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Wartime and Social Media Ecosystem. Disinformation Strategies and Bridges for Under-the-Radar Platforms

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| abstract

Disinformation has been studied in the pre-digital era and in recent years in relation to changes in global geopolitics, yet the war in Ukraine opens up a new phase in which it is possible to identify the persistence of processes that were already in place, and at the same time to trace a new order of information disorder. The new element is the emergence of a media ecosystem in which, alongside mainstream social networks such as Facebook, Instagram, and Twitter, the role of under-the-radar platforms such as Telegram, Gab, and 4chan Rumble emerges. Using a computational approach based on digital methods, the research identified, from a collection of data from Facebook and Twitter, recurring bridges to environments such as Telegram and Rumble. However, the content analysis revealed the prevalence of hyper-partisan over disinformation content, with a significant presence of videos and news channels featuring Russian sources, video interviews with relevant figures in Ukrainian politics, and a marginal volume of conspiracy or disinformation content. In the latter case, the role of political influencers who divert connected audiences to marginal platforms and uncertain sources proves to be strategic.

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Introduction

The invasion of Ukraine by the Russian army on 24 February 2022 initiated a large-scale conflict that does not shy away from the logic of cyber warfare, but rather highlights digital space as an important area for the weapons of *disinformation*[1]. Especially in the initial stages, disinformation was fuelled by coordinated actions in which the massive automation of propaganda made it possible to break through the threshold of visibility and intercept the attention of connected audiences. This is the case observed by researchers at the University of Adelaide through the analysis of over 5 million tweets published in the two weeks following the invasion. The investigation found that more than 90 per cent of the tweets were pro-Ukraine, while less than 7 per cent could be classified as pro-Russian, and the total number of fake accounts and *bots*[2]

1. The term disinformation is described in line with Bennett & Livingstone (2018): «intentional falsehoods spread as news stories or simulated documentary formats to advance political goals» (p. 124).
2. Automated systems capable of simulating the behaviour of social users.

was around 60 to 80 per cent. Scholars concluded that the Ukrainian side was more active in the use of automated Twitter profiles, while Russian *bot* activity in the first week of the conflict was minimal (Smart, Watt, Benedetti, Mitchell & Roughan, 2022). In the evolution of the war, some dramatic events, relayed with photos and videos on social media, triggered important reactions from the Western public and Russia. The massacre in Bucha, for example, which took place in March 2022, and whose images went viral in the West through Twitter, Facebook, etc., was widely contested by the Kremlin with the accusation of being a staged event, even though in-depth investigations later revealed the truthfulness of the massacre of civilians and the responsibility of the Russian army (Stanescu, 2022). Russia, on the other hand, made unfounded accusations in March 2022, also amplified by the Chinese state media (Rising, 2022), that Ukraine was developing biological weapons in a network of US-funded laboratories (Wong, 2022). The BBC British fact-checking body, BBC Reality Check, as well as NewsGuard[3] found no evidence to support the allegations (Robinson, Sardarizadeh & Horton, 2022), and Russian biologists, both inside and outside Russia, described the claims as patently false (Mackey, 2022). Besides institutional actors, it is the participatory nature of social media that fuels disinformation; this is the case, for instance, with the *Ghost of Kyev*: the story of a brave Ukrainian pilot who allegedly shot down six Russian planes in a single day. As soon as the news was made public on TV, a Tik Tok user began posting pictures that allegedly portrayed the 'Ghost of Kyiv', as the pilot was called by the media. Dozens of authoritative websites and media outlets placed the images on prime-time news broadcasts, indicating the source, but it was soon discovered that the video was actually a part of a commercial video game. The images, however, had meanwhile received almost half a million views on Tiktok and 1.6 million on Twitter (Ciammella, 2022).

In the ongoing war, both sides are using the online information ecosystem to influence the geopolitical dynamics of public opinion. Russian social media defend the reasons for the invasion, while Ukrainian social media aim to maintain the support of Western countries and promote their military efforts by undermining the perception of the Russian armed forces. In this context, which is still in flux and of which it is difficult to grasp the multiple tensions at play, propaganda and censorship are 'sides of the same blade' while disinformation is another weapon deliberately used by different actors or produced by the algorithmic logic of digital platforms in an increasingly complex media ecosystem.

Disinformation in a New Media Ecosystem

Although the topic of disinformation has been studied in the pre-digital era and in recent years in relation to changes in global geopolitics (Iosifidis & Nicoli, 2021; Bennet & Livingstone, 2018), the war in Ukraine opens up a new phase in which it is possible to identify the persistence of processes that were already in place and at the same time to trace a new pattern of information disorder. Among the persistent trends we can identify at least two elements: the changing actors of disinformation, which include not only traditional actors such as the mainstream media, journalists, or state communication organs, but also private citizens who consciously or unconsciously become multipliers of disinformation in social media (Ciammella, 2022; Golovchenko, Hartmann and Adler-Nissen, 2018). Another

3. https://www.newsguardtech.com/it/special-reports/centro-di-monitoraggio-della-disinformazione-sul-conflitto-russia-ucraina-oltre-100-siti-pro-putin-e-le-10-false-narrazioni-piu-diffuse/ (accessed 20 May 2023).

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recurring feature is the hybridization of forms and content that become increasingly subtle and less precisely traceable to strictly political messages, but mix with forms of enjoyment or *agitainment* that more or less obliquely express politically aligned messages (Affuso & Giungato, 2022). In our view, however, the new element that the current war brings out in all its controversial complexity is the emergence of a *media ecosystem* (Zuckerman, 2021) in which, alongside mainstream social networks such as Facebook, Instagram, and Twitter, the role of below-the-radar or under-the-radar platforms such as Telegram, Gab, 4chan, and Rumble emerges (Boccia Artieri, Brilli & Zurovac, 2021). According to Zuckerman: «the concept of a 'media ecosystem' as a complex but quantitatively analysable set of relationships and flows, offers a lens to understand our Facebook/Cambridge Analytica/disinformation moment» (Zuckerman, 2021, p. 1497). In fact, the relationship between under-the-radar and mainstream platforms can be underlined by the possibility of identifying and analysing, even quantitatively, information flows and processes activated by subjects or algorithmically produced by platforms, which result in the dissemination of disinformation. The reason we observe the flows and processes involving under-the-radar environments is that they are characterised by higher levels of anonymity and free expression. They can therefore give voice to hyper-partisan positions and the dissemination of decidedly false content often linked to conspiracy theories conceived elsewhere, which are strategically reworked in local contexts thus drawing new geopolitics of disinformation (Yilmaz, Akbarzadeh & Bashirov, 2023).

The war in Ukraine also called the attention to special measures aimed at curbing disinformation on platforms such as Meta (Facebook, Instagram, WhatsApp), Google (YouTube) and Twitter: these in fact introduced both radical measures such as censorship of the main Russian media – RT (Russia Today) and Sputnik – in most European and Western countries, and containment measures aimed at curbing the spread of propaganda or disinformation by private citizen profiles and groups that knowingly or unknowingly contribute to the spread of fake news (Susi et al., 2022). As an extreme solution to moderation policies aimed at individuals, there is *de-platforming*: the deletion of the profiles of the most active influencers who, banned from Facebook or Twitter, often migrate to under-the-radar environments such as Telegram, Parler etc. in search of more libertarian and less monitored contexts (Rogers, 2020). However, it is necessary to emphasise that, while the war has led the European Commission to force dominant platforms to censor the content of Russia governmental communication agencies these measures do not in any way bind Meta or Twitter to delete the profiles of individuals or groups (Susi et al., 2022): in this respect, platforms retain decision-making autonomy and full digital sovereignty (Metakides, 2022; Pohle & Thiel, 2020).

The hypothesis driving the research therefore argues that, even from this new framework, which binds the dominant platforms to monitor the ongoing debate more closely, it is possible to trace in the current information ecosystem a progressive eclipse of non-mainstream positions towards marginal environments.

Below-the-Radar Platforms

Subtrack platforms – often described as alternative or marginal (Bär, Pröllochs & Feuerriegel, 2023; Boccia Artieri et al., 2021) – such as Telegram, 4chan, Gab, Reddit, Rumble, and Bitchute guarantee high levels of anonymity and render freedom of speech an absolute value. They have been described as expressions of marginal subcultures, if not

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directly as privileged breeding grounds for the elaboration of hate speech, as well as misogynistic and xenophobic speech, and generally for the spread of conspiracy theories and disinformation (Nagle, 2018). In conjunction with the assault on Capitol Hill, the massive sharing of fake news in 4chan and Gab networks was an important factor in reinforcing the group identity of the attackers and a trigger in leading the group to the action of 6 January 2021 (Rudden, 2021; Dehghan & Nagappa, 2022). Even during the Covid-19 pandemic, several platforms have been identified as privileged environments for spreading false news about the origins of the virus and vaccination policies (Papadopoulou, Kartsounidou & Papadopoulos, 2022; Bruns, Harrington & Hurcombe, 2021).

Among the various contents of disinformation in the present time of war, the news of Ukrainian bio-labs allegedly financed by the US with a view to germ warfare described a paradigmatic cycle of dissemination. The news was initially published in English on GAB from 14 February 2022 (Collins & Collier, 2022), then replicated in QAnon's conspiracy channels (Ling, 2022) and became mainstream on Facebook and Twitter as well. The same flow of disinformation fuelled by Telegram was detected in Germany, where the Center for Monitoring, Analysis and Strategy (CeMAS) discovered that a German channel with over 200,000 subscribers was promoting false claims about the secret biolab in Ukraine (Kayali & Scott, 2022). The biolab news, as set out in the previous section, has been fact-checked and verified as unfounded by many and yet, in the albeit short time of circulation and visibility in the *social* ecosystem, it may have reached thousands of people and influenced multiple perceptions and opinions. Moreover, its circulation, which has spread from under-the-radar platforms to dominant ones such as Facebook and Twitter, further reveals the toxicity of an increasingly interconnected and unpredictable information flow ecosystem.

Regardless of the type of content, under-the-radar platforms tend to rework the narratives of mainstream ones in non-predictable ways: if in the case of biolabs, disinformation was processed on Telegram and then emerged in the dominant platforms, in other contexts the flows are less linear. Under-the-radar environments can in fact be amplifiers of both objectively uninformative content and *hyper-partisan* or ideologically aligned information (Herrman, 2016). Indeed, multiple studies have indicated that hyper-partisan reworkings of mainstream news are among the most common types of content: Burton and Koehorst's (2020) study on the 2020 US elections, for example, discovered through a comparative analysis on Reddit and 4chan that mainstream news sources account for a significant portion of political information on the two socials (*ibidem*, p. 3). It was also verified that content from mainstream sources is used pretextually to steer users towards more radical channels on YouTube or Rumble, often belonging to alternative influencer networks. Indeed, the research revealed a network of influencers who are very active on YouTube – such as Joe Rogan and his channel Powerful JRE (Joe Rogan Experience)[4] or Ben Shapiro and the Daily Wire channel[5] – often characterised by controversial or decidedly provocative positions on the facts of American politics. The same dynamic was observed by Rogers (2021) in a multi-platform investigation, where 4chan – in particular the discussion forum /pol/ – and Reddit used information content from mainstream platforms to divert users to an alternative network of influencers. Rogers describes this network as a collection of YouTube channels that oscillate between news and video blogging focused on the personalities of individuals aiming to spread

4. https://www.youtube.com/@joerogan (accessed 20 May 2023).
5. https://www.dailywire.com/show/the-ben-shapiro-show.

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misinformation. Many of these channels have been identified among the discussion forums of 4chan and Reddit, although 4chan/pol/ and Reddit have different characteristics in their communicative style: Reddit prefers to refer to videos using the 'alternative debate style', whereas /pol favours a style defined as 'toxic vox populist', with a single person directly addressing the audience (Tuters & Burton, 2021). The presence of alternative influencers as the main mediators of misinformation between different platforms was also detected in the recent Italian debate on the *Green Pass*[6] and in the role of some problematic YouTube channels and the undercover platform Rumble, dedicated to reinforcing and amplifying conspiracy theories and fake news. In this case, it was found that links to YouTube and Rumble channels were present in messages initially posted on mainstream platforms such as Twitter by relevant profiles in the public debate (e.g., @ Claudio Borghi, Lega Nord MP) and other influencers in the political debate.

In view of this media ecosystem, the essay aims to answer the following research questions:

1. In the context of the Italian debate on the war in Ukraine, how can we characterise the information flows between mainstream platforms and undercurrents?
2. What is the geopolitical context of disinformation, i.e., to what extent do these flows tactically rework disinformation generated in other countries?
3. How can we describe the alternative influencers that steer information flows towards the undercurrents?

Research Methodology

In view of the highlighted dimensions, the essay analysed the public debate in Italian on the war in Ukraine with the aim of analysing in particular the relationship between the content present in mainstream platforms such as Facebook and Twitter, and the undercurrent environments Rumble and Telegram[7]. The analysis was carried out through *digital* methods (Rogers, 2019) and focused in particular on a digital entity called *bridge*, understood as a connection or hyperlink between one platform and another. The concept comes from transmedia studies and has been used (Hayes, 2006) to describe the movement of audiences across traditional media such as Cinema, TV, Radio etc. In light of the evolution of *social* into a complex media ecosystem, we can use the term bridge to describe the connection between information flows from different platforms, each of which possesses different characteristics and affordances. In this perspective, a particular tactic is the use of bridges to direct attention to secondary platforms. Bridges can thus be seen as digital entities tactically used by actors or integrated into algorithmic processes, aimed at directing attention to marginal environments that may be a source of misinformation or *hyper-partisan* content. To use another well-known concept

6. Wikipedia contributors. (2023, December 21). EU Digital COVID Certificate. In *Wikipedia, The Free Encyclopedia*. Retrieved 16:08, December 28, 2023, from https://en.wikipedia.org/w/index.php?title=EU_Digital_COVID_Certificate&oldid=1190998783.

7. The video-sharing platform (https://rumble.com/) has recently experienced significant growth in numbers of mainly English-speakingusers and has been repeatedly accused of fuelling disinformation and conspiracy theories, such as QAnon. cf. https://www.wired.com/story/rumble-sends-viewers-tumbling-toward-misinformation/; https://globalnews.ca/news/8451636/donald-trump-social-media-canada-rumble/; Telegram is a popular messaging application, also in Italy, and particularly used by journalists and civilians in conflict zones. cf. https://www.pewresearch.org/fact-tank/2022/12/16/key-facts-about-telegram/; https://www.repubblica.it/tecnologia/2022/03/31/news/perche_telegram_ha_la_fama_di_essere_piu_sicura_di_quello_che_e-343061186/ (accessed 5 July 2023).

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in transmedia, bridges can serve as *rabbit holes* to channels and information flows that are often antithetical to the mainstream.

The research focused on the bridges contained in Facebook and Twitter posts directing the user to the video-sharing platform Rumble and the messaging application Telegram, with the aim of identifying the typology of the connected flows and possible misinformation. The Italian debate was primarily investigated in order to detect any similarities with the English content in order to comprehend the geopolitical perimeter of information flows. The 350 days time span observed runs from 15 February 2022 (10 days before the Russian invasion) to 31 January 2023. The keywords used for the data collection initially aimed to capture the general debate on the topic, thanks to neutral terms such as Ukraine, Russia, Zelensky, Putin. It is important to maintain neutrality here, which is why we avoided including the word 'invasion', used by the Ukrainian and Western perspectives, and the word 'mission', used by Russian and Putin propaganda, among the keywords. Given the centrality of the 'nuclear' threat in the debate, we have also included keywords such as Chernobyl, Zaporizhzhya, Atomic and Nuclear. Finally, to capture the geopolitical dimension on an international level, we used Biden, Nato, Draghi, Macron, Xi Jinping, Erdogan, etc. Data capture and systematisation was performed using the open-source software 4CAT[8] for Twitter, and the Crowdtangle platform[9] for Facebook. The Facebook data collection (dataset) was then processed with 4CAT. The potential volume of data is summarised in Table 1. The platforms take different measures with regard to the privacy of their users, so the difference in the volume of data is that Twitter makes available the data of all users[10], whereas Facebook only those of verified profiles, groups, and public pages. To quantify the volume of Twitter data, we excluded retweets in order to have an indication of original content.

In order to focus on the *below-the-radar* platforms, we made a further selection from the initial data collection in order to identify bridges. This is done by selecting from the dataset the hyperlinks to the secondary platforms under consideration, i.e., the direct connections to Rumble (rumble.com) and Telegram (t.me).

Finally, Table 2 shows the original content identified after the bridge selection, highlighting, and distinguishing the target platforms and language. Numbers refer to original content, i.e., excluding duplicates due to retweets and shares.

The number of retweets and Facebook shares was used to describe the most viral content in relation to source platform, target platform and language. We then considered a variable number of results, which we analysed qualitatively by reading and viewing the target content of the bridges in the sub-platforms, and also analysing the source profiles and/or pages from Facebook and Twitter. Thanks to this interpretive analysis, it was possible to identify whether the flows traced were disinformation or *hyper-partisan* in nature and to which geopolitical context they referred to. In line with some previous studies (Rogers, 2021; Mourão & Robertson, 2019), in this analysis we consider disinformation content including fake news, conspiracy theories, hoaxes, as conceptually separate from what can be defined as *hyper-partisan* or hyper-skewed, which identify content that is 'ideologically and politically aligned' but not necessarily fake. This distinction, though often problematic, allows us to distinguish content that has been objectively

8. 4CAT (https://4cat.nl/) is a tool developed by the Digital Methods Initiative of the University of Amsterdam in cooperation with OILab, Open Intelligence Lab.

9. Crowdtangle (https://www.crowdtangle.com/) is a data capture and analysis dashboard developed by Meta and made available to researchers.

10. With the sale of Twitter ("now X"), the APIs used are no longer available, due to a change in policies concerning academic research.

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Table 1. The table shows the number of original posts concerning the debate.

Source Platform	Italian	English
Facebook*	*704.213*	*2.143.899*
Twitter**	*1.433.031*	*20.240.740*

* Verified profiles, public pages and groups | ** Retweets excluded

Table 2. The table quantifies the data selected for the search, distinguishing source platform, target platform and language of the debate.

Source Platform	Destination Platform	Italian	English
Facebook	Rumble	63	2.997
Twitter	Rumble	1.539	22.380
Facebook	Telegram	3.755	4.791
Twitter	Telegram	6.110	23.853

All numbers refers to original posts.

verified as false and thus used instrumentally to manipulate public opinion, from ideologically partisan content intended to reinforce, for example, a view of the bipolar conflict based on the political and ideological clash between the United States and Russia.

Telegram: Analysing the Results

The analysis of the results highlights Telegram as more attractive target platform than Rumble. Telegram Messenger is an instant messaging service that is cross-platform, encrypted, cloud-based, centralised, and globally accessible. It offers optional encrypted chats, known as secret chats, video calling, file sharing and several other features. Launched in October 2013[11], by 2022 the application had more than 17 million active users in Italy, characterised by a particularly intense consumption of the medium with single sessions of about 2 hours or more (Cosenza, 2022)[12].

The diagrams in figure 1 depict the presence of bridges to Telegram from Facebook (in blue) and Twitter (in light blue) respectively in the Italian debate: the prevalence of Facebook as the main multiplier of bridges to Telegram is immediately apparent.

11. Founded by brothers Pavel and Nikolai Durov, also creators of the Russian social network V-Kontakte (VK), the company left Russia in 2014 to escape government impositions and established its administrative centre in Dubai. The Telegram application has seen a steady growth in users since 2013, marking a significant increase from the second half of 2020. See https://en.wikipedia.org/wiki/Telegram_(software).

12. https://vincos.it/2022/03/05/social-media-in-italia-utenti-e-tempo-di-utilizzo-2021/ (accessed 5 July 2023).

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Connected to these source contents are different Telegram channels, but cohesive on a position critical of the sending of weapons to Ukraine and decidedly pro-Russian and/or sympathetic to the populations of the Donbass and Lugansk, territories disputed even before the conflict and currently the targets of continuous attacks from both sides. If the source content presents one-sided positions on the ongoing war, the bridges to Telegram open up a more complex scenario of information and disinformation. Some links lead to sources on current events in the conflict: for example, the Telegram channel of Giorgio Bianchi, a self-styled war reporter, or the channel *L'AntiDiplomatico*, a formally registered newspaper. Alongside these, however, we also find no vax channels, focusing on the policies of pharmaceutical companies on anti-Covid-19 vaccines, on the alleged effects of vaccination on heart ailments and other serious diseases, and on various conspiracy theories. For instance, the contents of the Facebook profile 'Stream of Consciousness' point to the Telegram channel of the same name[13] where, along with news about the ongoing conflict, a stream of videos and texts, and pseudo-scientific interviews are opened, dealing with New World Order conspiracies, the denial of the 1969 Moon landing by NASA, and finally various theories about the Multiverse and the discovery of alleged missing civilisations with highly advanced technologies. If this is the channel that is decidedly more uninformative – where conspiracy or decidedly pseudo-scientific positions and theories are to be found – among the other Telegram links we find content that is either decidedly more focused on the war in Ukraine, or more problematic in terms of definition. Two subjects such as *Spread It lab*[14] and *L'AntiDiplomatico*[15] for instance, publish videos and content sometimes from other YouTube channels, sometimes reposting articles from *La Repubblica*, *Il Fatto Quotidiano*, the *Financial Times*, *The New York Times*, but also *Russia Today* (RT) and *Sputnik*, the two main Russian news networks banned from mainstream platforms. The two Telegram channels are quite similar in outlook and political stance: the information flow shows an anti-Atlantic, anti-NATO, radical left-oriented position. On the war in Ukraine, however, the position is clear: the denunciation of the Italian government's sending of weapons, criticism of the Ukrainian army described as neo-Nazi, and support for the people of the Donbass and the Russian army is evident. In view of the entirely authoritative sources, however, it is not possible to identify disinformation in the strict sense, but rather, given the re-reading of the news in a pro-Russian and anti-American key, it is possible to identify a decidedly *hyper-partisan* position.

Analysing the bridges to Telegram from Twitter, we can see a similar process at work: among the most obvious Telegram channels we still find *L'AntiDiplomatico*, which also publishes the same content across Twitter, Facebook, and Instagram. Alongside this, however, Russian-language sources emerge such as RVvoenkor[16] (1,800,000 subscribers) and Rian.ru[17], the channel of a former Russian state information agency RIA NOVOSTI (over 2,600,000 subscribers), or other smaller news channels such as Stranua[18] and Dimsmirnov[19]. Here we are dealing with information that is evidently pro-Russian by parties whose institutional nature is difficult to identify.

13. https://t.me/flussodicoscienza (accessed 4 July 2023).
14. https://t.me/Spreaditlab (accessed 4 July 2023).
15. *L'AntiDiplomatico* is a newspaper registered on 08/09/2015 with the Civil Court of Rome in 2015; see https://www.lantidiplomatico.it/pagine-chi_siamo/23188/ (accessed 4 July 2023).
16. https://t.me/RVvoenkor (accessed 4 July 2023).
17. https://t.me/rian_ru/ (accessed 4 July 2023).
18. https://t.me/stranaua (accessed 4 July 2023).
19. Names appear in links to Telegram channels in the Latin alphabetical version and not in Cyrillic. The content and names in the various Telegram channels are instead entirely in Cyrillic. Thanks to the "Translation" extension of the Google Chrome browser, it was possible to read the channel flow in Italian and grasp the general outline of the content.

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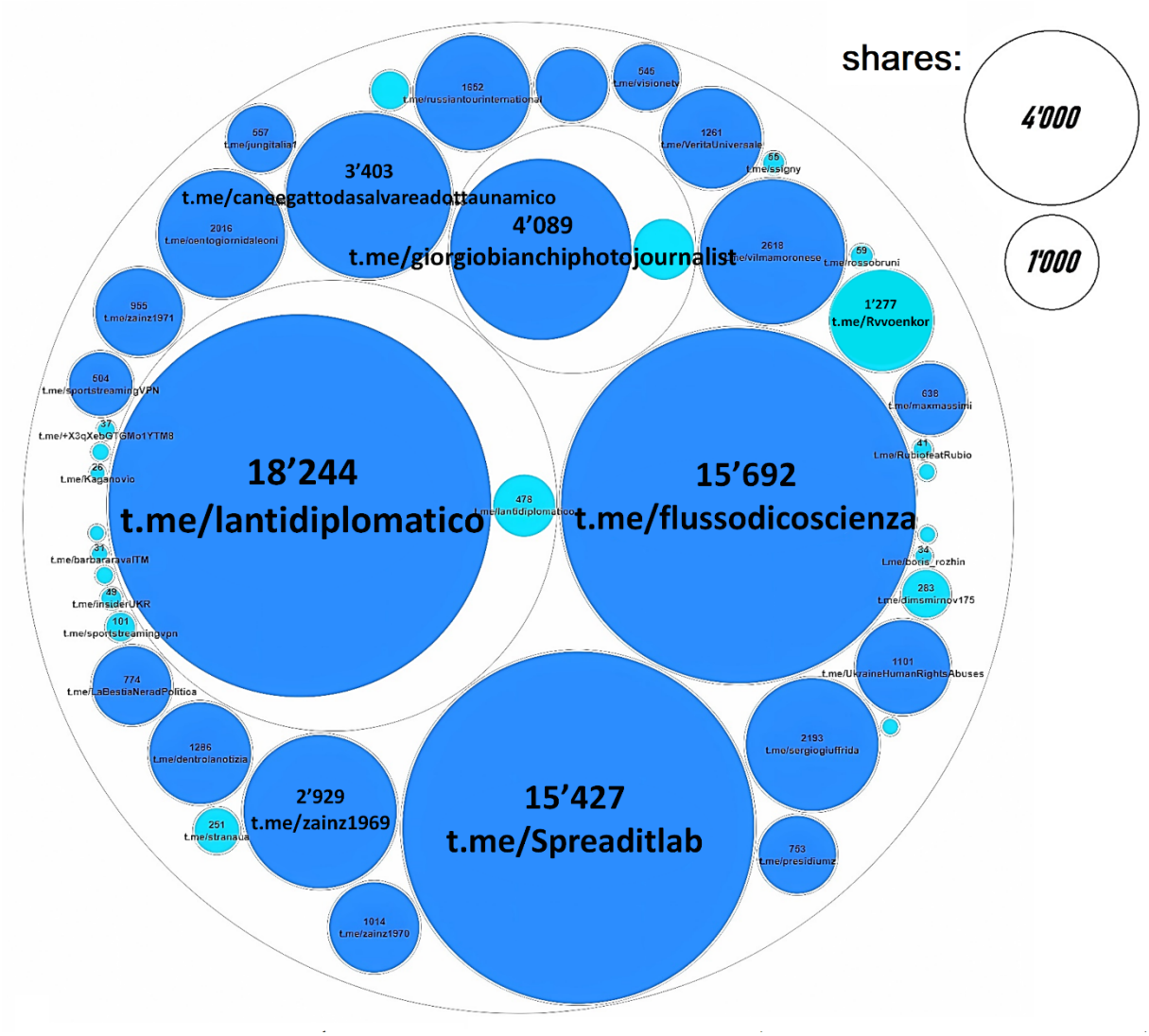


Figure 1. The circle-packing graph created with Rawgraphs 2.0 from the data in Italian represents the Telegram channels that received the most shares on the source platforms through posts on Facebook (the blue nodes) and tweets on Twitter (the light blue nodes).

As mentioned at the beginning, the overall volume of links to Telegram from Twitter is much less significant, but the political trajectory of information that points to Russian-language sources as a way to circumvent possible censorship in place on the main platform is interesting. Moreover, as we will see later, the tactic is promoted by a defined number of actors or influencers who are the most active mediators of information to the undercurrents.

In order to understand the relative role of the bridges to Telegram in Italian compared to the same in English, we elaborated a graph (figure 2): the flood diagram describes the Telegram channels analysed by relating them to the language of the debate, thus distinguishing the Italian debate (green stream) from the English debate (pink stream). Furthermore, the blue and light blue flows serve to distinguish the two source platforms taken into consideration (Facebook and Twitter).

Ultimately, content in Italian that has bridges to Telegram from Facebook circulates more in terms of shares and retweets than content in English, highlighting the platform's growing role in the social media ecosystem in Italy. It is also interesting to note that the only Telegram channel shared in both Italian and English by Facebook is again the Russian news channel Rian.ru described above.

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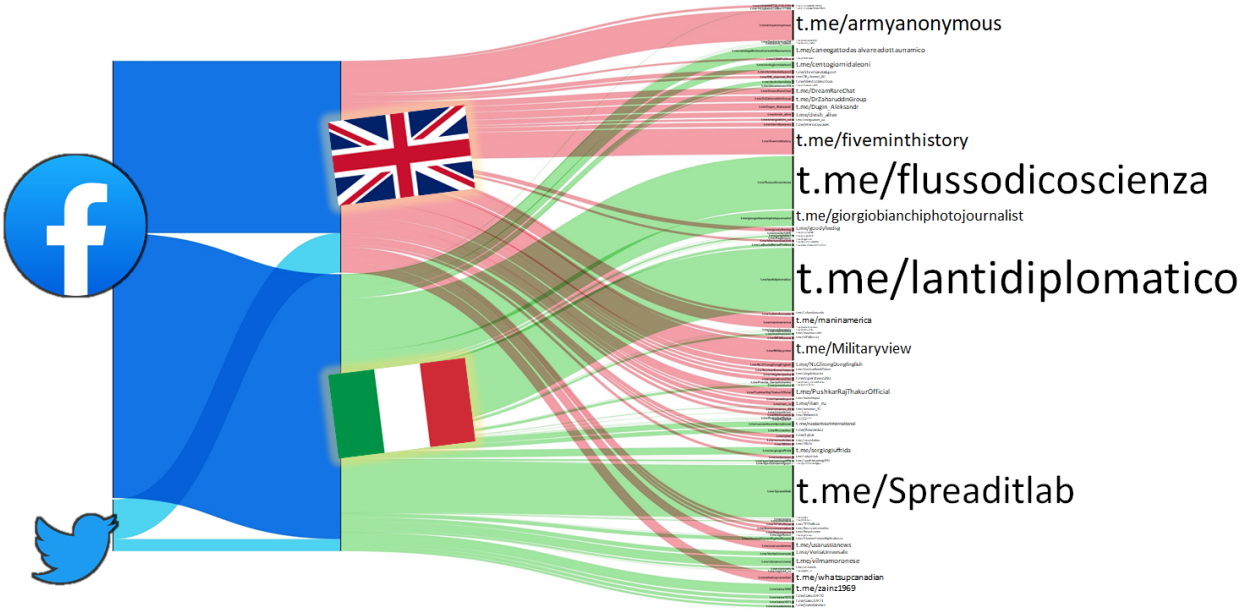


Figure 2. Flood diagram relating source platforms to language and main Telegram channels identified in the debate

Rumble: Analysing the Results

The contents analysed on Rumble differ substantially from those on Telegram: the former are in fact specific content – videos – linked from Twitter and Facebook, while the latter open up to news channels (e.g., *L'AntiDiplomatico*) with multiple and constantly updated contents. The nature of Rumble is also different: a video-sharing platform that is essentially a *right-wing alternative* to YouTube. Founded in 2013 by Canadian Chris Pavlovski, it has become popular in recent years and currently has 41 million visitors per month (Peters, 2022). According to recent research by the Pew Research Center, in the United States, the platform is a decidedly niche source for the fruition of information: only 2% of the adult population reads news on Rumble, a limited figure compared to the percentages of platforms such as Facebook (31%), YouTube (25%) and Twitter (14%) (Ghosh & Stocking, 2022). In Italy, there is no systematic research on Rumble's penetration, but some evidence from the empirical survey underlines its role in disinformation on climate change issues and post-Covid-19 vaccination campaigns (Gullo, Pasquetto, Riotta e Sciubba Caniglia, 2021).

The graphic elaboration (figure 3) presents the top 10 contents in Italian identified on Twitter with a bridge to Rumble. The size of the pictures shows the hierarchy of the contents based on the number of pure retweets received, highlighting Fabio Dragoni's speech on the Carta Bianca programme on national TV[20] as the most viral content, followed by different videos such as interviews, podcasts and news reports from English-language sites and reposted in Italian.

In the interview, Dragoni's position is decidedly critical of support for Ukraine and the possibility of its joining NATO. When asked about the appropriateness of an energy transition to nuclear power, he emphasises the enormous costs involved in replacing it with solar power plants, referring to the organisation Environmental Progress as

20. https://rumble.com/vw81gb-fabio-dragoni-guerra-ucraina-e-rinnovabili-1-marzo-2022.html; Fabio Dragoni is a journalist for *La Verità*, also known as a columnist on social media and for his no vax positions at the time of the pandemic (accessed 6 July 2023).

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Figure 3. Treemap showing the top 10 Rumble content identified on Twitter. The size of the rectangles is proportional to the number of retweets received by the content.

a qualified source[21]. However critical are his views on the climate emergency and the need for a radical change in the West's energy policies, his narrative also superficially refers to the statements of the Italian physicist Antonio Zichichi quoted out of context and in an opportunistic manner with respect to his conservative perspective. Alongside this content that we can consider hyper-partisan – but not decidedly uninformative, given its presence on a national TV channel – we find among the most widely shared, a 50-minute documentary directed by Paul Moreira in 2016, on the political reality in Ukraine prior to the invasion by Russia, which recounts the developments following the Maidan uprisings and the ouster of pro-Russian President Yanukovich. It dwells on the serious crisis situation, due to the political corruption of the new government's members, and the intervention of the US government, through US Delegate Victoria Nulan, as a strategic proponent of a right-wing if not decidedly pro-Nazi political turn[22].

Objectively uninformative content is instead found in two Rumble contents that focus on the news, verified as objectively false, concerning the existence of bio-laboratories in Ukraine, financed by the USA, and aimed at unleashing a bacteriological war in the Lugansk and Donbass territories to the detriment of the civilian population and the Russian army[23]. The content is similar in format – it is a re-presentation of video interviews – but the former features a dialogue between two American television

21. https://environmentalprogress.org/ (accessed 6 July 2023).
22. 'Masks of the Revolution', https://rumble.com/vy1ncd-ucraina-le-maschere-della-rivoluzione-sub-ita.html (accessed 6 July 2023).
23. https://rumble.com/v10vb2f-quei-nazisti-che-piacciono-tanto-a-ue-e-nato.html; https://rumble.com/v15jp03-notizia-bomba-la-russia-pubblica-le-prove-definitive.html (accessed 6 July 2023).

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journalists and a third one, Lara Logan[24], who expresses her decidedly pro-Russian and denialist positions on the pandemic, while the latter features an interview with Davide Zedda. The narrative is similar, but the critical aspect is that both interviews are actually designed as a *rabbit-hole*, the entry point to two decidedly conspiratorial and uninformative Telegram channels. The first is Imeta Semetkova's Telegram channel, which not only translates pro-Russian sources on the conflict into Italian, but also proposes 'sanitary dictatorship' themes, while the second is Davide Zedda's own Telegram channel, which presents similar themes or features the same kind of disinformation[25].

The same process can be detected by analysing some Rumble content *linked* from Facebook (figure 4), such as the video 'War crimes in Ukraine – Show it to complacent journalists and collaborationist Nazis'[26] which describes Ukrainian soldiers as pro-Nazi criminals and links to the Telegram channel Pandora.tv, an openly conspiratorial and disinformation channel[27].

From Facebook, we also find links to videos dealing specifically with the nuclear issue with decidedly conspiracy narratives related to the Great Reset theory[28]. The video launches several references to mainstream news channels using them to ridicule information or endorse their own theses at will. This approach creates an alienating effect within which the discourse passes through different topics: from the green pass for digital identity to nuclear power, considered dangerous and described in apocalyptic tones through the imagery of the Chernobyl and Fukushima disasters, passing through anti-Atlantic positions towards Ukraine.

Given the relative importance of the Rumble platform in Italy, we sought to identify whether, and to what extent, Rumble content referred to videos of the English debate, with the aim of also understanding whether the flow of disinformation was in any way referable to an international or distinctly local political geography. Figure 5 highlights the main profiles identified on Facebook and Twitter that post video content from the Rumble platform. The size of the node indicates the number of shares received by the content while the colour of the nodes distinguishes Italian profiles (in green) from foreign ones (in red). Among the different contents, it is possible to identify those that were shared on both source platforms (Facebook and Twitter) as well as the contents present in both the Italian and English debates. We therefore chose to analyse these contents in order to privilege the focus on the overlap between languages and the cross-platform dynamics between Twitter and Facebook.

Comparing the links to Rumble in Italian with those in English, one notices in particular an overlap concerning the same bridge posted in the two languages on Twitter and pointing to the video "The Ukraine war foretold"[29] from 2019 (figure 6). Here, Zelensky's former advisor Oleksiy Arestovych[30] argued that the price of joining NATO for

24. https://en.wikipedia.org/wiki/Lara_Logan (accessed 6 July 2023.
25. Davide Zedda's Telegram channel is on BUTAC's blacklist (hoaxes by the pound) https://www.butac.it/the-black-list/ (accessed 8 July 2023).
26. https://rumble.com/vw5jnr-crimini-di-guerra-in-ucraina-mostratelo-ai-giornalisti-compiacenti-e-nazist.html (accessed 8 July 2023).
27. Telegram channel Pandora.tv is on BUTAC's blacklist (hoaxes by the pound) https://www.butac.it/the-black-list/ (accessed 8 July 2023).
28. https://rumble.com/vy0gwl-transizione-energetica-dalla-geopolitica-al-grande-reset.html (accessed 8 July 2023).
29. https://rumble.com/v11ho75-the-ukraine-war-foretold.html; see https://www.youtube.com/watch?v=1xNHm-HpERH8 for the full version (accessed 9 July 2023).
30. https://en.wikipedia.org/wiki/Oleksii_Arestovych (accessed 9 July 2023).

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Figure 4. Treemap showing the top 10 Rumble content identified on Facebook. The size of the rectangles is proportional to the number of shares received by the content.

Ukraine, and thus escaping Putin's imperialist aims, was to enter into full conflict with Russia. The only alternative to this possibility was, in his view, full control of Ukraine by Russia by 2034. The video, which can be viewed in its original language with English subtitles, is available in its entirety on YouTube and presents a lucid and at the same time problematic reading of the political context prior to the conflict. Arestovych is certainly a controversial figure in the Ukrainian government: accused in the past of radical political stances and misogynistic attitudes, he left office in January 2023 after rashly commenting on the role of Ukrainian air defence in an attack that caused many civilian casualties. Nevertheless, his statements cannot be regarded as disinformation in the strict sense of the word, but rather a reckless and *hyper-partisan* view of the factors at play in Ukraine's transition process within a new geopolitical framework. Another noteworthy element is the recall at the Italian level of a document and a foreign source that has, however, intercepted the attention and thus the sharing by the Italian social media, re-drawing the perimeter of a media ecosystem where information flows follow trajectories that from mainstream platforms pass to undercurrent channels and then re-emerge again in the dominant debate.

Alternative Influencers

Starting from the Italian Telegram dataset – we analysed the recurring or non-recurring presence of profiles that are particularly active in sharing content to the under-the-radar environment. Figure 7 shows the graphical processing of the relevant profiles; based on the size of the spheres, the colour indicates their presence on Facebook (in blue) or Twitter (in light blue).

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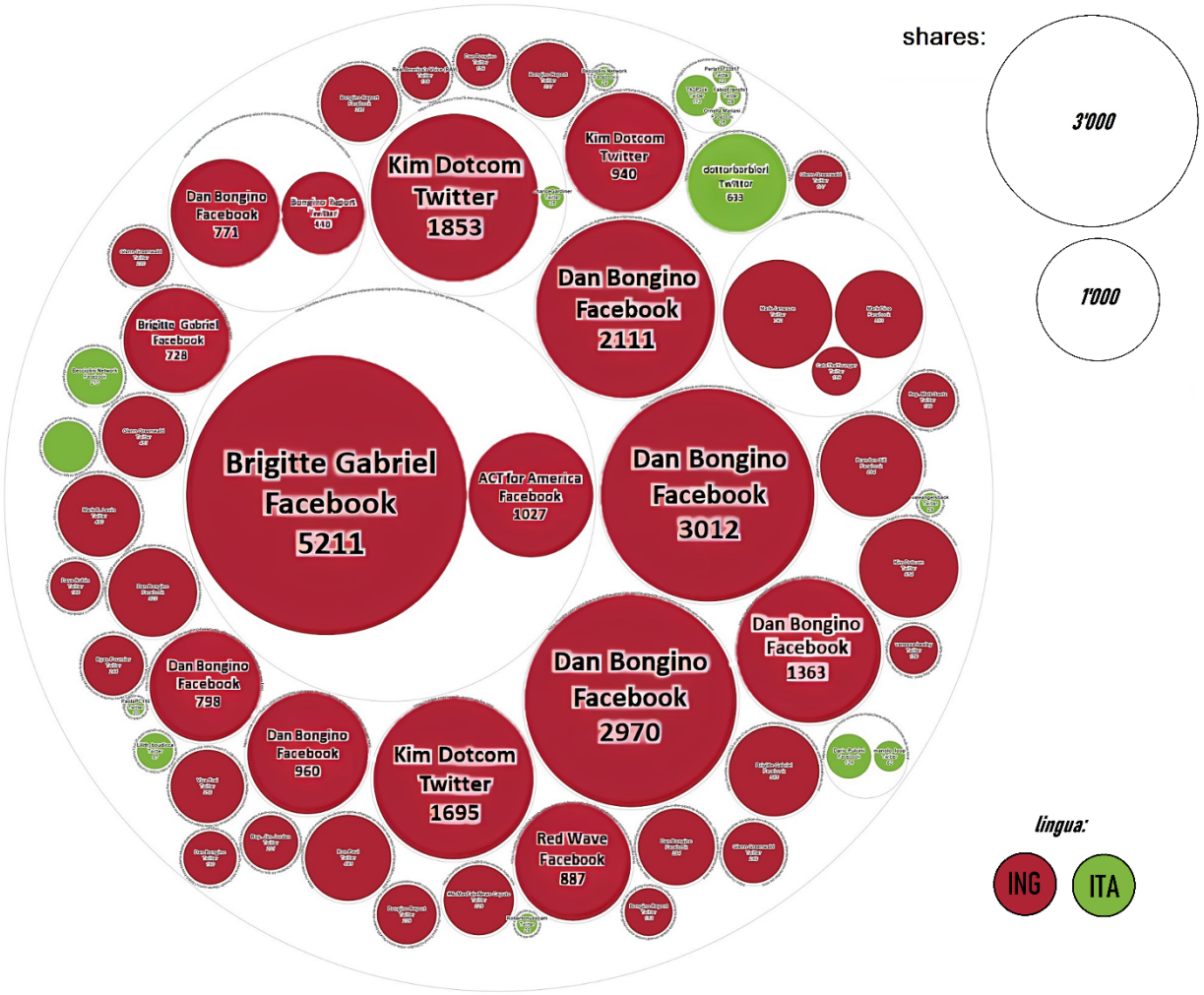


Figure 5. The circle-packing graph realised with Rawgraphs 2.0, represents the main Rumble videos, specifying the author of the post on the source platform, the number of shares and distinguishing English content (red) from Italian content (green).

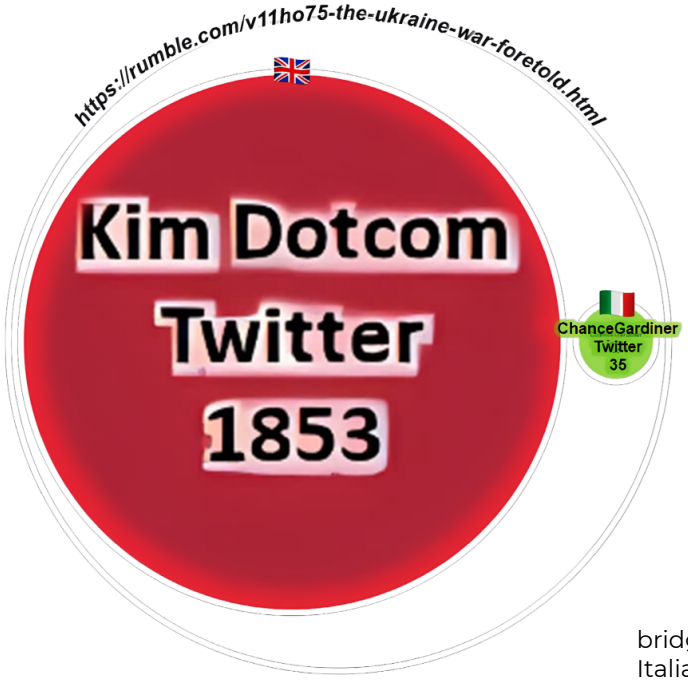


Figure 6. Detail of figure 5 showing the same bridge to the video “The Ukraine war foretold” in Italian and English.

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The prevalence of a few profiles – R-Esistence Pages, Stream of Consciousness, Spread it, Zainz – on Facebook as dominant voices both in comparison to the others and also to Twitter profiles is clear. By qualitatively analysing the narratives and types of content shared by the profiles, it is clear that the most decidedly uninformative ones are Stream of Consciousness and Zainz, while the other two can be considered as hyper-shared resources in their own right. Pagine di R-Esistenza is a Facebook profile that counts around 120,000 followers and refers to an unofficial news site – *Calabria News 24* – certainly characterised by a clear anti-NATO, anti-US stance, but not necessarily by disinformation, just as the Spread It profile with 20,000 followers is distinguished by a perspective characteristic of the militant left. Emblematic is the role of the Facebook profile Flusso di coscienza, which has around 20,000 followers and functions integrally as a bridge to the decidedly disinformation Telegram channel of the same name, which we wrote about above: in the Facebook feed, every post is an invitation to connect to the Telegram channel and functions as a bridge to the disinformation stream. Flusso di coscienza does not identify itself with a specific profile, but rather as a portal of disinformation that strategically uses the centrality of Facebook to lead users to undercurrents.

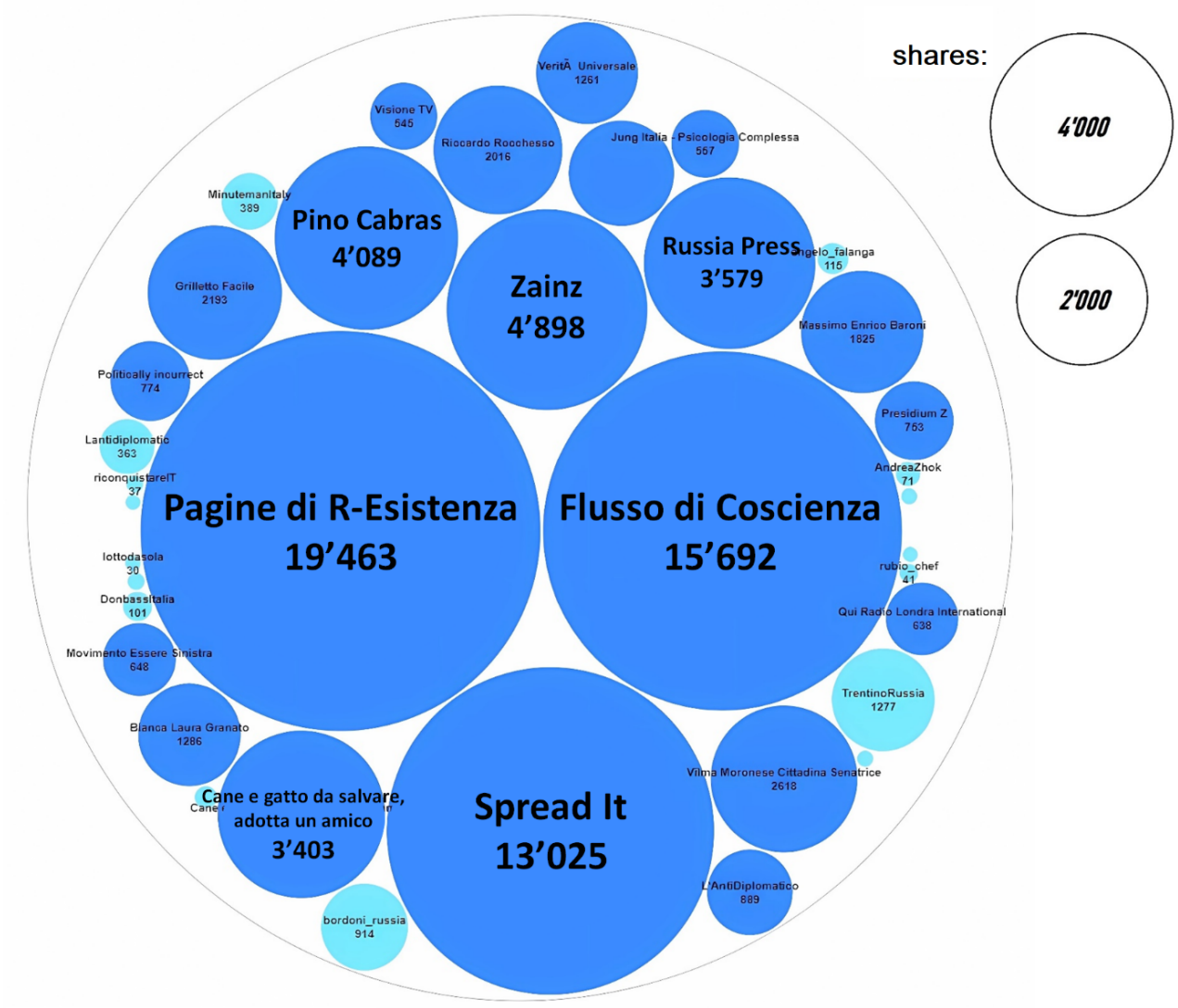


Figure 7. Circle-packing graph made with Rawgraphs 2.0 representing the main profiles of the Italian debate on Telegram, by number of shares on Facebook (blue) and retweets (light blue).

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Decidedly more focused instead on the personality of the influencer is the Facebook profile Zainz[31], which has 190,000 followers and identifies itself precisely as Zainz, a middle-aged Italian who describes himself as a 'soul traveller'. As the profile states, the page has been blocked several times by the platform and several contents are currently 'moderated' because they are strongly against vaccines, against the green pass and against the measures taken to contain the pandemic. Here, too, the posts function almost solely as a bridge to other channels run by Zainz on Telegram, Twitch, etc., where video interviews with different individuals on the topics of vaccines, time travel and the geopolitics of the conflict in Ukraine alternate. Analysing the specific narratives does not reveal any major novelties with respect to the themes already investigated, except for the constant association in the undercurrent of disinformation, between pandemic themes and thus the no vax narratives, with anti-NATO and decidedly conspiratorial positions with respect to the possibility of a nuclear drift of the current war. Central here is the role of a personal profile that can in effect be considered a *political social media influencer* (PSMI): according to Bause (2021), PSMIs are in most cases, individual users who have become known on social media as self-created personal brands, engaged in regularly posting self-produced political content (videos, memes, etc.) with which they reach and potentially influence a dispersed audience. PSMIs are often extroverted, communication-savvy individuals who assume central positions within broader social networks. Hence the constant use of video interviews with other self-styled experts with whom they discuss political issues in a mutual and specious exchange of mutual credibility based on shared visibility. This gives the different interlocutors in the network a potential for political influence. However, PSMIs owe their 'influence' mainly to their relationship with their connected publics, with whom they have to maintain constantly open and diversified channels of communication capable of reinforcing attention and multiplying their followers. At the same time, PSMIs are subject to the moderation of platforms, therefore, they must articulate their narratives on different registers – from the more *hyper-partisan* to the more moderate – tactically using the ecosystem of different *social* environments to strengthen their influence. Hence the strategic use of Facebook as a showcase page to divert followers to less monitored environments where they can express themselves with less caution.

Discussion and Conclusions: Towards the Eclipse of the Non-mainstream?

In relation to the research questions, the analysis presents some significant evidence: with regard to the role of bridges as multipliers of disinformation, we observe non-univocal trajectories. In the Italian debate on Facebook and Twitter, bridges are used towards Telegram mainly to direct followers towards *hyper-partisan* and non-disinformation content. This tactic can be observed in particular for links to channels such as *L'AntiDiplomatico*, Spread it and even in the reposting of some Russian channels through links from Twitter. The reasons for this may refer, on the one hand, to the censorship operated by the dominant platforms such as Facebook and Twitter, on the official Russian news channels and, on the other hand, to the fact that, for example in Italy, we are witnessing a gradual normalisation of Telegram, which is evolving from an under-the-radar environment to a

31. https://www.facebook.com/zainz1969 (accessed 8 July 2023).

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central platform for information in the contemporary *social* ecosystem[32]. This evolution has both an international character, i.e., it follows a similar trend on a global level, but also a marked local connotation, since it is precisely in Italy that Telegram is overtaking Twitter as the major platform for political debate, and not so much in the rest of the world[33].

Far more misinformative is the content identified on Rumble, a platform that preserves its niche character in Italy, while it is much more present in the English-speaking debate, as can be seen from the data in Table 2. This may also have conditioned the phenomenon, observed in the content analysis, of the re-launch by Italian-language channels of disinformation content in English and Russian, as for example in the case of the fake news about biolabs in Ukraine. This process has already been observed in other contexts – e.g., in the debate on the adoption of the green-pass – where the inspiration from other fake news and conspiracy theories, e.g., that of QAnon[34], revisited in a local key, allows to strike the emotionality of followers with a good dose of sensationalism. The phenomenon also delineates a geopolitics of information flows in which it is difficult to distinguish opportunistic aims – i.e., the intent to reuse high-performance content that increases the visibility of channels and/or profiles of influencers – from tactics that promote alternative sources of information. In this scenario, the role emerges of *Political Social Media Influencers* (PSMIs) – such as, for example, Zainz – who act as mediators of misinformation and *hyper-partisan* content, and who act as catalysts for broader networks of potential followers. It is these in particular that keep the connections between mainstream and underground platforms alive, not least because such connections are often the only ones that allow them to survive in an increasingly regulated media ecosystem. It is difficult at the moment to precisely assess the causal link between the censorship of official Russian channels, the *de-platforming* of specific profiles from mainstream platforms and the growth of underground environments as a safe haven for the spread of disinformation: empirical observation can only be limited to specific cases and circumscribed contexts (Rogers, 2020).

The reflection that emerges from this survey – albeit limited to a national perimeter – is that the present conflict, with its contradictions, dramatic implications, and uncertain outcomes on the geopolitics to come, is somehow enabling a gradual eclipse of non-mainstream debate towards under-the-radar platforms such as Telegram. However, such environments are progressively becoming the central arenas – at least in Italy – of political debate compared to mainstream platforms such as Twitter. At this point, the analysis raises further questions and perhaps new research directions that could illuminate an evolving scenario: how to explain the spread of Telegram in Italy precisely in the context of the war in Ukraine? To what factors is its centrality in the political debate linked? And above all, which new policies should guide the dominant platforms in the post-conflict media ecosystem?

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32. At the moment, Telegram, with over 17 million active users in Italy, is well ahead of Twitter (11.5 million users), although globally Twitter has more users than Telegram.
33. https://wearesocial.com/it/blog/2022/01/digital-2022-i-dati-globali/ (accessed 10 July 2023).
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