and filtered (n=9705) and visual network analysis was employed to build a NATO issue network. The main clusters of this network were analyzed to reveal that the two largest communities are structured according to a political cleavage, while an anti-Western media actor, Sputnik, controls a separate cluster, but its content infiltrates several others. Qualitative content analysis on a relevance sample of the most frequently distributed content was employed to evaluate both attitudes toward NATO (negative stances were identified in several analyzed documents) and the occurrence of conspiracy narratives (also a significant presence).

Keywords: social media, visual network analysis, conspiracy theories, Covid-19 pandemic, NATO

Introduction

The Covid-19 crisis has been a societal shock on multiple levels, impacting not only the health and wellbeing of individuals, but also entire social configurations, from the disturbance caused to the economic, healthcare and education structures, to the damage inflicted on social peace by anti-restriction protests and anti-vaccine movements. In the aftermath of the pandemic, whilst the medical burden is slowly diminishing, the other, presumably long-lasting effects, come to the forefront. The polarizing effect that the debate around vaccination brought or intensified in various societies is one such noteworthy effect, with politicization of the debate along ideological lines (Jiang et al., 2021); another is the impact that the increasing level of disinformation has on public trust in institutions and in geopolitical allies.

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Romania is an interesting case from this point of view and at this moment in time, considering its geographical and geopolitical position. The country has long been a firm ally of the West, perhaps the most unwavering in the region, and Romanian citizens' trust in the country's main geopolitical allies (EU, NATO, and the US) has been constantly high, but in 2019 a slight decrease registered, which in 2020, right after the initial pandemic shockwave, became an abrupt plunge – levels of trust in NATO, for example, fell from 65% in 2018 to 51% in 2020 (Center for Civic Participation and Democracy [CPD], 2021).

During the pandemic, disinformation and misinformation, as well as conspiracy narratives have been abundant in the Romanian public space, as part of the so-called *infodemic* that impacted the whole world (Ghebreyesus, 2020). Some of these narratives targeted Romania's traditional geopolitical allies, suggesting, for example, that European citizens cannot count on the democratic model which is failing while the authoritarian model is efficient, or placing the origin of the virus inside the Western space, in the US.

As suggested by several studies and public reports, the dissemination of these specific narratives has been encouraged by certain state actors, purposely to induce doubts and weaken trust in the West (Bentzen, 2020; European Commission, 2020; EEAS, 2020; US Department of State, 2020). Also, recent research (Onderco & Stoeckel, 2020) indicates that a penchant for conspiracy beliefs is a predictor for lower support in the West as a geopolitical ally. As a communication space lacking gatekeepers and much more prone to rule violation, the online environment has proven to be a fertile lab and launchpad for conspiracy theories, especially given the properties and capabilities offered by social networks, where anonymity and lack of accountability act as facilitators for the dissemination of unproven "facts", miracle "cures" or sensationalist pseudoknowledge (Introne et al., 2018). It is important to examine what happens in a moment of deep societal crisis, such as the Covid-19 pandemic, when the information environment becomes polluted with conspiratorial messages, some of which target or refer to the West.

This paper aims to look in-depth at representative areas of the online information ecosystem to explore the type of pressure the Romanian audience's geopolitical allegiance might be under, since, according to Reuters Institute Digital News report (Neuman et al., 2020), 83% of Romanians use online news sources, including social media, and 60% indicate social media as an explicit primary source of news.

Background

The potentially negative impact of social media platforms has been analyzed in several studies indicating that social networks favor emotion contagion (Kramer et al., 2014), contribute to the creation of echo chambers (Quattrociocchi et al., 2016), increase polarization (Van Bavel et al., 2021), are associated with the spread of fake news (Van Bavel & Pereira, 2018), false information and conspiracy theories (Mahl et al., 2021; a recent study – Buturoiu et al., 2021, shows that intensity of the belief that social media channels are useful for information purposes is correlated with belief in vaccine-related conspiracies; a study conducted in the early stages of the pandemic – Jamieson & Albarracin, 2020 – found a correlation between social media exposure and high levels of misinformation). Part of the echo chamber effect is also the users' tendency to reinforce their outlook by sharing content associated with certain views (Del Vicario et al., 2016). The dissemination of information on social media

sometimes leads to viralization of content, through specific tools such as sharing, and identifying the crucial actors that contribute to viralization in this networked space becomes imperative in order to understand the online communication environment around a specific issue (Shen & Kuo, 2014). When heavily disseminated content threatens to undermine democratic values, it becomes important to discover and understand the patterns of its spread.

The dissemination of content on social media is important and relevant from a geopolitical point of view because the amount and patterns of social media consumption in the current hyper-connected age underline its significant potential to modify mentalities and values (Castells, 2010). When the mentalities and values subjected to this pressure are those essential for the stability of a democratic regime, such as support for democratic values and the institutions that embody them (Almond & Verba, 1963; Foa & Mounk, 2016; Norris & Inglehart, 2019), this becomes a concern. Lewandowsky & Pomerantsev (2022) discuss an existing “tension” between the online information environment (defined by the leading platforms with their strategies and agendas, as well as the users’ ever-changing consumption patterns) and the democratic principles expressed through discourse and governance.

The main goal of this paper was to explore the type of information that the Romanian public is exposed to, in the online environment, regarding institutional actors representative for the Western model, and specifically to search for *patterns* in the way this information flows, to identify the main *communicators* and explore relevant *content*. The focus was one of the institutions which are most illustrative for this model, NATO – a pillar of Romania’s Euro-Atlantic commitment and one of its main geopolitical allies – and the way it was discussed on Facebook, the dominant social network used by Romanians (Facebook is the most used social media platform – Statista, 2021, and the second most used source of information, after TV – Statista, 2020) in order to evaluate whether misinformation and anti-democratic content play an important role in the way NATO is discussed in this online environment.

The particular dynamics of the information shared on social media, in a world “networked by the wireless Internet and marked by fast, viral diffusion of images and ideas” (Castells, 2021, p. 2), must be investigated with the aim of understanding how the information circulates, how it is spread and by whom, what kind of information propagates faster. This type of analytical lens favors a networked understanding of society, where we regard communicators not as equal and disjointed participants on impersonal platforms, but as connected actors linked in the same network created around each issue they contribute information to; some of these actors play key roles, potentially influencing others, and some of the information is privileged through superior diffusion and potential exposure.

A network view of the discussion around NATO on Facebook – regarding this as an “analytically informative issue network” (Krippendorff, 2019, p. 242) – can offer valuable insight into the flow of information and the actors that influence this flow. When investigating the larger conversation generated around NATO on Facebook, we can also look at its main facilitators, to identify the main communicators and the way information was disseminated from and around them. Directly derived from the interest of identifying the influential actors of this communication network are the following research questions:

RQ1. Who were the main communicators about NATO on Facebook, and how are these communicators connected?

RQ2. What is the most disseminated hyperlinked content (i.e., shared links included in Facebook posts) related to NATO and what is the attitude towards NATO in this content?

An important aspect related to the content disseminated on social media in the current infodemic context has to do with conspiratorial narratives – alternative explanations given to public events that involve secret strategies by colluding, powerful and malicious actors (Jolley & Douglas, 2014a; Abalakina-Papp et al., 1999 etc.). The impact of conspiracy theories on behavior, including social and political action, has already been documented by the literature. Studies like Swami et al. (2010) and Swami et al. (2011) found significant associations between conspiracy beliefs and negative attitudes towards authority, while the research of Abalakina-Papp et al. (1999) underlined the connection between predisposition for conspiracy theories and distrust of authority, as well as anomie and feelings of powerlessness. Exposure to conspiracy theories is correlated with reduced intention to engage in politics and seems connected to a “conspiratorial mindset’ related to political beliefs and intentions” (Jolley & Douglas, 2014b, p. 51). Furthermore, willingness to accept conspiracy-based explanations of events seems to stimulate non-normative political engagement, such as illegal actions (Imhoff et al., 2021). Those who display a tendency to adhere to coronavirus conspiracy narratives are also less likely to conform to government-mandated rules to fight the pandemic, as several studies have found (e.g., Freeman et al., 2020; Allington & Dhavan, 2020; Achimescu et al., 2021). A conspiracy mindset is also associated with reduced trust in science and experts (Jolley & Douglas, 2014a; Lewandowsky et al., 2013; Freeman et al., 2020).

Given the increasing amount of conspiracy narratives in the Romanian public space during the Covid-19 pandemic (Bângăoanu & Durach, 2020), when exploring the content of NATO-related communication on Facebook the need to identify conspiracy-related elements became obvious. Hence, the final research question:

RQ3. Are there conspiracy narratives within the most disseminated NATO-related content on Facebook?

Data & methods

The attempt to capture the landmarks of the Facebook conversation about NATO in Romania started with building a Boolean search expression to identify all mentions of NATO, in Romanian Facebook content, for a 13-month period – March 1, 2020 – April 1, 2021 – which included the “official” start of the pandemic, with the first cases registered in Romania and increasing public debate about the issue. A Boolean search query, which “specifies one category of textual units by the character strings that it must or must not contain” (Krippendorff, 2019, p. 227) is a tool regularly used in text mining to identify relevant information in vast textual databases.

Data was collected with the help of CrowdTangle, a Facebook-owned tool that tracks interactions on public content from Facebook pages and groups (CrowdTangle Team, 2021).

The resulted database (n=23.489) includes all the Romanian Facebook posts that mention NATO either in the actual text, or in the associated links, photos, videos etc., along with data regarding the interactions these posts generated on Facebook (such as the number of reactions, shares, comments), but excluding the text of the comments related to each post. This database including all NATO mentions for the selected period was processed to retain for analysis only the top 10.000 results filtered by the volume of total interactions (likes, comments, shares) generated on Facebook.

To identify the main communicators, as well as dissemination patterns – to understand and visualize how the posted content was distributed and circulated on Facebook, visual network analysis was employed – a method based on social network analysis which uses points (nodes) and lines (edges) for the exploration of “relational datasets” (Venturini et al, 2021, p. 1).

Network analysis is a method with historical roots in mathematics and sociology, which has developed as an interdisciplinary technique influenced by several fields (Otte & Rousseau, 2002) and has become increasingly used in the social media era to study interaction processes; it is based on the complex visual representation of relationships between connected symbols (Hansen et al., 2020); organizing information about these connections as a network map not only helps better understanding the shape and main actors of the network, but the specific calculations based on the underlying data can offer further insight into the characteristics of the network and the main influencers inside it. Networks are organized as ties or edges between nodes or vertices, and the focus is on the strength and significance of the connections inside the network (Hansen et al., 2020; Otte & Rousseau, 2002), since looking at connections and interactions between the components of a network can bring clarity about the network as a whole (Barabasi, 2020). For example, the users of a certain campaign hashtag on Twitter become nodes of the same network defined by the communication around that topic, and the frequency and quality of their interaction with each other while taking part in this virtual conversation defines their roles within this network; a user who is heavily retweeted by other users is a more influential node within the network; users who communicate more with each other compared to the rest of the network become part of the same clusters inside the larger configuration.

Due to the information exchanged and shared in a hyperconnected environment like social media, Krippendorff (2019) even considers that “studying how texts are networked in the Internet [...] is a form of content analysis” (p. 240).

Specifically, the focus here was on shared *links* included in Facebook posts mentioning NATO and *who* propagates them most often in this NATO issue network.

The data was processed and prepared (n=9705) for the construction of a bimodal network with 2 sets of nodes – authors of Facebook posts (either pages or groups), as well as shared links (i.e., hyperlinked content incorporated in these Facebook posts), using Gephi, an open-source software for graph and network analysis (Bastian et al., 2009); the edges – the relations between these nodes – represent the connections between pages/groups and their posted content. Facebook data extracted with the help of CrowdTangle and processed and visualized with Gephi allow the researcher to study how links have spread on Facebook pages and groups (Shiffman, 2021), and furthermore, network metrics calculated within this tool allow the interpretation of the network structure. Recent academic articles (e.g., Bruns et al., 2020; Soares et al., 2021), conference papers (e.g., Bruns et al., 2021) and books (e.g., Alperstein, 2021) use this combination of extracting, processing, and visualizing data to infer meaning through network metrics and visualizations. Metrics calculated within the network analysis tool (out-degree, in-degree, betweenness centrality) are used in current studies to detect patterns of information flow within networks (Himelboim et al., 2017); for example, in-degree is used to generate an approximation of visibility in networks (Venturini et al., 2021); these metrics were used here to identify the top 25 most-connected/prolific communicators within this network, as well as the top 25 most disseminated links; a clustering algorithm supported by Gephi (Blondel et al, 2008) was used to recognize communities inside this network (groups of nodes that tend to connect with each other more likely than with other nodes – Barabasi, 2020).

Projecting the two-mode graph to a unimodal network was an additional method employed to gain further insight into this theme. It involves a conversion of the initial network by transforming nodes from the second set (URLs) into edges between nodes in the first set (pages or groups) that have co-shared them, using the Gephi Multimode Networks plugin (Kuchar, 2013). Thus, a link to a news article posted by two nodes representing Facebook pages, which was itself a node in the initial network, becomes an edge (a connection) between the two pages, in the projected unimodal network. This transformation allows an understanding of the network by looking at direct ties between communicators based on their shared content, enabling the calculation and interpretation of relevant network metrics, such as betweenness centrality, which indicates nodes with a strategic placement, that might enable them to facilitate or intermediate the diffusion of messages (Freeman, 1977).

To identify the nature of the NATO attitudes in the most disseminated content within the NATO issue network, as well as the nature and relative size of conspiracy-related content, the list of the 25 most disseminated links was the subject of context qualitative content analysis (Mayring, 2014). These 25 links were considered a *relevance sample* as described by Krippendorff (2019), which is not probabilistic and is “not meant to be representative of a population of texts [...] rather they are a population of relevant texts, excluding the textual units that do not possess relevant information” (Krippendorff, 2019, p. 123); according to the author, this type of sampling for content analysis is being increasingly used for texts originated on the internet, due to the high quantity of irrelevant texts. This solution was chosen because this sample was obtained through applying successive relevance filters, that indicate these were the URLs most circulated in relation to NATO mentions; analyzing them is more relevant for the research purpose than analyzing a probabilistic sample of documents that might have included documents with a much lower probability of reaching large audiences.

The unit of analysis was the entire *document* (communication entity) which hosted the NATO mention, constituted from the linked content (URL) and the Facebook post which originally included it (plus the Facebook post that shared the initial post, when this situation applied). For each of these 25 documents, several types of descriptive information were used: the *in-degree*, a metric resulted from the network analysis, indicative of its distribution within the network; the number of *appearances* in the dataset (i.e., the number of times each link appeared in Facebook posts that mention NATO); and the total number of Facebook *shares* obtained by each document (calculated by summing the number of times each post containing a particular link was shared).

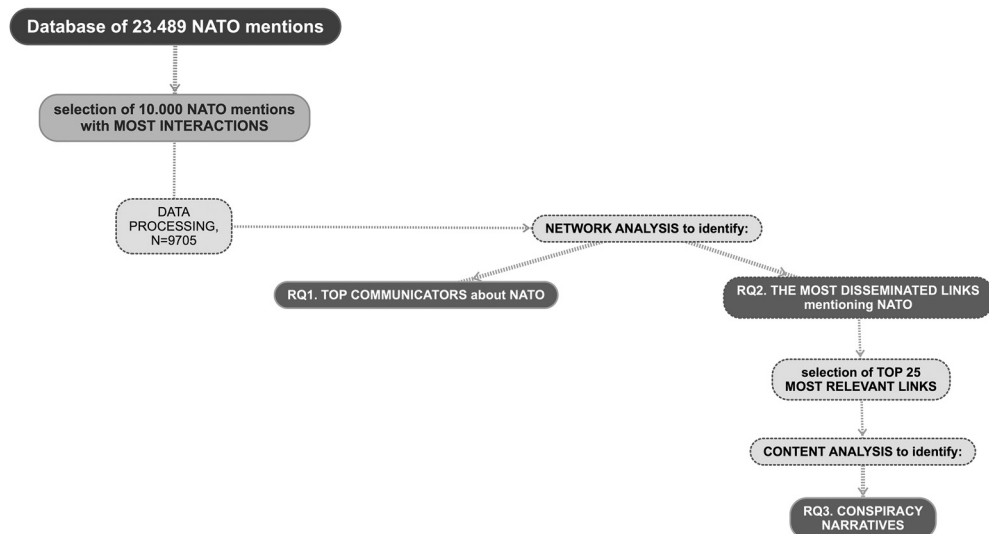
This filtered dataset (n=25) was analyzed to evaluate (1) *the attitude (tonality) towards NATO*, as well as (2) *conspiracy content*, which was further categorized to illustrate the distinction between *anti-Western* and *pro-Western conspiracy theories*.

The attitudes towards NATO were assessed using 3 categories – *pro-NATO*, *anti-NATO* and *circumstantial*; the evaluation put primary focus on the immediate context or text environment (Mayring, 2014) of the NATO mention (which could be situated either in the Facebook post or linked content).

Secondly, the presence of conspiratorial content was evaluated by applying a coding scheme first proposed by Uscinski & Parent (2014), which is at the center of what is considered to be a key study on conspiracy theories (Van Prooijen, 2018). Thus, according to the authors, to label a text as proffering a conspiracy theory, it would need to include simultaneously four elements: “(1) a group (2) acting in secret (3) to alter institutions, usurp power, hide truth, or gain utility (4) at the expense of the common good” (Uscinski & Parent, 2014,

p. 58). The group is defined very permissively by the authors, to include “any entity, from a collection of countries, a single country, an institution, a party, a religious sect, a trade union, interest group, to a small band of unaffiliated collaborators” or even “a single conspirator” as long as the author of the text implies collaboration with others to “orchestrate the plot” (Uscinski & Parent, 2014, p. 181). Using this scheme, the 25 documents were coded for the presence or absence of conspiracy content, and also for the presence or absence of the 4 elements defining a conspiracy theory (either in the linked content, or in the Facebook post sharing it).

Figure 1. Data processing steps and methods used in this paper

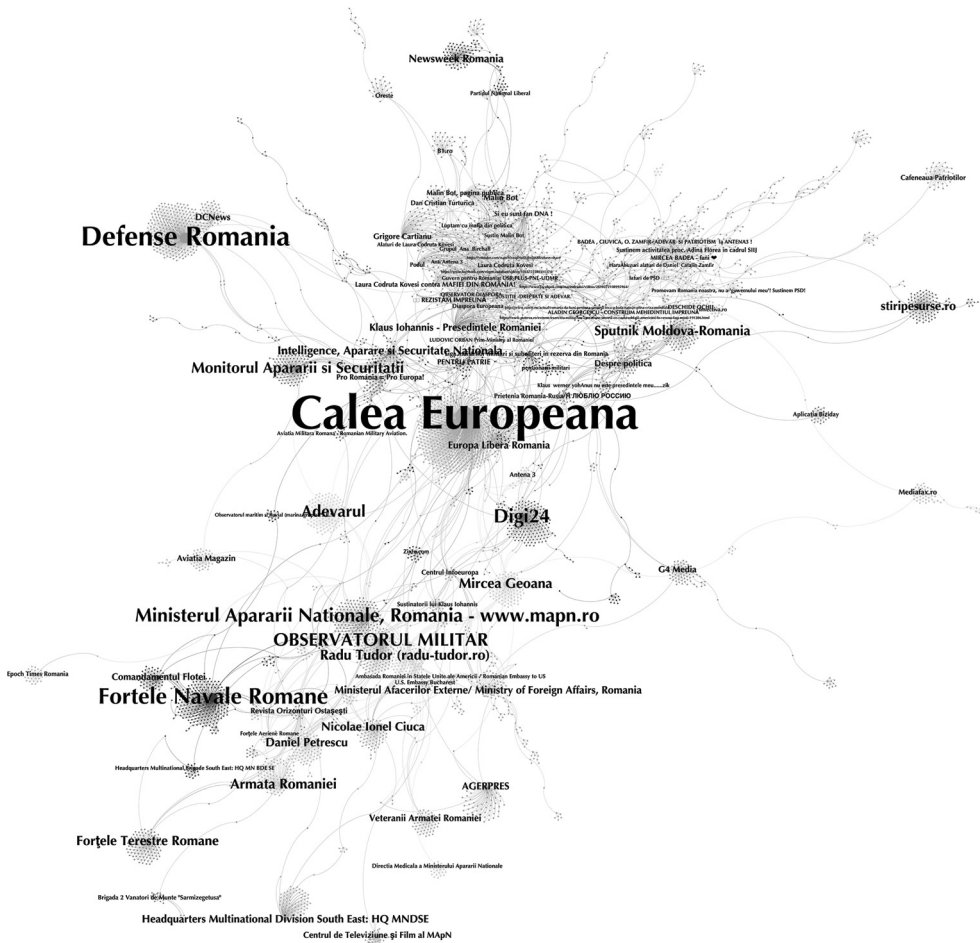


Findings

The size of the Romanian conversation around NATO on Facebook is limited, when compared to other key geopolitical actors such as the EU (the NATO search generated 23.489 results, while applying a search query to identify the number of mentions regarding the EU for the same period of time returned 208.409 results, and a query for the US returned 225.386 results), but intensified in the first pandemic year compared to the previous year; applying the search query for the period from March 1st 2019 until April 1st 2020 obtained 21.182 results –which marks an increase of approximately 10% for the period analyzed in this study.

The next step in the analysis was an exploration of content dissemination patterns and of the role communicators play. The method used here was visual network analysis (Venturini et al., 2021), which renders the information around an issue in the shape of a network that connects, in our case, message emitters, as well as messages, based on their interaction, thus allowing for the identification of the most relevant actors within the network, the most distributed content, as well as the communities formed within the network based on the similarity of the shared content. To this end, only Facebook posts which included links were retained in the analyzed database, since the focus was the distribution of *links* included in Facebook posts mentioning NATO.

Figure 2. The network of Romanian NATO mentions containing links on Facebook (giant component only – the most connected area of the network)



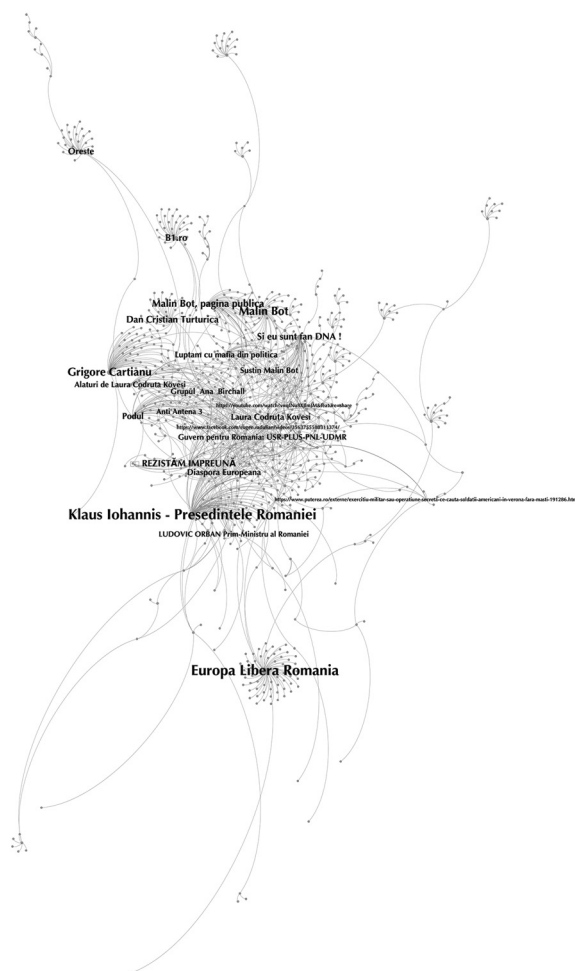
Note. The nodes, as well as font, are sized proportionally to out-degree, emphasizing prolific communicators. Only nodes with a degree of at least 15 are labeled. The colors indicate the different communities or clusters the network was segmented into by the clustering algorithm. The edges are also colored by the source node.

Looking at graph metrics, we can see that the clustering algorithm (Blondel et al, 2008) identified 1315 communities within the network, and the modularity coefficient (0.928) seems to indicate the fact that the groups have distinctive characteristics. The entire network includes 9402 nodes and 8953 edges. The image in Figure 2 depicts only the giant component of the network (excluding from the visualization the isolated and loosely connected nodes), thus showing 58.68% of the nodes and 70.77% of the edges. Each different color identifies a separate community, formed by pages and groups that posted similar links, as well as the links themselves; each cluster can be understood as a group of communicators and a coalition of messages specific to that group (Alperstein, 2021).

By using this type of processing and visualizing of the data, we obtained several types of useful information. Visualizing the data as a network map allows for clearer understanding of its patterns of structuring into *clusters of communicators and content*.

The largest cluster within the network – comprising 836 nodes and 1120 edges, representing 8.85% of the entire network – is dominated by pro-NATO pages and groups, dedicated to pro-Western politicians and journalists.

Figure 3. The largest cluster within the NATO issue network, including pro-Western pages and groups



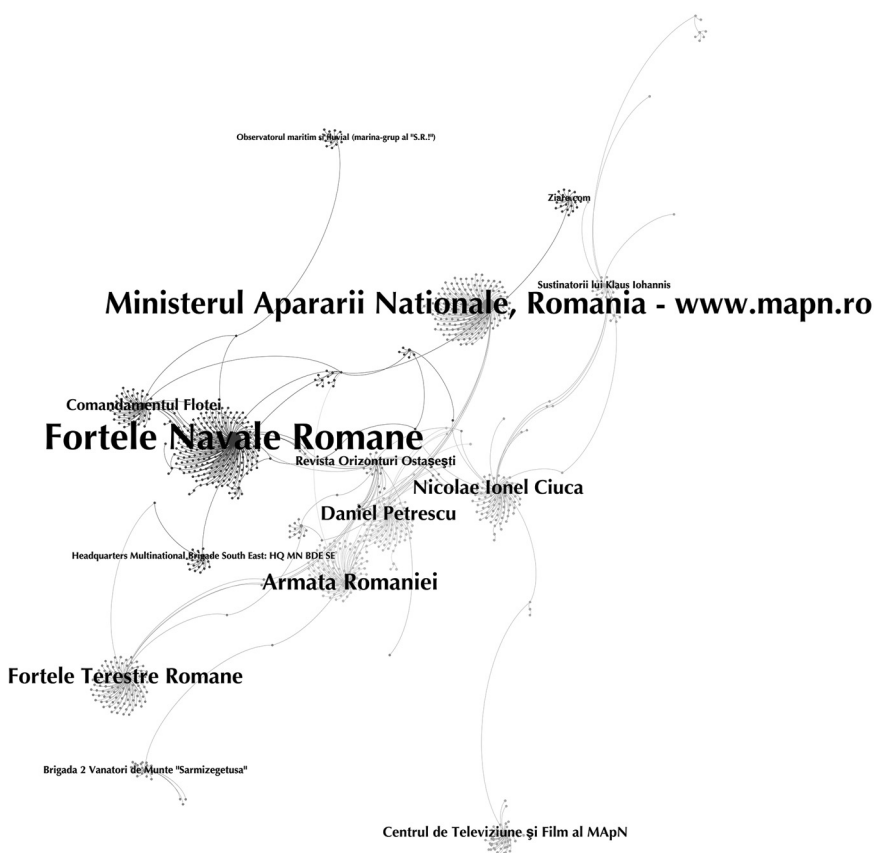
The most active communicators within the second largest cluster (which has 447 nodes and 533 edges, representing 4.71% of the network) include anti-governmental pages and fan groups rallied around the (then) main opposition party PSD and Antena 3 news TV station (although two official pages of this media outlet belong in a pro-NATO group with NATO official Mircea Geoana), but also neutral, informative pages like Agerpres.

The third largest cluster (437 nodes, 436 edges, representing 4.61% of the network) is built almost entirely around Calea Europeana – the Facebook page of the pro-Western news outlet with the same name is its main node by out-degree, and the links distributed within this community are also dominated by this platform.

The fourth largest cluster (372 nodes, 390 edges, 3.91%) contains the Facebook page of the Foreign Affairs ministry, as well as the pages of various Romanian embassies and consulates abroad. The links that are part of this cluster include official communication, as well as articles from pro-Western news platforms.

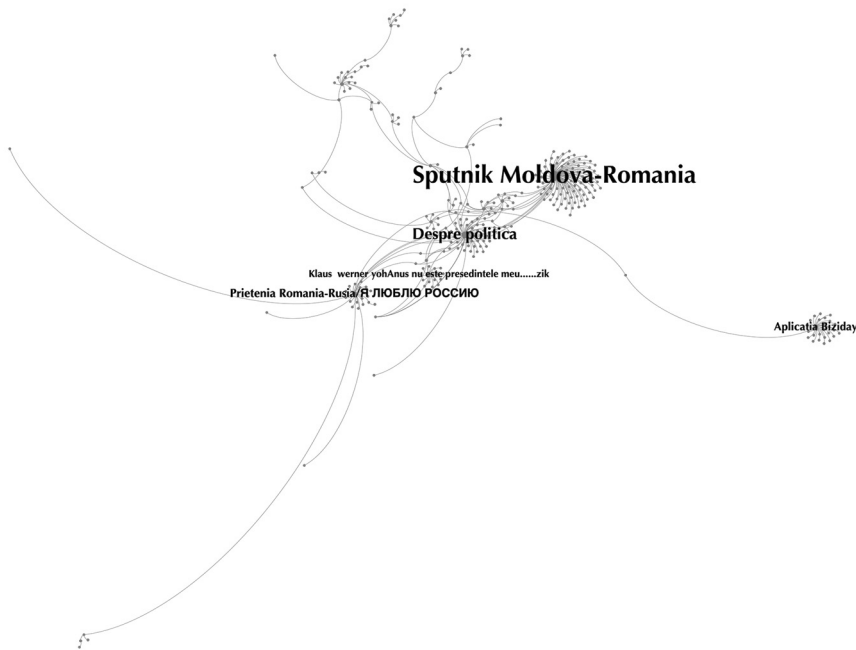
The fifth cluster (326 nodes, 337 edges, 3.42%), as well as the sixth (314 nodes, 318 edges, 3.3%) include military communicators – several branches of the military forces (naval forces, fleet commandment, Headquarters Multinational Brigade South East, military schools), the Defense ministry and other military organizations and media platforms. If we manually group them together with other two smaller clusters with similar content, all four compose a military community representing 10.33% of the network, with a total of 971 nodes and 1013 edges.

Figure 4. The military “super-cluster”, resulted by manually uniting 4 separate clusters containing military-related communication



There are only two other clusters which represent over 3% of the network each (all other remaining clusters have sizes below this threshold). One is constituted around a pro-Western military news platform, which also contains other media voices (306 nodes, 320 edges, 3.21%). The other, the 8th largest cluster in the network (288 nodes, 311 edges, 3.06%) includes mostly pro-Russian communicators and content; its main node is the Romanian Sputnik Facebook page, but there are also other pages and groups which promote Russia-related content such as *Despre politica*, *Prietenia Romania-Rusia*, *Prietenii lui Vladimir Putin*, as well as links (mostly from the Sputnik website, but also from websites like *vestidinrusia.ro*, which disseminates news from Russian official sources). 107 of these nodes are links to articles published on the Romanian Sputnik platform (but not all Sputnik links are in this cluster, since some were shared by pages in the larger communities). Interestingly, a separate sub-cluster within this community is constituted of the Biziday Facebook page and links from this pro-Western news platform, mostly referring to weapons-related issues concerning either Russia, NATO, or both (there are 24 such links); its presence in this cluster is explained by link-sharing behavior of other pages that shared its content while also sharing Sputnik content. The illustration in Fig. 5 showcases this cluster.

Figure 5. The Sputnik cluster



Looking at the node-level metrics for the entire network, a selection of the top nodes by out-degree showcases the fact that Sputnik is indeed present among the top 25 information disseminators in the NATO reference network (see Table 1).

Centrality measures offer valuable information, especially the one used in this analysis, degree – which indicates well-connected nodes (Scott, 2017). Specifically, the out-degree metric calculated in the network analysis tool and then used to generate the visualization indicated the most connected nodes in the network – in this case, of a bimodal network, these

are the pages and groups with the most active link-posting behavior, out-degree centrality being an indicator of the “outreach of the user to the community” (Hansen et al., 2020, p. 167). Thus, when looking at the ranking of nodes by out-degree (Table 1), we see the main pages and groups that disseminated the highest number of NATO-mentioning links.

Table 1. Top 25 nodes by out-degree – the most prolific sources in the dataset

	FACEBOOK PAGE / GROUP	DESCRIPTION	NO. APP.*	NO. TOTAL INTER.**	OUT-DEGREE
1	Calea Europeana	Pro-Western news website	433	46447	433
2	Defense Romania	Military news website	235	46873	235
3	Fortele Navale Romane	Romanian Naval Forces	187	162082	187
4	Digi24	Pro-Western news TV station	155	46094	155
5	Ministerul Apararii Nationale, Romania – www.mapn.ro	National Defense Ministry	153	207849	153
6	OBSERVATORUL MILITAR	Official Defense Ministry weekly	145	23846	144
7	Adevarul	National news website	126	12025	126
8	Monitorul Apararii si Securitatii	Military news website	116	4837	116
9	Radu Tudor (radu-tudor.ro)	Pro-NATO influencer	112	30588	105
10	Armata Romaniei	Armed forces defense staff page	103	51725	103
11	Mircea Geoana	RO deputy secretary general of NATO	102	70410	102
12	Sputnik Moldova-Romania	Pro-Russia news website	98	8694	98
13	Forțele Terestre Romane	Romanian land forces	96	37001	96
14	stiripesurse.ro	National news website	86	6617	85
15	Daniel Petrescu	Chief of defense staff	86	46049	83
16	Nicolae Ionel Ciuca	Defense minister	84	83409	83
17	Intelligence, Aparare si Securitate Nationala	Military & intelligence news Facebook group	82	3181	80
18	Newsweek Romania	Pro-Western news website	80	15659	71
19	Headquarters Multinational Division South East: HQ MNDSE	NATO military body	71	11148	71
20	Ministerul Afacerilor Externe/ Ministry of Foreign Affairs, Romania	Foreign Affairs ministry	73	8755	69
21	Klaus Iohannis – Presedintele Romaniei	Facebook group dedicated to the Romanian president	78	15581	65
22	Europa Libera Romania	Pro-Western news website	65	8053	64
23	AGERPRES	National news agency	64	2796	64
24	Comandamentul Flotei	Romanian Fleet commandment	58	12078	58
25	Veteranii Armatei Romane	Official army veterans page	56	25478	56

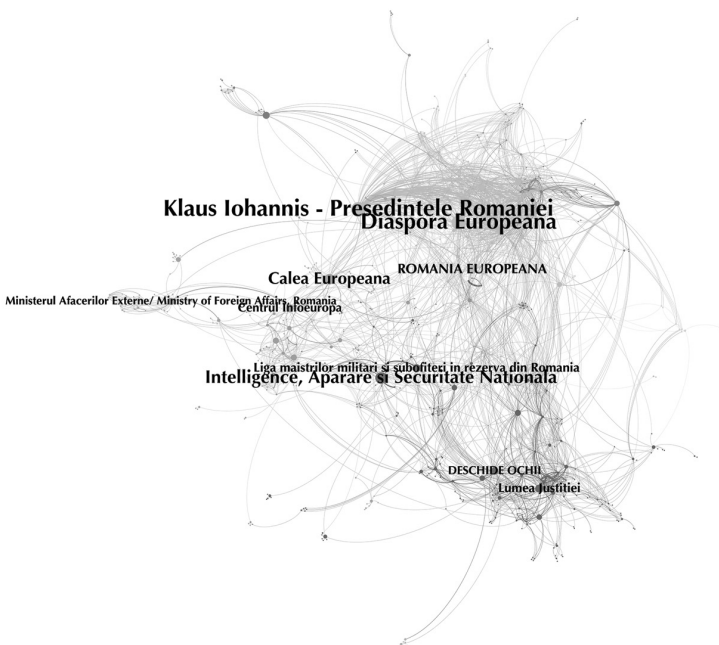
* Number of appearances (number of times the Facebook page or group appears in the dataset)

** Number of total interactions (the sum of all interactions – likes, shares, comments) generated by all posts in the dataset by these pages/groups

The list is dominated by Facebook pages of pro-NATO or generally pro-Western media outlets, institutions, institutional/political leaders and influencers, plus a large Facebook group dedicated to supporting the Romanian president and a smaller Facebook group focused on military and intelligence news. However, the presence of a significant anti-NATO voice – the Sputnik page – is certainly noteworthy and points to the successful efforts of this anti-Western voice to be part of the NATO-related conversation on Facebook in Romania. Sputnik occupies 12th place by out-degree (its connectedness in the network, in this case the number of circulated URLs related to our theme of interest). Analyzing the number of total interactions that its posts referencing NATO generated, the figure is less impressive.

After transforming the network into a unimodal version that contains only direct ties between communicators, the resulted unimodal network has 2031 nodes and 3370 edges. There are 4 relevant communities, echoing some of those discovered within the bimodal version: two larger clusters with pro-Western sources and opposition sources, respectively; a cluster including military communicators, and one that groups diplomatic sources and pro-European media. The density of connections is much higher in the pro-Western cluster, but the anti-governmental community includes (in a peripheral area) Sputnik and other pro-Russian communicators. Figure 6 showcases the most connected area of the unimodal network, processed to highlight the 10 nodes that have the highest betweenness centrality scores, which can be considered influencers connecting separate areas within the network. Pro-Western communicators are dominant here; only 4 of the most 25 prolific sources in the bimodal network have high betweenness scores in the unimodal projection – 2 groups, a media outlet, and an institutional page. Sputnik is not on this list – despite its efforts to generate high-volume content, its impact is not considerable, although we can find it among the 10% most connected nodes (measured by weighted degree).

Figure 6. Unimodal network (giant component only); only top 10 nodes by betweenness centrality score are labeled



Content analysis performed on the relevance sample of 25 relevant documents containing the most disseminated links in this network revealed a significant presence of anti-NATO content. After coding the content of each document, we also grouped the documents in several categories and compared the data that track their diffusion, first looking at the sum of *appearances* and *shares* gathered by pro-NATO documents compared to anti-NATO documents.

There were more *anti-NATO* documents in the analyzed sample (11 documents, compared to 8 – in the *pro-NATO* category and 6 in the *circumstantial* category). The sum of *appearances* for documents in each category also points to the superiority of the anti-NATO category, which gathered a total of 149 appearances, compared to the 113 appearances in the pro-NATO category. Looking at the number of *shares*, a noticeable superiority is obvious for the anti-NATO content, but the variability within each category is also evident.

Table 2. Content analysis: pro-NATO vs anti-NATO attitudes

TYPE OF REFERENCE	NO. OF DOC.	EXAMPLE	TOTAL APP. (SUM)
PRO-NATO , of which	8		113
<i>risk-evoking</i>	6	"a sample of an AUR 'patriot' who would want us out of NATO to 'avoid enraging the Russians'"	87
<i>implicit</i>	1	"The Russians sent by Putin to Italy 'fought' Covid-19 only around NATO bases. 'Most were GRU officers'"	15
<i>benefit-evoking</i>	1	"Coronavirus is a global enemy for all countries, either from Asia, from the East, or from the NATO-defended West"	11
ANTI-NATO , of which:	11		149
<i>implied attack</i>	4	"During a full global crisis, Romania pays money and builds another NATO base!... [...]. It is well-known that Romania obeys any NATO or US request – because they 'ensure our security' [...] defining Romania as a militarized and defended country – not sure against whom – but certainly NOT against people trafficking, drugs, minors prostitution – and lately completely defenseless in the face of a virus"	59
<i>direct attack</i>	3	"The US, CIA, Soros (those who led the NATO INVASION in December '89!)"	33
<i>collective accusation</i>	2	"We were wrong to believe that America, NATO and the EU want what's best for us"	32
<i>contextually negative</i>	2	"George Simion: It's not right that we are on our knees in front of EU and NATO, instead of standing straight like the Polish"	25
CIRCUM-STANTIAL	6	"We will remain in history as the only EU and NATO member that would have experienced a coup"	76

Looking at the content of these documents through a contextual qualitative approach (Mayring, 2014), it is noteworthy that in the year of the pandemic debut, none of these most-disseminated links are directly related to NATO involvement in helping Romanian authorities contain the crisis or with any other action initiated by NATO or message related to NATO's positive impact. But we must be cautious with this line of interpretation, since here only disseminated *links*, not larger *issues* were analyzed (to have a better estimation regarding the po-

tential exposure of an issue, we cannot base it solely on the most disseminated link in our database, but on the cumulated effect of several links reflecting the same issue).

At the same time, in the 9th place in the ranking of links by in-degree, we find an article from the Romanian Sputnik platform, titled “*In the full midst of a world crisis, Romania gives money away and builds another basis for NATO!...*”, with an obvious anti-NATO tone; it received the highest number of shares on Facebook (2022) among all links in this sample. The same main subject and anti-NATO tone can be found in another link from a different website, in the 5th place. These two documents gathered a combined number of 29 appearances (which means they were included in 29 Facebook posts) and a total of 3169 shares (summed up from all the Facebook posts they were included in).

This is a variety of *implied attack*, which constitutes the most frequent type of anti-NATO narratives in the analyzed dataset; the institution is not explicitly accused of a wrongdoing, but facts or allegations related to certain events or developments are presented in such a manner – using innuendoes, juxtaposition of information, even punctuation strategies (question marks which avoid categorical statements but nevertheless convey their intended information) that its “harmful” influence becomes obvious to the reader.

Not all documents coded as anti-NATO content involve overt negative approaches. Since we used a context content analytical approach, we looked at the immediate context surrounding the NATO mention, as the objective of the paper is to apprehend the context in which the Romanian public is exposed to mentions of NATO, even if this institutional actor is not the main subject of a Facebook post or news article. Thus, a distinct category of anti-NATO documents includes *contextually negative mentions*; for example, in the 8th place in the ranking of links we find an article from a pro-Western news outlet, about a mayor who covered the city hall building with a banner containing an explicitly anti-NATO slogan, which is quoted in the title of the article (and also in the photo illustrating it). Whilst the Facebook posts that include the link focus on criticizing the political background of the mayor, the fact remains that the title of the hyperlinked article contains a (quoted) explicit insult against NATO. Another such example refers to an article published on a different pro-Western platform, which quotes (including in the title) an anti-NATO stance of a populist politician.

The third category revealed by the analysis includes *collective accusations*, where several foreign actors (NATO, the US, the EU) are referenced together, in lengthy tirades against the forces that “control” Romania and have “brought poverty” to Romanians. There are two such documents among the 25 analyzed, and they contain conspiracy narratives, as well.

Analyzing the weight of the NATO mentions, it is noteworthy that NATO was categorized as a *central actor* (either alone or collectively with others, such as the EU or the US) in 10 of the analyzed documents, and 9 of these are anti-NATO references.

As for the pro-NATO mentions, most of them (6 out of 8 documents) are politically charged messages evoking political figures that “threaten” Romania’s relationship with NATO, thus the main type of favorable stances are not featuring NATO as a central subject, and the benefits brought about by this relationship are only inferred, even though they are regarded as unquestionable. A second type of pro-NATO messages are even more vague, implying a pro-NATO attitude through negative references to NATO’s perceived enemies. The only outspokenly positive reference, which evokes an actual benefit of Romania’s being part of NATO, is found inside a longer message by the (then) Defense minister who refers to “the West defended by NATO”.

Secondly in the content analysis, the focus was on the amount and characteristics of documents containing conspiracy narratives, further categorizing them into *anti-Western* and *pro-Western*. Conspiracy content was identified in 8 of the 25 analyzed documents, and the documents in this category gather a slightly larger mean number of appearances compared to non-conspiracy documents.

Examining the narrative structure and the typologies of alleged actions attributed to malevolent actors, little variety was found, with a strong focus on the theme of *foreign powers conspiring with Romanian politicians* for various forms of control over the country – seven of the 8 conspiracy narratives identified in the sample are variations of this motif.

Table 3. Content analysis: conspiracy narratives

TYPE OF CONSPIRACY	NO. OF DOC.	EXAMPLE	TOTAL APP. (SUM)
PRO-WESTERN	2		32
<i>foreign power complicit with Romanian politicians against the West</i>	2	“Putting together the pieces of this puzzle, we see a big picture that shows us these elections are the moment when Russia is trying to control us through our own Parliament, with an invasion of parties and candidates that can afterwards form an anti-EU, anti-NATO majority”	32
ANTI-WESTERN	6		82
<i>foreign powers complicit with Romanian politicians to control country (POLITICALLY)</i>	3	“Soros is the CIA boss (under the cover that he uses his own money as a global magnate!) and the NGOs he pays (from the money of the State Department-CIA) are, entirely, espionage agencies that control governments undesirable to the US. In Romania, the so-called NGOs were created and financed to trigger the NATO INVASION (not a revolution as proclaimed!) from December ‘89”	33
<i>foreign powers complicit with Romanian politicians to control country (RESOURCES)</i>	2	“How are we living better now, when we pay for our electricity to the Italians, the Germans, the French, we pay for our gas to the French, the Czechs, the Germans, we pay for our water to the French [...] all these are our products. I want to awaken the people’s feeling of repulsion towards those who could sign these away”	32
<i>Covid-19 as a smokescreen</i>	1	“Military exercise of secret operation? What are American soldiers doing in Verona, WITH NO MASKS?”	17

It is interesting to note that the two identified pro-Western conspiracy narratives also fall into this category – both documents (Facebook posts) are focused on YouTube videos by a pro-Western influencer who alleges a complex plot orchestrated in Russia and involving an extremist Romanian party with the objective of removing Romania from the EU and NATO. Among the anti-Western conspiracies, there are two types of sub-narratives involving foreign control over Romania – one more abstract (*political control* – evoking Romanian political leaders as “slaves and traitors endorsed by foreign support in leadership roles”), another more descriptive (control over Romania’s *resources*).

Regarding the array of consequences of alleged conspiracies, the conceptual range varies from concrete accusations (like big prices for utilities driven up by corporations that exploit

Romania's natural resources) to more abstract ones, in the sphere of values (betrayed people, destroyed traditions) and even historic ones (referring to the Romanian revolution in 1989 as a "NATO invasion" orchestrated by Soros and CIA). There are cases when several of these consequences are listed in the same texts, just like 11 different conspirators were identified in the 8 documents classified as containing conspiracy narratives. One of the explanations stems from the fact that some of the documents in case contained long "exposes" or comprehensive monologue-style inventories of actors that have conspired to "hurt" Romania and the Romanian people; for example, the second most distributed document in the network (appearing in 18 Facebook posts) is a detailed description of all the wrongs done to the people by an association of "tyrant barbarians from institutions", "foreign terrorist mobsters", "mass media villains" and others – among other evils listing the "loss of sovereignty" brought by NATO and EU integration.

There is only one conspiracy narrative directly anchored in the reality of the Covid-19 pandemic, and it is an interesting case since the link leading to that text is no longer available due to governmental action against several websites accused of purporting coronavirus-related fake news (Vasilache, 2020). The article is titled *"Military exercise or secret operation? What are American soldiers doing in Verona, WITH NO MASKS?"* and the main elements of its scenario can still be consulted on several Italian websites (e.g., Dinucci, 2020), where they seem to have originated. This particular link, as well as others that seem to have distributed the same content, were among the top viral links on Romanian Facebook in the week of their publishing (March 9-15), according to the leading Romanian online monitoring website (Zelist, 2020). By computing own data related to the exposure of this link, we find that it was included in 17 Facebook posts, which were shared on Facebook a total of 1070 times, gathering a total of 1948 interactions (likes, shares, and comments) – interestingly, it was also one of the most visible links in the largest, pro-NATO cluster of the network. While the Facebook posts distributing the link to the article stress on the fact that NATO soldiers use no medical equipment to prevent coronavirus spread (thus mainly accusing NATO of contributing to the amplification of the pandemic), the title of the article directly invokes a conspiracy theory, referring to a "secret operation".

The fact that the 4th most disseminated link mentioning NATO not only contains a conspiracy narrative, but was also officially debunked as fake news by the authorities, points to the dangers posed by viralization of disinformation, the speed with which this phenomenon occurs on social media (the link was posted on Facebook on March 13, the authorities shut down the websites on April 23), and also underlines the threat posed by fake news that are not obvious in character, but incorporate pieces of factual information which are modified or framed to "involve negative manipulations designed to deceive" (Corbu et al., 2021, p. 76). This risk is magnified by people's tendency to disregard the impact of fake news, believing that others, and not themselves, are more susceptible to be influenced by fake news (Stefanita et al., 2018). The causes, as well as the consequences, of such behavior, the underlying mechanisms that enable people's tendency to give credit to (and contribute to the spread of) this type of negative content certainly deserve further exploration through sociological research to understand motivations and correlating factors.

Conclusions

By visualizing the conversation about NATO on Romanian Facebook as a network and analyzing its metrics and characteristics, it can be noticed that it is structured in several separate spaces of discussion. The 2-mode network facilitates an interpretation of communities comprised of both *communicators* and *content*. The two largest clusters where this conversation develops seem to be structured on political/ideological terms – one consisting of pro-governmental communicators and pro-NATO content, occupying almost 10% of the network, the other (much smaller compared to the first – less than 5%) consisting of opposition pages and groups that tend to disseminate more anti-NATO content and conspiracy theories. The several smaller clusters formed around military communicators and content are rather separate from the others and from each other, rarely distributing similar content – even though, if put together, they would constitute the largest community in the network (over 10%). The communicators that post the largest amount of NATO-mentioning content (two pro-Western news platforms specialized in European affairs and military news, respectively) don't significantly distribute their sizeable content in other communities, although the unimodal projection, showcasing only communicators, reveals that one of them is well-placed to connect different areas of the network. The clusters are not hermetically separated and information flows between them, an observation proven by the fact that we can find an anti-NATO link containing a conspiracy narrative among the most distributed content in the pro-Western cluster.

The network metrics revealed that one of the most connected communicators that have mentioned NATO throughout the first pandemic year is Sputnik, the official voice of the so-called “Russian propaganda”. The added value of network metrics used here (especially out-degree and weighted degree) is important, since this relevant conclusion regarding the presence of an anti-Western influencer among the most connected/prolific communicators mentioning NATO could not have been reached only by looking at raw data. This communicator's position reflects not only its capacity of producing content (links), but also its connection to several other groups and pages that regularly share its content, some of them seemingly dedicated to promoting anti-Western and pro-Russian content. Another significant discovery was the fact that Sputnik links (articles) were strongly disseminated in other clusters of the NATO issue network, as well – most importantly in the second-largest, opposition cluster. Due to this fact, in the unimodal projection of the network Sputnik is placed inside the anti-government community.

After performing a rigorous selection to identify the most disseminated content in the dataset, qualitative content analysis applied on this relevant selection of documents revealed that some of the most circulated links containing NATO references include either negative references about this institution or anti-Western conspiracy narratives. Qualitative analysis was invaluable in this respect, especially due to the particular structure of the analyzed material (a document – our unit of analysis – was composed of several elements that all needed to be evaluated). A third of the analyzed sample, which contains the most disseminated URLs in the Romanian conversation mentioning NATO and the texts of the Facebook posts containing them, include conspiracy theories, and their power of spreading (measured through Facebook sharing) seems to be superior when compared to their non-conspiracy counterparts. The dominant conspiratorial narrative identified in the analysis revolves around the *foreign powers controlling Romania* motif, where NATO is evoked as part of a collective actor, together with either the EU, the US, or both. No prominent pro-NATO narrative was identified among the most disseminated content included in the NATO conversation on Romanian Facebook

pages and groups, which underlines a vulnerability of the pro-Western message in the Romanian online space – a lack of successful dynamic efforts to promote the benefits of NATO membership, which coexists with rapidly-propagating negative messages.

Thus, the most active (and potentially impactful) areas of Facebook conversation about NATO contain negative elements, and the most visible reference in connection with the ongoing pandemic is a conspiracy theory belatedly debunked as fake news, while positive proactive communication related to NATO's actions during the pandemic was not among the most visible content mentioning this institution. These findings point to the considerable risk of the Romanian public on Facebook being exposed to negative narratives mentioning this institution, to anti-Western narratives in general, as well as to conspiratorial content targeting Romania's geopolitical allies.

Limitations & future directions

There are several aspects that limit the relevance of the conclusions. One stems from the tools used for collecting data, as well as the tools used to support their analysis. Even though Facebook is the preferred social network for news and political discussion in Romania, focusing research on this network is also a limitation, since it excludes some areas of social and political commentary, on YouTube, for example. The data collection tool does not retrieve Facebook comments, which is also a limitation since Facebook comments are often a very dynamic area of social conversation, particularly around controversial issues or conspiracy narratives.

Comparing conclusions for the researched period with a pre-pandemic period might offer useful insight into the patterns of Facebook communication about NATO, and this is both a limitation and a direction for future research. The research can gain a lot from comparison with findings from a previous period – such as the year before the pandemic. Recent geopolitical evolutions (end of 2021 – beginning of 2022) involving NATO and Russia also warrant the comparative analysis for a time frame that includes this interval, especially since the second pandemic year registered an amplification of conspiracy narratives.

Restricting content analysis to 25 links, despite their rigorous selection and proven relevance, can limit the power of the conclusions. An important development would be the inclusion of a larger number of documents in the content analysis to shed further light on the content and context of the NATO mentions. A more focused look into the content of the conspiracy narratives circulated in connection to NATO - and Western countries and institutions as well – can also reveal important aspects, and there are interesting approaches and tools that can be explored to better identify nuances, as well as to illustrate and visualize results, such as the narrative analysis used by Introne et al. (2018), and the narrative mapping proposed by Introne et al. (2020), but also others.

Moreover, analyzing the pattern of link-sharing can benefit from a further development – aggregating engagement numbers from several relevant links reflecting the same subject, in order to better estimate the penetration of issues, and not only individual links echoing them. Finally, *visibility* does not equal *reach* – all the above analysis looks at relative exposure and distribution patterns of online information and does not attempt to estimate the actual impact (reached public), which was not the objective of this paper.

Note

¹ The research design for this study has been developed as part of the author's PhD thesis.

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