During and Beyond the Pandemic: conspiratorial and radical groups online and offline as a sign of the persistence of social complexity in Italy

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Abstract

Lack of knowledge and contested opinions about the effects and safety of the Covid-19 vaccine caused fear, anxiety and health concerns, encouraging the spread of disinformation and fake news in a social context, notably in Europe, where distrust of political and health institutions prevails.

The purpose of this contribution is to examine the evolution of issues related to the pandemic and post pandemic emergency contexts, shifting to new subjects such as the Ukraine War, but reiterating a digital attack on democracy and the debate on bio-laboratories as key arguments of online and offline radical groups. A three-step research design was developed to investigate these aspects, focusing on conspiratorial and radical groups that still discuss different topics related to issues emerging from the pandemic but also current events. To better understand the evolution of radical groups, a mixed-method approach was chosen, combining quantitative analysis of social media content with qualitative interviews of protest participants. By examining the language and themes used in online spaces such as Twitter and comparing them with the experiences of protestors in the streets, researchers were able to better understand the motivations, beliefs and strategies. The combination of digital analysis and face-to-face interviews provides a comprehensive view of how conspiratorial thinking and radical activism persist in the post-pandemic era, offering valuable insights into the complexities of contemporary political and social groups and movements**.**

Keywords: *Covid-19, war, disinformation, radicalisation, fake-news.*

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1. Introduction

The spread of the Covid-19 pandemic triggered a host of emergencies across health, socioeconomic and institutional spheres. The restrictions imposed by governments to curb the spread of the virus sparked significant tensions between citizens and political institutions, culminating in widespread protests in many countries. The "No-Vax", "Anti-Vax", "No Green Pass" and "No-Mask" protests, which aimed to sow seeds of doubt and spread anti-scientific, conspiratorial beliefs, were the most prominent ones. While these protests seemed to subside with the end of pandemic-related restrictions, the groups behind them have not disappeared. Instead, they have continued their activities, primarily via social media, to propagate conspiratorial beliefs to a broad, diverse audience. During the pandemic, these conspiracies were linked to digital identity issues and the fear of bio-laboratories; the end of the pandemic did not mark the end of these conspiratorial waves. Rather, these groups have adapted, now working primarily online to engage in a range of topics related to both the aftermath of the pandemic and ongoing global events. While these groups are not strictly radical social movements, their dissemination of conspiratorial ideas and their increasingly polarised views make them relevant actors in today's public discourse. They are emblematic of the persistence of social complexity in a time when digital tools have both amplified and fragmented collective action. However, as the pandemic subsided, the focus of these conspiratorial attitudes shifted. As discussed further below, during the pandemic, protesters highlighted the dark side of digital tools used to enforce compliance with health restrictions, lamenting invasions of privacy and viewing these as attacks on democratic freedoms. This sentiment extended into concerns about a "Maximum Surveillance Society" (Norris and Armstrong 2020), where surveillance technologies were seen as oppressive. Another central tenet of the conspiracies was the fear that the pandemic could have originated in a Wuhan laboratory, feeding into broader fears about bio-laboratories.

However, even as the pandemic ended, the polarised and radical thinking did not disappear. These groups redirected their focus to the Ukraine War, notably framing Russia not as an aggressor but as a victim (Radnitz 2023). Conspiratorial rhetoric around the attack on democracy and the continuation of bio-laboratory debates also persisted, demonstrating how these radical groups adapted their narratives to new global contexts.

The Internet and social media have become pivotal tools for these conspiratorial and radical groups, as highlighted by a vast body of research. They now serve as the primary means of communication for contemporary social movements. According to recent literature on social movements, the Internet played a crucial role in the pandemic protests, facilitating e-mobilisation (Earl and Kimport 2010) as traditional forms of mobilisation were hindered by physical distancing measures. Social media platforms acted as "public spaces" where discourse on key issues was shaped, and meaning was constructed (Carney 2016). These platforms allowed for continuous engagement, fostering a shared understanding and reinforcing conspiracy theories (De Choudhury et al. 2016). They enabled the creation of bonds among individuals with diverse identities, uniting them against a common enemy: the government (Kim 2015; Nien 2017). Additionally, these platforms supported the formation of large and sustainable interpersonal networks, promoting cooperation between like-minded individuals or coalitions (Bennett and Segerberg 2012; Baron 2013).

This understanding underpins the decision to examine both online and offline contexts in the fieldwork presented in this article. By analysing both dimensions, a fuller picture of how these conspiratorial and radical groups operate can be drawn. The groups' online
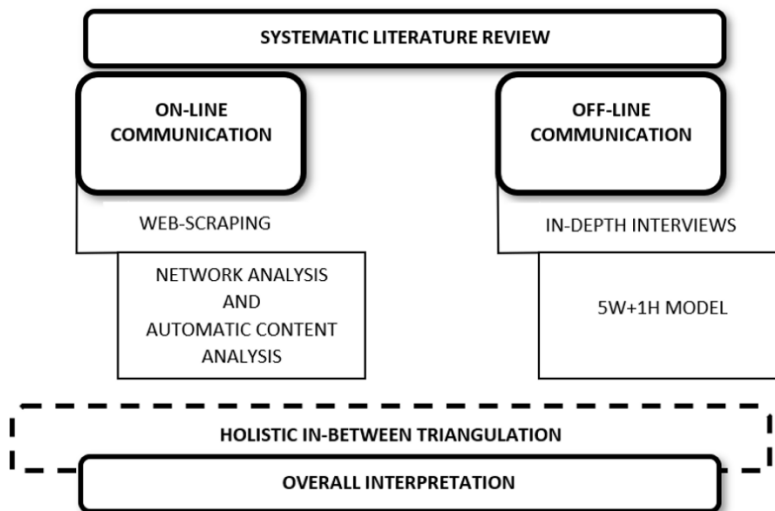
presence serves as a significant mobilising force, but their offline activities, including protests and demonstrations, also play a key role in the persistence of their ideologies.

The study presented here delves into the ongoing influence of these groups, which, though initially sparked by pandemic-related issues, have continued to persist and evolve by addressing new topics such as war and contemporary freedom. The goal is to understand the radical collective behaviours that emerged during the pandemic by examining the triggers, the underlying causes of extremism, and the processes of polarisation. By investigating both the online and offline dynamics, this research seeks to provide a comprehensive picture of the persistence of hidden radicalisation in a socially complex world.

2. Research design

This work adopts a mixed method approach that gives equal weight to the qualitative and quantitative plan (Creswell and Piano Clark 2007). It uses data from different sources, all related to the reactions to the pandemic crisis and its effects (della Porta and Keating 2008: 34; Daher 2012: 227). The research design is divided into three steps (Fig. 1). The results of the different steps were integrated in order to provide an overall picture of the new mobilisation processes and their actors, highlighting radical and polarised thinking and behaviour.

Fig. 1 – The research design

The three steps were developed as follows:

1. *Desk research*: this step aimed at building the theoretical frame through a systematic literature review focused on specific issues related to the study of radical collective behaviours in emergency contexts. In particular, the following aspects were taken into consideration: (1) science and technology issues in public debate; (2) politicisation of science; (3) conspiracy theories and radical behaviour in pandemic and post-pandemic contexts; and (4) related issues. The identification of the relevant journal articles for the systematic literature review were based on targeted searches of well-known scientific databases, such as Scopus and Web-of-Science. The keywords and strings that guided the analysis are described in detail in the note below[1]. This analysis brought to light the key themes/issue that led the fieldwork, as examined in the next section.

2. *Quantitative step*: the aim of this step was to reconstruct online communication on social networks (specifically on Twitter, because of the political relevance of this social media platform) and its contents during three different phases of the pandemic crisis, namely: emergency=2020-21; end of emergency=March 2022; and after a year=March 2023. Here the goal was to identify the keywords mostly selected, the rise of online communities and their structure, and the main content underlining the communication. Monitoring the online communication, we established the main topics and the extension of protests/communications, identifying the most selected comments (top 10 tweets) and their relational structure by means of web-scraping instruments and the application of Network Analysis tools. The extraction of tweets was conducted using NodeXL Pro Twitter data importers to monitor communication during each period; the total number of tweets extracted was 153,754[2] (first period) and 97,337[3] (second period). Communication was analysed applying Social Network Analysis tools to connections among users, where the comments constitute the links among them. Afterwards, an automatic content analysis procedure was applied using the T-Lab software, focusing only on the comments from protest

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[1] The theoretical frame was developed by analysing documents selected through a systematic literature review that focus on specific issues related to the study of radical collective behaviours in emergency contexts. The academic literature search was based on a review extracted by two databases: Web of Science and Scopus. To ensure that all the relevant sources were included in the results, a combination of keywords was used to search the Title, Abstract or Keywords. The keywords used for the Scopus and Web of Science database exploration were: (a) Web of Science: Covid-19 AND radical behaviour; Covid-19 AND conspiracy theories; public debate AND Covid-19 AND science; Russian AND disinformation; Wuhan AND disinformation; (b) Scopus: public debate AND Covid-19; Covid-19 AND conspiracy; digital identity AND Covid-19; Covid-19 AND war. The timespan selected for the research was from 2020 to 2025 inclusive, with further filtering based on the limitations on the language selected (English), thematic area (Sociology) and on the sources selected (Journal Articles). Scopus yielded 118 hits and Web of Science 82 hits. This resulted in a combined total of 200 journal articles.

[2] During the first period, the following numbers of tweets were extracted: 7,531 for #NoMask, 83,418 for #Covid-19, and 62,805 for #GreenPass.

[3] During the second period, the following numbers of tweets were extracted; 7,491 for #NoMask, 46,743 for #Covid-19, and 43,143 for #GreenPass.

groups that showed persistence over time during the pandemic and post-pandemic period.

3. *Qualitative step*: this step focused on a campaign of narrative interviews conducted with spokespersons and members of the groups involved in the Green Pass and Covid-19 vaccination protests in Italy. Interviews were conducted in two different periods: 36 narrative interviews during the emergency period (September 2021-January 2022) and 14 narrative interviews a year after the end of emergency in Italy (March-May 2023)[4].

In order to analytically investigate these protests, several thematic clusters were analysed in accordance with the 5W+1H model (Who, What, Why, When, Where and How). The content of the 50 narrative interviews was analysed using the 5W+1H model, through the NVivo program. This final step aimed at enriching the results achieved by the previous research steps. The results of these interviews aimed at highlighting the emerging characteristics of the protests, such as the motivations of the participants, the degree of polarisation and radicalisation of actions and thoughts, the degree of scientific knowledge related to the big issues of the protests, and whether these issues are still relevant.

3. The theoretical framework

In recent decades, scholars have observed that issues related to science and technology have become central to public debates, with discussions increasingly extending into politics, health and daily life (Bessi et al. 2015; Achterberg, De Koster and Van der Waal 2017). The rise of Web 2.0 has played a pivotal role in this shift, altering how people communicate and acquire information (Pilati and Miconi 2022). This transformation has not only made scientific and technological knowledge more accessible but also disrupted the traditional role of experts, leading to a new dynamic in public discourse where non-experts and citizens play an increasingly prominent role. In this context, the notion of the 'professional expert' has been undermined, and public debates have become increasingly politicised (Schäfer et al. 2022). The politicisation of science refers to the ways in which scientific controversies are instrumentalised to gain political, social or economic advantage. The growing distrust in experts, medical institutions and political authorities has given rise to a proliferation of alternative narratives that challenge the mainstream scientific consensus. These alternative narratives often take the form of conspiracy theories, misinformation and radical activism (Blume 2006; Murthy 2021).

The Covid-19 pandemic served as a catalyst for the intensification of these dynamics, highlighting the complex relationship between public health policies, individual freedoms and societal trust. During the early months of the pandemic, fear and uncertainty led to widespread protests against lockdowns, restrictions and mask mandates. These protests were not merely reactions to health measures but also manifestations of deeper political and ideological tensions. As the pandemic unfolded, the scope of these protests expanded to include opposition to the vaccine campaign, with significant numbers of people questioning

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[4] The sample is composed as follows: in the first phase (36 interviewees) by 21 men and 15 women, age ranging from 20-50, mainly 45/50 years old and distributed geographically between the South, the Centre and the North of Italy, of which 25 were activists and 11 spokespersons of associations and collective groups; in the second phase (14 interviewees) by 10 men and 4 women, age ranging from 40-60, mainly 45/50 years old and distributed geographically between the South, the Centre and the North, of which 4 were activists and 10 spokespersons of associations and collective groups.

the safety and necessity of Covid-19 vaccines. This opposition was often framed in terms of personal liberty, with some protesters arguing that mandatory vaccination and other public health measures infringed on their fundamental freedoms (Sorell and Butler 2022).

One of the most striking features of the pandemic period was the rise of anti-science activism, particularly in Western countries, where groups such as the 'No-Mask' protests and the 'No-Vax' campaign gained traction. These groups were characterised by a deep distrust of health experts, governments and mainstream media, as well as a willingness to embrace alternative, often conspiratorial explanations for the pandemic and its response. In some cases, these groups rejected the idea of Covid-19 altogether, dismissing it as a hoax or exaggeration. In others, they opposed the preventive measures – such as mask mandates and lockdowns – arguing that they were unnecessary or harmful. The anti-vaccine groups gained significant attention, with their vocal opposition to mass vaccination campaigns and the spread of misinformation about vaccine safety (da Silva et al. 2023).

In Italy, where early and stringent lockdown measures were implemented, the pandemic served as a flashpoint for broader political and social groups and movements. The Italian government's response to the pandemic included not only restrictions on movement and gatherings but also the introduction of a mandatory 'Green Pass', a digital certificate that allowed individuals to prove their vaccination status or recent negative test result. The Green Pass became a focal point of opposition, with many people viewing it as a symbol of government overreach and a violation of personal freedoms. In response, protests erupted across the country, initially organised by grassroots groups and later gaining momentum as the anti-vaccine sentiment spread (Pilati and Miconi 2022).

The 'No Green Pass' protests in Italy exemplified how pandemic-related grievances became intertwined with radical political ideologies. What began as opposition to lockdowns and restrictions on personal movement gradually morphed into more organised collective actions against vaccine mandates and the Green Pass. This shift was marked by the increasing involvement of radical groups and political actors, who saw the pandemic as an opportunity to rally against the state's power and promote anti-establishment ideologies. While some participants in these protests were motivated by genuine concerns about public health policies, others were more concerned with issues of individual liberty and the perceived erosion of democratic freedoms (Cervia et al. 2023).

The radicalisation of these groups was facilitated by the proliferation of conspiracy theories, which gained traction both online and offline. Social media platforms, particularly Twitter (Anwar et al. 2021), Telegram and Facebook, became key spaces for the dissemination of misinformation and radical ideas (Hosseinmardi et al. 2021). These platforms allowed individuals to connect with like-minded people, share alternative narratives, and reinforce their beliefs in the face of mainstream scientific consensus. This online ecosystem of radicalisation was compounded by the increasing distrust in traditional media sources, which many saw as complicit in spreading government-approved narratives and suppressing dissenting opinions (Bridgman et al. 2020).

The impact of these communities extended beyond the immediate health crisis. As the pandemic progressed, the issues raised by anti-lockdown and anti-vaccine groups began to shift and evolve. While the primary focus remained on health-related policies, new conspiracy theories emerged that linked the pandemic response to broader political, social and economic issues. For example, some groups began to question the origins of the Covid-19 virus, suggesting that it has been deliberately engineered in a laboratory or released as part of a larger geopolitical agenda. These theories, though unsupported by scientific

evidence, were widely disseminated online and embraced by various radical groups (Richards 2022).

In addition to vaccine-related conspiracies, other issues came to the fore, such as the expansion of digital surveillance and the growing role of artificial intelligence in monitoring and controlling populations. Fears of mass surveillance, combined with concerns about privacy and civil liberties, gave rise to new conspiracy theories about the role of digital technologies in government control (Abiri and Buchheim 2022). The idea of a 'digital identity'[5], linked to personal data and biometric information, became a central theme in these discussions. Some protesters framed the Green Pass and similar digital measures as part of a broader agenda to create a system of mass surveillance and social control (Rowland and Estevens 2025).

In the post-pandemic era, the persistence of these radical beliefs and conspiracy theories continues to shape public discourse. The fear and mistrust that characterised the pandemic have not dissipated but have instead taken on new forms. For example, the ongoing Russia-Ukraine conflict has become a new source of contention, with some conspiracy theorists framing Russia as a victim of Western aggression and portraying the war as a 'false flag' operation designed to destabilise global politics. Similarly, fears about bio-laboratories and the safety of new technologies continue to fuel distrust in the scientific community (de Swaan 2023).

The shift in focus from Covid-19 to broader geopolitical and technological issues reflects the adaptability of conspiracy theories. These theories are not confined to any single issue but instead evolve in response to changing political and social contexts (Anwar et al. 2021). The pandemic acted as a catalyst for the growth of radical groups, but these groups have not disappeared with the decline of the immediate health crisis. Instead, they have transformed into broader political and ideological challenges, often centred around issues of individual freedom, government control, and the role of science and technology in society.

The pandemic has not only exposed the fragility of social trust but has also revealed the enduring complexity of political and ideological divides. The persistence of conspiratorial and radical groups, both online and offline, highlights the challenges of managing public trust in a rapidly changing world (Kirmayer 2024). While the immediate crisis of the pandemic may have subsided, the broader social and political dynamics it exposed continue to shape public life. As such, the radicalisation and politicisation of science remain critical issues that will define the future of democratic societies. The evolution of these communities, from health-related protests to broader geopolitical and technological concerns, underscores the deep-rooted and multifaceted nature of social complexity in our times.

4. During and after the pandemic crisis: analysis of online communication in radical and conspiratorial groups

The evolution of online communication, accelerated by the rise of Web 2.0, has profoundly reshaped how individuals interact, share information and engage in public

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[5] Digital identity refers to the collection of personal data, credentials, and digital footprints that define an individual in online environments. It encompasses various elements, including authentication mechanisms (e.g., biometrics, passwords), online behavior, and social media presence (Robles-Carrillo 2024). With the rise of digital services, ensuring security and privacy in identity management has become a critical concern, particularly regarding identity theft and data breaches. Emerging technologies like blockchain and decentralised identity models aim to enhance security and user control over digital identities (Sullivan and Tyson 2023).

discourse. This change has not only broadened access to scientific and technological knowledge but has also undermined the authority of experts, enabling non-specialists and citizens to play a pivotal role in shaping debates. The politicisation of science, in which scientific controversies are exploited for political, social or economic ends, has intensified scepticism toward experts, medical institutions and political authorities, contributing to the spread of misinformation, conspiracy theories and radical activism (Pilati and Miconi 2022; Schäfer et al. 2022; Murthy 2021). In this context, network analysis proves to be essential in examining the three distinct phases of online discourse related to the pandemic and post-pandemic period (the protest phase, the end of the emergency, and a year later), providing insight into how digital communities evolve, persist, and shift their narratives over time. By analysing hashtags and key interactions, it becomes possible to trace the trajectory of conspiracy and protest movements – from scepticism towards pandemic restrictions and health measures to sustained opposition against government policies and institutional authority. This demonstrates how online spaces provide a continuous feedback loop in which participants turn their discussions into highly contentious debates while simultaneously reinforcing shared beliefs. Such spaces allow activism to persist beyond its original cause and adapt to new political and social contexts.

In this regard, the content analysis of online protests will prove to be useful, as it will focus on recurring topics related to protest groups that have shown the greatest persistence during and after the pandemic, identifying key themes in discussions over time through the use of automated lemmatisation programmes (T-Lab).

4.1 Online communication, hubs and networks

The study on the evolution of online communication during and after the pandemic will identify which conspiratorial and radical groups persisted during this period of crisis and in the year following it. It will analyse tweets extracted across three distinct phases: the protest phase (November 2020-December 2021), the end of the emergency (March 2022), and a year later (March 2023). Social media platforms, particularly Twitter, Telegram and Facebook, played a key role in spreading misinformation and radical narratives, enabling like-minded individuals to connect, exchange alternative viewpoints, and reinforce their opposition to mainstream scientific consensus (Anwar et al. 2021; Hosseinmardi et al. 2021). The research focuses on three main hashtags – #Covid-19, #No-Mask and #GreenPass – to trace the shift from general pandemic discourse to politically charged protests, highlighting the increasing polarisation of discussions along political and ideological lines.

During the Protest Phase (November 2020-December 2021), #Covid-19 initially functioned as a widely used, informational tag encompassing institutional messaging, public health updates and general discourse about the pandemic. Early discussions were dominated by government agencies and health organisations promoting safety measures. However, fear and uncertainty fuelled the emergence of protest groups characterised by deep distrust of health authorities, governments and mainstream media. These groups ranged from those who feared the effects of the Covid-19 virus – believing that the pandemic originated from experiments conducted in the Wuhan laboratory – to sceptics who questioned the severity of the virus and absolute deniers who dismissed it as a hoax, viewing public health measures as an unjustified restriction of their individual freedoms. The No-Mask movement exemplifies these latter two trends: in this regard, this movement quickly emerged as a prominent transnational network opposing mask mandates and other public health measures, portraying them as authoritarian violations of civil liberties. Rooted in anti-establishment and libertarian
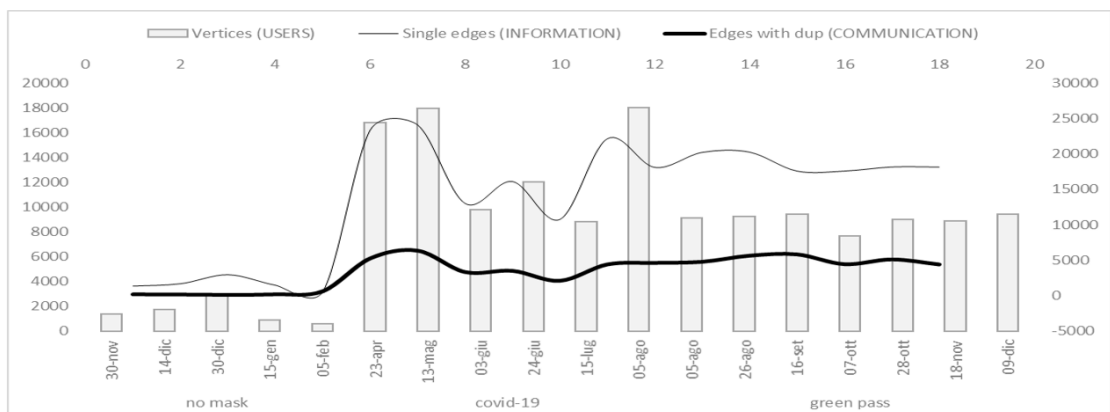
ideologies, it gained traction across multiple countries, becoming a powerful symbol of resistance.

In this initial phase, anti-vaccine groups also emerged ('No-Vax'), along with 'No Green Pass' groups, the latter specifically within Italy: initially less visible, they expanded significantly as vaccination campaigns intensified. When mask mandates were lifted, the 'No-Mask' movement began to decline, and online debates primarily shifted toward vaccine mandates and digital health passes (Sorell and Butler 2022). This change reflected a broader transformation in the dynamics of protest, evolving from opposition to the immediate restrictions of the pandemic to resistance against the requirement to hold the Green Pass – the digital certificate that granted access to public spaces for vaccinated individuals in Italy (Cervia et al. 2023).

The introduction of the mandatory Green Pass in Italy triggered a strong political and ideological reaction, with many perceiving it as an excessive exercise of government power and an attack on personal freedoms. This led to the development of the 'No Green Pass' movement, which quickly became the most structured and persistent collective group within the protest networks of the pandemic era, demonstrating high levels of mobilisation, particularly among anti-establishment users (Fig. 2).

Fig. 2 – Structures of Networks: users and edges in 2021
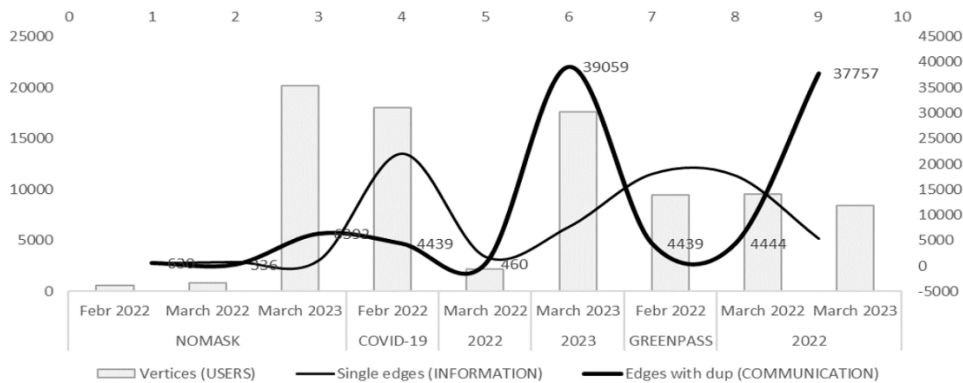

Between December 2021 and March 2022 (the end of the emergency), institutional communication declined while debates became increasingly politicised. Discussions about Covid-19, which had initially been neutral and aligned with official messaging, largely faded. However, during this phase, scepticism intensified, with protests and concerns shifting towards the potential long-term side effects of the Covid-19 vaccination. Misinformation about vaccine risks became more widespread, further reinforcing distrust and fuelling conspiracy narratives (da Silva et al. 2023).

Although the number of users engaged in discussions about the Green Pass decreased, by March 2023 – one year later – debates surrounding the certificate and vaccine fears remained active, gradually expanding to encompass other topics. At this stage, criticism of the former Italian Prime Minister Mario Draghi had become a central theme, with users targeting not only his policies related to the Green Pass and vaccine fears but also his decisions on international affairs, particularly Italy's role in the Russia-Ukraine conflict. This

transformation highlights how digital protest evolve over time, expanding their narratives to address both national and global concerns (Fig. 3).

Fig. 3 - Networks: users and edges in 2022-23

The study highlights the long-term persistence of radical and conspiratorial groups in digital spaces. While the 'No-Mask' movement faded once pandemic restrictions were lifted, the 'No Green Pass' protest evolved into a broader ideological group. This transformation demonstrates that online protest can shift their focus toward new political and social concerns. The analysis also underscores the role of social media in sustaining such groups, providing a space where radical discourse continues to thrive well beyond the immediate crisis.

Complaints about the Green Pass and vaccine mandates evolved into deeper political and ideological conflicts, reflecting the shifting and multifaceted nature of online discourse. The continued presence of these digital protest and conspiracy networks underscores their lasting influence on the public debate, as online communities remain key hubs for political activism, misinformation and ideological shifts.

4.2 Online protests: content analysis

The analysis of online communication during and after the pandemic has highlighted the strong and enduring presence of the 'No Green Pass' movement in Italy. Unlike the 'No-Mask' movement, which diminished over time, the 'No Green Pass' movement in Italy demonstrated remarkable persistence, evolving beyond its initial focus on vaccine mandates to encompass broader political and social grievances.

During 2021 and 2022, online protests regarding the Green Pass primarily revolved around opposition to government-imposed restrictions, particularly the requirement to present the Green Pass in certain locations and the obligation to get vaccinated.

Fears surrounding Covid-19 vaccination appear to have fuelled discussions about Draghi as a political figure, contributing to the spread of increasingly ideological and conspiratorial narratives. By 2023, these discussions had expanded to focus on Draghi's decisions regarding the Russia-Ukraine war, as reflected in dominant clusters such as 'Opinions' (35.21%) and 'Draghi' (26.75%) (Table 1).

Table 1 – Elementary contests for each cluster and period (n. 158,932)

Clusters	1.Government	2.Draghi	3.People	4.Opinions	5.School/ Users	6.Work
'Greenpass' in 2021	13.93%	15.33%	13.2%	25.77%	15.9%	15.88%
'Greenpass' in 2022	13.19%	18.06%	18.8%	19.77%	23.44%	6.73%
'Greenpass' in 2023	10.78%	26.75%	10.53%	35.21%	10.02%	6.72%
TOTAL	*13.51%*	*16.83%*	*13.5%*	*26.15%*	*16.06%*	*13.95%*

In this regard, the analysis of lexical correspondence (Fig. 4) highlights the prevalence of two distinct thematic groups: 'Opinions' and 'Draghi', which emerge as opposing viewpoints.

The 'Opinions' cluster, on the other hand, encompasses themes that were dominant in 2021, 2022 and 2023, such as public protests against local restrictions in Italy and vaccine mandates, with keywords like *limitazioni* (limitations), *imposizione* (imposition) and *No Green Pass*. The issues related to the Green Pass remained persistent even in 2023; however, these concerns have evolved into other issues highlighted by the 'Draghi' cluster.

The 'Draghi' cluster reveals a subgroup that strongly opposes Draghi as a political figure, frequently associating him with terms such as *ricatto* (blackmail), *iniettato* (injected), *paura* (fear) and *Nazista* (Nazi). This suggests that the 'No Green Pass' groups opposed the former prime minister for his policies on vaccination mandates, causing not only opposition to state impositions but also the origin of fears towards the vaccine. In addition, opposition to Draghi was due to his pro-Ukrainian stance in the Russian/Ukrainian conflict, which aligns with US, EU and NATO policies (Hosseinmardi et al. 2021; de Swaan 2023): the involvement of the United States and Europe in supporting Ukraine against Russia added complexity to this perspective. As a result, Putin appears to have leveraged this alignment in favour of Ukraine to portray Russia as a victim, influencing the perspectives of certain individuals who had previously protested against vaccine composition and the Green Pass (Adler 2022). This ideological shift fuelled the spread of conspiracy theories, neo-fascist denialism, and widespread criticism of government decisions. Protest discourse also radicalised and became characterised by increasingly violent and polemical language, particularly regarding vaccination policies and state interventions.

The cluster analysis is reinforced by a broader thematic analysis that identifies 20 key themes (Fig. 5), illustrating the relative weight of emerging issues during the pandemic and post-pandemic periods, as well as their interconnections. The analysis identifies a more moderate section, highlighting protests against the State's decision to require the Green Pass in certain places, such as restaurants (e.g. ristorante [restaurant], Super Green Pass), and the obligation to get vaccinated (e.g. imposizione [imposition]).

At the same time, a more polemical and radical section is present, featuring themes that indicate the evolution of online discussions – initiated in 2021-2022 and continuing into 2023 – towards extreme protests against Draghi's government management. These protests were often accompanied by threats and highly aggressive rhetoric (e.g., *sorcio* [rat], *tradimento* [betrayal]*, pericolo* [danger] and *vergogna* [shame]).

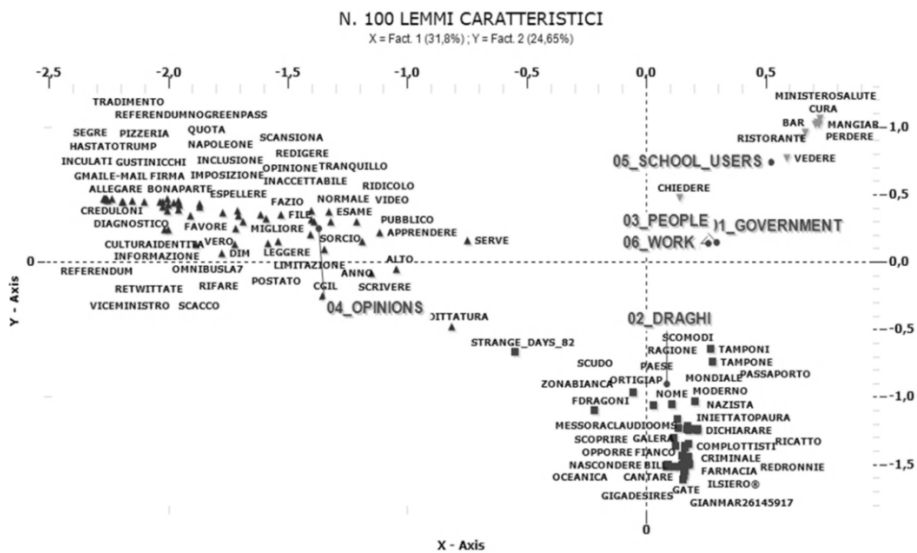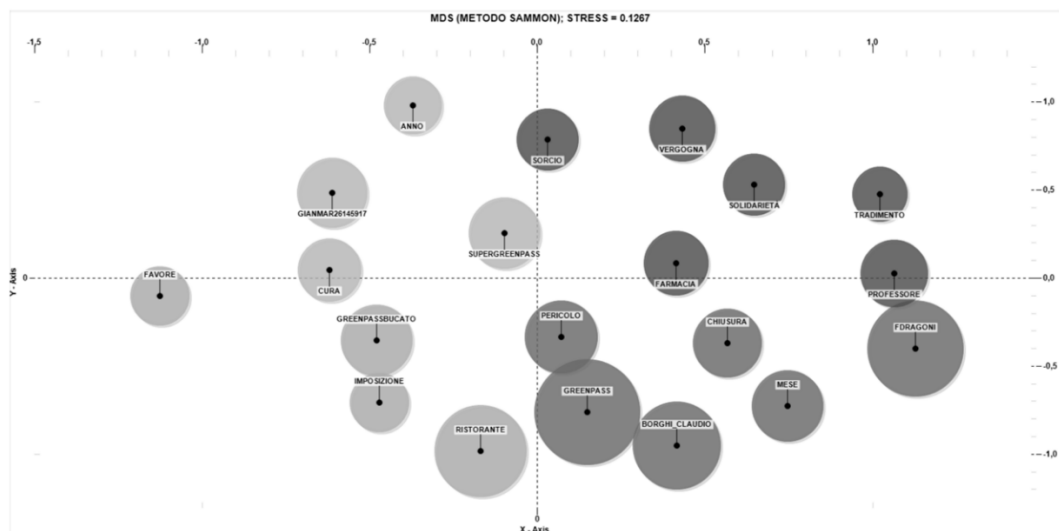Fig 4 – ACM - Clusters and Lemmas

Fig. 5 – Emergent themes – MDS

The analysis of online protest discourse reveals a clear evolution in the themes and rhetoric of the 'No Green Pass' movement, shifting from opposition to Green Pass restrictions and vaccine mandates to a broader ideological critique of government policies. The emergence of increasingly radicalised language, conspiracy theories, and extremist

narratives highlights the complexity of these protests, which have expanded beyond concerns about personal freedom restrictions to encompass a wider socio-political discontent, fuelled by fears and apprehensions about vaccination and Draghi's decisions regarding the Russia-Ukraine war. To further explore these dynamics, the next phase of this study will focus on narrative interviews with 'No Green Pass' protesters. This qualitative approach will enable a deeper examination of the themes identified in online protests, assessing their prevalence, meanings, and the motivations driving individuals to participate.

5. Offline protests during and after pandemic: a hermeneutical analysis

As briefly outlined in the research design section, the study integrated two complementary approaches: an analysis of digital discourse and an in-depth investigation through narrative interviews in order to combine the main themes that emerged in online discussions surrounding the 'No Green Pass' protests and to investigate whether these themes are reflected in the personal experiences of participants.

The analysis of online protests held by the 'No Green Pass' movement in Italy highlights its evolution from a collective focused on vaccine mandates and opposition to the Green Pass (2021–2022) to a broader ideological mobilisation centred on government control, democracy and international issues (2023). These themes were further explored through the analysis of a substantial number of narrative interviews conducted with individuals who actively participated in the 'No Green Pass' protests in Italy. The interviews, conducted during and after the pandemic period and codified through the 5W+1H model (Who, What, Why, When, Where + How), were analysed to assess whether the content analysis of online protests aligns with personal testimonies and how the 'No Green Pass' movement evolved in the post-pandemic context.

Through the 5W+1H model, we will first identify the key actors involved in the 'No Green Pass' movement (Who), analyse their roles (What), and examine why they mobilise around Green Pass issues (Why). We will assess when and where these protests took place, evaluating whether certain dates and locations will be important for understanding the movement's activities (When + Where). Additionally, we will explore how activists organised demonstrations, the strategies used to spread their message, and the influence of their actions on public discourse (How).

Regarding the post-pandemic period, the analysis will focus on whether the same actors continue to discuss Green Pass-related issues and whether the topic itself remains central to their activism (Who and What). It will examine why certain individuals or groups persist in their activism (Why), when and where they might seek to organise future protests (When + Where), and how they structure their mobilisation efforts in the post-pandemic context (How).

5.1 During the Pandemic: the awakening of local dissent

Government restrictions aimed at containing infections gave social media a crucial role in the protests against the Green Pass, allowing for the real-time dissemination and organisation of demonstrations. The Internet was not only an essential tool for debating the Green Pass but also for organising online mobilisations and facilitating the rapid spread of ideas and dissent: *through social media we are able to send each other communications and invitations to meet online even at the last minute* (#08 spokesperson, Movimento Orgoglio Partita Iva). All this is confirmed by the analysis of online discussion groups from the 2021-2022 period, through the 'Opinions' cluster which revealed the theme of new pandemic restrictions,

emphasised by the keywords *limitations* and *imposition*. In particular, the 'No Green Pass' slogan shows how debates evolved into online protests, focusing on opposition to the requirement to present the Green Pass in certain places (Why).

In this regard, two main strategies of protest emerged (Earl 2016): online participation, i.e. the organisation of petitions through the use of social networks: *through the Telegram channel we used to receive, for example through e-mails, requests and offers or we also wrote letters* (#28 spokesperson, Coordinamento Libertà Livorno); and online organising, i.e. the organisation of campaigns or collective protests online, such as "electronic civil disobedience" protests (Serra 2002) implemented through the Internet, which serves as a means of connection, information, but also support for the protesters*: the data show that more and more users are moving to Telegram [...] here they can easily buy fake certificates, an activity that has literally exploded in recent months* (#30 activist); *we bring our experiences and knowledge, allowing us to tell people what truly matters to us, and this enables us to grow in numbers* (#09 spokesperson, Movimento Orgoglio Partita Iva) (Where + How). Online protest groups spontaneously created a network of knowledge *[...] through social media, the message is conveyed to a much broader audience. I posted videos on TikTok, Twitter* (#12 activist); nevertheless, the Internet has proven to be not only a space for communication and sharing but also a platform for the spread of conspiracy theories (Hosseinmardi et al. 2021) (Where). As highlighted by the interviewees, they perceived the protest group differently: *some saw it as a civic network and a space for sharing knowledge* (#09 spokesperson, Movimento Orgoglio Partita Iva), while others considered it *a direct reaction to the restrictions imposed by the State.* (#13 spokesperson, AFI – 'No Green Pass Torino') (What).

Over time, these online discussions and protests evolved into fully-fledged mobilisations organised across Italy against the Green Pass, which protesters perceived as a violation of fundamental rights (Cervia et al. 2023): *we are no longer free to choose; this is what unites us and drives us to protest* (#7 activist), a slogan repeated multiple times and becoming a unifying element among the participants (Why).

Initially, the 'No Green Pass' groups developed online, but with the easing of measures, they then moved to the streets, involving a wide range of participants, including associations, organisations and individuals not affiliated with pre-existing groups, but *united by the belief that the Green Pass was an unconstitutional measure* (#19 spokesperson Comitato eoliano per la tutela di diritti fondamentali) (Who). Therefore, the squares regained their role as places of dissent, within which *we try to create something new, something positive to fight against everything that is happening with our bodies* (#15 spokesperson, Coordinamento 'No Green Pass Napoli') (Where + How).

The peak of mobilisation occurred after Decree-Law No. 127 (September 21, 2021), which required workers to show a Green Pass or risk losing their jobs. Many condemned this as *vile blackmail* (#18 activist), fuelling nationwide demonstrations, especially after October 15, 2021, when the decree took effect (When).

The basic element that united the protesters against the Green Pass and against vaccines is that while acknowledging the emergency situation, the various ordinances presented critical issues in the individual measures to suspend the rights of constitutional freedoms: *the current concept of freedom is translated into having to present a certificate of vaccination for a vaccine that is not mandatory in the workplace* (#2 activist), and in particular, in relation to the vaccine obligation, the common thought is that the vaccine cannot be considered a tool to solve the emergency, especially in view of its limited immunisation capabilities, as even the pharmaceutical companies and regulatory agencies

repeatedly pointed out and as shown by epidemiological data from countries with high rates of vaccination: *those who have the Green Pass, those who have had the vaccine can infect others, so if it is not a health guarantee I would like someone to explain to me what it really is* (#5 activist) (What).

These feelings of outrage evoked references to historical periods: *the Green Pass reminds me of Nazi times; it creates discrimination* (#30 activist). This testimony reveals how some interviewees tended to express conspiratorial ideas, as highlighted by the keyword 'Nazi' within the 'Draghi' cluster in online discussion groups. This keyword will emerge, as we will see later, in discussions related to the Russia-Ukraine war (Why). Indeed, some protesters opposed the vaccination mandate, considering the Green Pass a tool of social control: *I am not against vaccines! I just can't stand having to show this certificate!* (#25 activist, Coordinamento Libertà Livorno).

As highlighted by the network analysis of the 'Draghi' cluster, underlining keywords as *ricatto* (blackmail), *iniettato* (injected) and *paura* (fear), the Internet and social networks became fertile ground for certain resistance groups to sow doubt, promote anti-scientific beliefs, and spread conspiracy theories: *if it is conspiratorial to be able to connect the underlying events that explain reality as the hidden fabric plots, then I am a conspiracist* (#20 activist). Also driven by emotionalism, they spread a climate of distrust by conveying ideas – in a conspiracy sense therefore – related to the safety of vaccines, *some people think of us as dangerous, perhaps because it is difficult to accept the truth, deception and also the fear of being a victim of the adverse effects of the vaccine* (36 activist), or about government control: *they needed the virus to create the Green pass and track people* (#1 activist), *like in China where you can be tracked with the app* (#09 spokesperson, Movimento Orgoglio Partita Iva), thus promoting conspiracy theories that challenge directives and truths widely supported by the scientific community: *they passed it off as being for our health, but really it's just to have control, to see all our movements, where we go, what we do, how much we spend* (#26 activis). (Where + Who).

These statements highlight how opposition to specific political decisions was intertwined with a broader distrust of institutions and science itself. This scepticism would continue to persist in the post-pandemic period, fostering the spread of conspiracy theories, which expanded to new topics.

5.2 Beyond the pandemic: the spread of conspiratorial narratives (war, digital identity, bio-labs)

In the post-pandemic period, those who had protested against the Green Pass became key drivers of increasingly conspiratorial and radical forms of dissent. What began as opposition to perceived violations of personal freedoms evolved into a broader and more extreme wave of distrust towards institutions and science. As health-related restrictions eased, their opposition shifted the focus to new issues.

Former 'No Green Pass' activists remained active on Twitter, Telegram and Facebook, redefining their discourse around these new topics and using a far more polemical and ideological language compared to the issues surrounding the Green Pass (Who+Where). This was evident in the online protests analysis, which highlighted the emergence of an increasingly radicalised form of discourse, conspiracy theories and extremist narratives. The analysis of online protests, conducted in 2023, revealed a shift towards more extreme debates against the Draghi government's policies, with threats and highly aggressive rhetoric related to the former prime minister's stance on the Russia-Ukraine war (de Swaan 2023). The

ideological shift extended to a reinterpretation of the Russia-Ukraine war, which activists saw as a continuation of social control mechanisms tested during the pandemic (What): according to some former members, if *Covid-19 was a political experiment in social control aimed at rebooting the global economy* (#8 spokesperson, Coordinamento Firenze Consapevole), in this case, the war has been interpreted by political institutions as *a new justification to further limit people's autonomy of movement* (#10 spokesperson, Coordinamento Fronte del Dissenso). The former activists extended their online arguments about the war through the organisation of new protests across the country, in particular the ones held in Pesaro in May 2023; in these protests, former members explicitly linked pandemic restrictions to opinions on the war, as reflected in the slogan *"War and pandemic mean the same strategy"*(#4 spokesperson, Movimento Resistenza Radicale) (When+Where).

The interviews confirm and highlight not only the issue of the war but also other topics that had already emerged during the pandemic period, particularly the opposition to digital identity systems and concerns about the alleged construction of bio-laboratories in Italy (Rowland and Estevens 2025) (Why).

Many activists claimed that digital identity was a criminal trap designed to control people's movements, and that Italy was facilitating the construction of bio-laboratories similar to the one in Wuhan. In particular, the introduction of this form of digital identity was understood by former activists as *an extreme control plan by the national government and the State* (#6 – spokesperson Movimento Resistenza Radicale); meanwhile, former demonstrators fear that some laboratories similar to Wuhan will be built in Italy to carry out research and secret testing to develop bacteriological weapons: *the national protests organised in Pesaro, in which a large part of the former 'No Green Pass' activists participated, were also aimed at opposing the creation of certain bio-laboratories* (#7 spokesperson, Movimento Resistenza Radicale) (Why).

The motivation behind these new debates and protests remained rooted in the belief that the government was imposing increasing restrictions on civil liberties: *We are protesting because the government has turned society into a place where people can no longer live* (#4 spokesperson, Movimento Resistenza Radicale). As is evident from the voices of the interviewees, their opposition is not limited to specific measures – such as digital identity systems or mass surveillance – but is framed as a broader defence of what they consider fundamental rights: freedom of choice, privacy and individual autonomy (Why).

These protesters view their demonstrations as an act of resistance against an oppressive state apparatus, emphasising what they see as a systematic erosion of democracy and individual freedoms. Similarly to the analysis of interviews with 'No Green Pass' members during the pandemic, their rhetoric is often filled with historical references, drawing parallels between current policies and totalitarian regimes or dystopian scenarios. While the 'Draghi' cluster, within the online analysis, had already highlighted a subgroup strongly opposed to the former prime minister, associating him with the term 'Nazi', the analysis of interviews seems to deepen this perspective, suggesting that NATO, aligned with Italy and the United States, is the true force of imposition, seeking to erase national identities: *look at how they present Ukraine! As an occupation, a violation by the dictator Putin against Ukrainian citizens. But it's actually NATO – that is, Italy allied with the United States – that wants to erase the national identity of every state* (#12 spokesperson, Coordinamento Fronte del Dissenso) (What).

Taking these opinions into account, at an organisational level, the former 'No Green Pass' activists not only continued to debate or organise protests – like the one held in Pesaro

– but also began to train young activists with the aim of raising awareness about what they perceived as the *anti-democratic nature of the Italian political system* (#8 spokesperson, Coordinamento Firenze Consapevole). The rhetoric of these debates and protests has become increasingly conspiratorial and radical, portraying institutions as *a monstrous entity that ignores the needs of the people* (#10 spokesperson, Coordinamento Fronte del Dissenso) (How).

6. Conclusion

In the light of the above arguments, some observations can be made in order to highlight the principal issues emerging from the analysis, remembering that the core aim of this article is to take stock of the analysis results in order to better understand radical collective behaviours, triggering factors, and the individual and collective reasons underlying extremism and polarisation during and after the pandemic.

The sociological research on protests and social movements has been always related to several issues concerning radical behaviour and the defence of rights. A new wave of analysis needs to consider conspiracy and idealism as being very strongly related to emotional issues mainly coming from precarious individual identities and turbulent times.

It is certainly not necessary to call into question the established norms of collective behaviour to understand that the concept of conspiratorial belief is based on the same mechanism as rumour, even if it should be redefined in accordance with a strong distrust in the Institutions, along with precarity and apprehension, that have all intensified due to the pandemic. It is not new to speak about emotions when analysing protests: anger, fear, resentment, etc. are always reinforced and amplified into a collective action frame. The 'emotional energies' give rise to collective action, and some beliefs (conspiratorial in our analysis) arise as reasons for the protests. The emotional component intensifies, frequently leading to bias and populist conspiratorial theories; especially during the pandemic period, it was the feeling of fear that allowed the considerable spread of conspiratorial beliefs (Acampa, Crescentini and Padricelli 2023).

As highlighted by the results of the mixed method research presented above, during the Covid-19 pandemic individual actors and groups joined together against governmental restrictions and regulations, using some key words as the flagship of their protest. In the first step of the analysis, we identified the more relevant words and examined how they connect to each other in order to trace an outline of the main aspects of the process of mobilisation. The initial evidence suggests that the protests showed a lack of organised structure, but a very polarised background, using mobilisation as a non-political choice by referring to a form of idealism as a radical way to be against institutions and medical choices.

The dissent seems to directly emerge from events, institutional choices and subsequent channels of opinion. These spontaneous and impromptu collectives are based on opposition and disobedience to certain rules and display a similar structure to single-issue movements (Egorov 2015; Karpf 2018). What emerges from the data is that both 'No Green Pass' and 'No-Vax' base their dissent on arguments constructed around the illegitimate and unconstitutional nature of the impositions and on ideologies and principles primarily related to the concept of deprivation and enjoyment of personal freedoms: access to work, education, healthcare – constitutionally guaranteed freedoms that seemed widely violated by these decrees.

Indeed, the pandemic conflicts are characterised by the strong use of online media and virtual spaces for the participation and organisation of mobilisations. The conflicts were

viewed through a virtual prism on social networks and forums which represented the places for meeting, sharing and exchanging information; the strategies were aligned with those used by traditional social movements that have a more structured organisation. One of the reasons why protest and debate are continuing online and offline after the pandemic is, of course, the great ease of online communication, which is useful also for organising offline events, albeit not with the same intensity as before.

A comparison between the results of online and offline communication reveals that there are two souls of protest, sometimes separate, sometimes overlapping. The first is less structured and iridescent, built by individual private users who do not always define themselves as a community; they are more spontaneous but also ephemeral. The extent of this form of communication also shows us the weight of the protest group, which partly finds its strength and *raison d'être* in the sounding board of the online community. However, the comments on social media are extremely volatile and, just as the election campaign is becoming increasingly oriented by 'single issues', communication on social media could even be described as 'instant issues.' Online comments change and redefine themselves by taking positions on the most disparate topics (from the war in Russia, to local protests, to absolutely marginal issues). Offline communication, on the other hand, goes from a phase in which it is still unstructured and spontaneous (similar to online communication), to the definition of a protest mobilisation that is perceived as such. Online communication is more ephemeral, volatile and not always coherent, but it allows us to detect the broader, changing and unstable base of the protest, while the interviews show the structuring of real identities and an attempt to institutionalise the anti-systemic protest.

The comparison between online and offline protests reveals how digital activism has shaped and reinforced real-world mobilisation. Initially, online discussions focused on Green Pass restrictions and vaccine mandates, fuelling offline demonstrations. Over time, digital discourse expanded, shifting towards a general critique of the Draghi government. Social media platforms amplified scepticism, reinforcing distrust and spreading conspiracy narratives, even though these remained mostly discursive. In contrast, offline demonstrations transformed these narratives into concrete actions, mobilising people against perceived threats to freedom and state control. As a result, the analysis of the offline protests provides a deeper understanding of the themes and clusters identified in online communication, as it allows for a more thorough investigation of these issues through an analytical examination of the actions of these conspiratorial groups.

The two types of protests – online and offline – seem to complement each other as online discussions lay the groundwork for these groups to manifest their conspiratorial views through practical actions and dissent. At the same time, online chats allow these groups to remain in constant communication, persisting over time despite shifts in their ideological themes.

It cannot be denied that online dissent has continued after the pandemic, polarising opinion and circulating bias and populist conspiratorial theories. Therefore, if the controversy around the pandemic represented a sign of social crisis and multiculturalism played out in terms of opposition, which emerges as a decisive expression of contemporary society and grasps the extreme complexity of unresolved social relations rooted in past social processes and conditions, the persistence of a polarisation of conspiratorial views should be understood as a social problem that cannot be ignored.

Authors' contributions

Although this article is the result of a common reflection among the authors, Liana M. Daher wrote the following sections: 1. Introduction and 6. Conclusion; Giorgia Mavica wrote section 3. The theoretical framework; Simona Gozzo wrote section 4. During and after the pandemic crisis: analysis of online communication in radical and conspiratorial groups; Davide Nicolosi wrote section 2 Research design and, together with Alessandra Scieri, co-wrote Paragraph 5. Offline protests during and after pandemic: a hermeneutical analysis; specifically, Alessandra Scieri wrote subsection 5.1 During the Pandemic: the awakening of local dissent, while Davide Nicolosi wrote subsection 5.2 Beyond the pandemic: the spread of conspiratorial narratives (war, digital identity, bio-labs).

Declaration of conflicting interests

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