

UNCONVENTIONAL VOICES

Alternative Media Trends
in Europe and the US



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A decorative graphic consisting of a solid dark blue horizontal bar. To the right of the bar, a pattern of dark blue dots of varying sizes is arranged in a grid-like fashion, fading out towards the right edge of the page. The dots are larger in the middle of the bar and become smaller as they move away from it.

Summary

The digital age has given citizens access to an unprecedented abundance of news sources. Next to traditional media, so-called alternative media outlets are now readily available online. At the same time, these outlets and other actors can make use of social media platforms to disseminate their content directly to their users. THREATPIE assessed these

non-traditional media environments with two studies: a survey addressing alternative media use in 18 countries and a content analysis of Facebook and Twitter communication strategies of selected alternative media outlets in these countries in 2021 and 2023.

Key findings

ALTERNATIVE MEDIA USERS:

- In total, around 42% of the respondents report using alternative media. News sources of that kind are most popular in Greece, Romania, Spain, and Sweden. On the other hand, these are least popular in Belgium, Germany, and the UK.
- The majority of alternative media users report using both left-leaning and right-leaning outlets.
- On average, alternative media users tend to be male, younger, more right-leaning, and more politically interested than non-users.

SOCIAL MEDIA USERS:

- Facebook and Facebook Messenger are widely used across most countries while Telegram was consistently the least popular service.
- Significant variations in platform popularity can be observed across countries: For example, Facebook and Facebook Messenger are less popular in German-speaking countries than in the rest of our sample. Conversely, WhatsApp is more popular in German-speaking countries but is less widely used in Nordic countries.
- Facebook users are predominantly female, younger, and more interested in politics.
- X/Twitter users share most characteristics of Facebook users, except being predominantly male.

CONTENT AND STYLE:

- The social media content posted by alternative sources and actors is vastly dominated by links to other sites and generally consists of shorter (graffiti-style) messages. Yet, user engagement is on average higher for posts that include photos, videos or consist of longer text.
- With regard to style, rhetorical questions are most frequently used, and emojis are used the least frequently. User engagement is the highest for rhetorical questions.
- In terms of topics, references to political institutions and government actors, the COVID-19 pandemic, and law and order were most prominent in 2021; By 2023, the war in Ukraine was the most frequently mentioned topic.







Methodological note

The report builds on the two studies focusing on non-traditional media ecosystems. The first study originates from a representative survey but for the purpose of this report focuses on the users of 'alternative media' in 18 countries. The second study is based on traced data from social media profiles provided by Sotrender and focuses on the evolution of online discourse between 2021 and 2023.¹ The data are gathered from popular non-traditional or non-mainstream ("alternative media") outlets identified for this study (full list in Appendix²Table A11).

Study One

The survey data come from an online panel run in all countries on a representative sample (N=1500, except for Belgium and Switzerland N=1000). The fieldwork was coordinated and conducted by Kantar/Lightspeed between May 3 and June 24, 2022. Quotas on sex, age, and education were applied to ensure accurate estimations of the populations of interest.

Alternative media use as a source of information

The respondents were asked the following question: "Aside from traditional or mainstream news media, some people use alternative media. How often do you use alternative media, as listed below, to inform yourself about politics?" They could select from two separate items: "Politically left-leaning news outlets," and "politically right-leaning news outlets." For each, the frequency of use was assessed using a nine-point scale going from "Never" to "7 days a week." The responses were recoded into a binary variable where 0 = "Never use alternative media" and 1 = "use alternative media."

Usage of the social media platforms

The respondents were asked about their use of social media platforms with a simple question: "How often do you use the following social media platforms? Note that this refers to your general use of these platforms, not just news use." A follow-up question measured platform-specific use for the following apps: Facebook, Facebook Messenger, Twitter, Instagram, YouTube, WhatsApp, and Telegram. Respondents could assess their usage of each by saying that they "Do not have an account", "Have an account but never use it", or by their frequency of use using the following items: "Monthly or less, Weekly, Daily, or Several times a day." Respondents who did not use their account were recoded into "0" and others were recoded into a "1."



Image source: freepik.com (by rawpixel.com)

¹ 2022 is omitted on purpose as the results were strongly skewed by the war in Ukraine. Data for 2023 represents the period till July for Twitter, due to data access restriction.

² The list was completed at the end of 2020, so it is possible that some of the outlets changed their character.

³ Sotrender (www.sotrender.com) is a research company specializing in social media analytics, founded by experienced social researchers from the University of Warsaw.

Study Two

The traced data study focuses on a comparative analysis of communication on social media platforms, particularly on Facebook and Twitter/X. The project covers 18 countries and spans the period of 2021 and 2023. The study followed the Facebook and Twitter/X profiles of 137 alternative media sources, 53 of which were present on both platforms. A full list is provided in Table A11 in the Appendix, indicating also the activity of the profile and engagement from users. This list is not exclusive, but it is a dynamic mapping of the alternative media outlet environment.

The study aims to delve into various aspects of media communication, focusing on the impact of content type, communication style, and overall content of media profiles. The data is provided by [Sotrender](https://www.sotrender.com).³



Image source: unsplash.com (by Nathan Dumlao)

³ Sotrender (www.sotrender.com) is a research company specializing in social media analytics, founded by experienced social researchers from the University of Warsaw.

Analytical Axes:

CONTENT TYPE

Analyses of content type (Link, Video, Photo, Text only) as the strategic communication choices employed by profile owners. Determining post category is quite difficult, as the content may be mixed (for example Photo with Text).

THE RELATIVE INTERACTIVITY INDEX (RInI)

RInI is a proprietary metric developed by Sotrender and widely used since 2011 to measure relative user activity per post on Facebook. RInI indicates user engagement (reactions, shares, comments) rate per 1,000 fans of the page. The mean RInI allows to measure which post types receive the highest levels of response from the audience.

COMMUNICATION STYLE

Post Length

Posts are divided into six categories: No text (0 characters); Very short text (1 - 25 characters); Short text (to 499 characters); Average text length (to 999 characters); Longer text (to 4 999 characters); Very long text (more than 5 000 characters). Posts may contain different types of content (e.g., Photo with Text), here we control for the length of text irrespective of other content elements.

Signs

Profile owners may decide to use additional punctuation signs in their communication, often to enhance engagement or to intensify the emotional dimension of a post. We analyze four different elements: [?] Rhetorical questions intended to make the recipient further reflect on a topic; [!] Exclamation points intended to attract the attention of users or to emphasize the importance of the content published; 🧑‍🎨 Emojis used to attract the attention and interest of users; [#] Hashtags, meant to provide easier further engagement with conversations on related topics.



Content Analysis

Natural Language Processing (NLP) analyses of post content using the following procedure: non-English content is translated into English using the Google language mode, the content is simplified through lemmatization (nouns, adjectives, and proper names are kept), the content is screened for key topics. Additionally, network maps of the most popular themes are created using network analysis methods and igraph. The size of nodes reflects the number of occurrences, and links show positive correlations between keywords.



Vladimir Gaspov;



Challenges in
defining *alternative
media outlets*

Determining the scope and nature of “alternative media outlets” is a difficult task that has led to a plethora of answers. Alternative news media are typically contrasted with mainstream news media. The phrase ‘mainstream media’ generally refers to news sources that are both perceived as hegemonic and congruent with one another in terms of news coverage, framing, audience, and even tone or journalistic values. Mainstream media regularly battle against the presumption of liberal bias. The presumed homogeneity of mainstream media, and their promotion of dominant societal views, contrasts with the more diverse set of sources that have been labeled as alternative.

In the US, the term “alternative media outlets” has become quasi-synonymous with partisan, or right-wing media. However, this view is relatively narrow, as the concept has also been more broadly construed to include outlets that supply more diverse content to their audience, irrespective of ideology. This diversity may manifest itself through more heterogeneous news agendas, or greater visibility given to more diverse voices. Alternative media outlets may also be characterized by a different emphasis placed on journalistic norms and values. In the best cases, this may include investigative journalism, or open publishing journalism that may offer counter-narratives to mainstream news. On the other hand, this difference in journalistic norms may lead to the spread of democratically corrosive or unsubstantiated content.

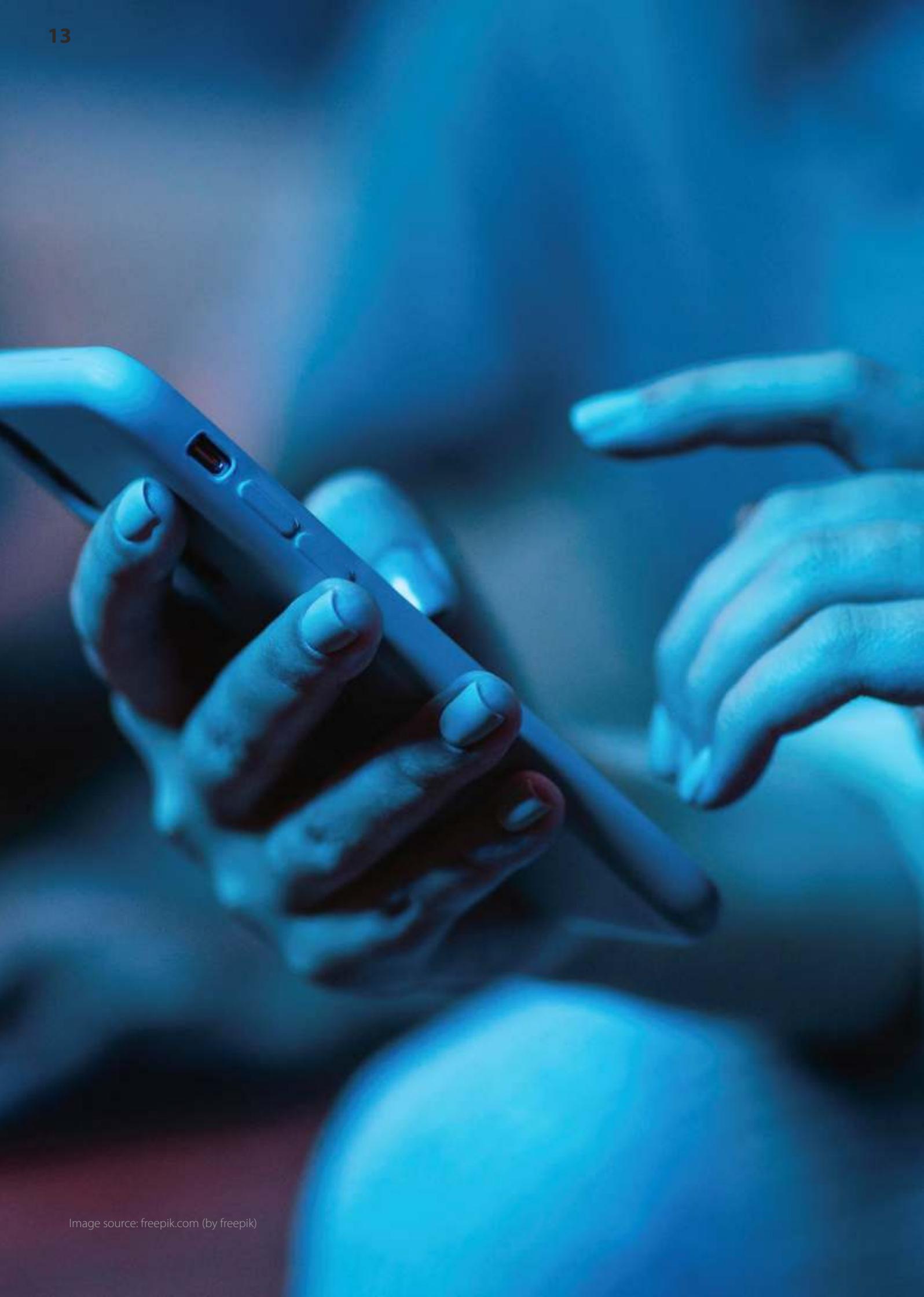
The distinction between alternative and mainstream news media is multifactorial. It may be contingent on national contexts, and the label “alternative” may capture several ways that a media can depart from the media that are perceived as dominant in a given country. Alternative media are defined not just by editorial orientation but also by news content, distribution, and audience engagement.

While the editorial orientation of a given news outlet can be more or less evident, [research by scholars from the University of Antwerpen](#) finds systematic differences between left-wing and right-wing alternative media. Left-wing alternative media stand out from mainstream news for giving voice to a greater set of societal actors, often from civil society, but they do not always stand out in terms of ideological radicalness. On the other hand, right-wing alternative media may focus on giving more

exposure to radical right-wing voices, with less concerns for societal representation.

Distribution is often a key feature of alternative media outlets. The flexibility that the internet and social media platforms offer plays a large role in their reputation of independence from mainstream news. This perception may be the result of the more horizontal or participatory nature of online media, but also of their more dysregulated aspects. With less stringent control over who can publish and what can be published online, online media may lower barriers to entry to a wide range of viewpoints, including those marginalized or simply ignored by mainstream news.

In this report the ‘alternative media’ are used for the ease of describing a variety of outlets that depart from mainstream media in different ways. The report employs data from Facebook and Twitter profiles of more than 130 alternative media outlets (there is no data from any traditional or mainstream media outlets). This includes platforms focusing on investigative journalism and independent reporting, partisan media that offer ideologically slanted content (e.g., conservative bias in France’s *Valeurs Actuelles* or progressive bias in *Daily Kos* in the US), conspiratorial or alternative narratives (e.g., *Epoch Times* in Romania and the US, or *ExpressZeitung* in Switzerland), sensationalist or tabloid-style reporting (e.g., *okdiario.com* in Spain, or *AC24cz* in the Czech Republic), New Age or spiritual topics (e.g., *Věk Světla* in the Czech Republic, or *Segnidalcielo* in Italy), economic analysis with distinctive viewpoints (e.g., *Alternatives Économiques* in France, or *Deutsche Wirtschafts Nachrichten* in Germany), and cultural, satirical, unionist, or otherwise niche media (e.g., **המקום הכי חם בגיהנום** in Israel for cultural). These alternative media sources often provide distinct perspectives, serving as a counterpoint to the mainstream media’s coverage of events and issues, and catering to audience segments with specific interests or viewpoints.





Results





Study One

User profiles: Consumers of alternative media outlets & social media platforms

Alternative media outlets

The popularity of alternative media outlets is difficult to measure due to issues with defining their scope, but also country or regional differences.

In the countries under investigation, 42% of respondents declared using alternative media outlets. In

Greece, Romania, and Spain non-mainstream media appear more popular, with 60% of the population declaring using it. Alternative media were least popular in Belgium, Germany, and the UK with only 25 % of respondents reporting to use such outlets (Figure 1).

Figure 1

Percentage of alternative media users per country

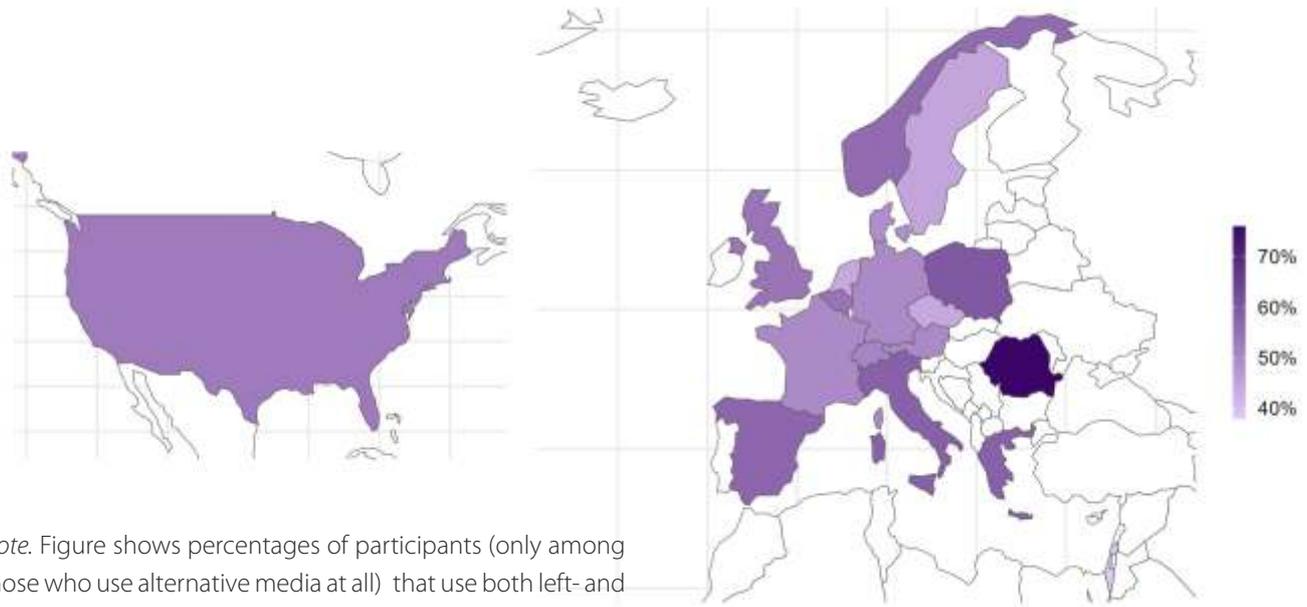


Note. N = 1,500 per country, except for Belgium and Switzerland (N = 1,000).

Focusing only on those participants who stated to use alternative media, around 50% of them declared to use *both* left-leaning and right-leaning outlets. However, there are differences between the countries included in the study (Figure 2). A comparatively high percentage of alternative media users using both left-leaning and right-leaning outlets were found in Romania at 76%. This behavior is less common in Israel, for example, with only 38% of respondents using sources from both sides of the aisle.

Figure 2

Percentage of alternative media users that use both left-leaning and right-leaning sources



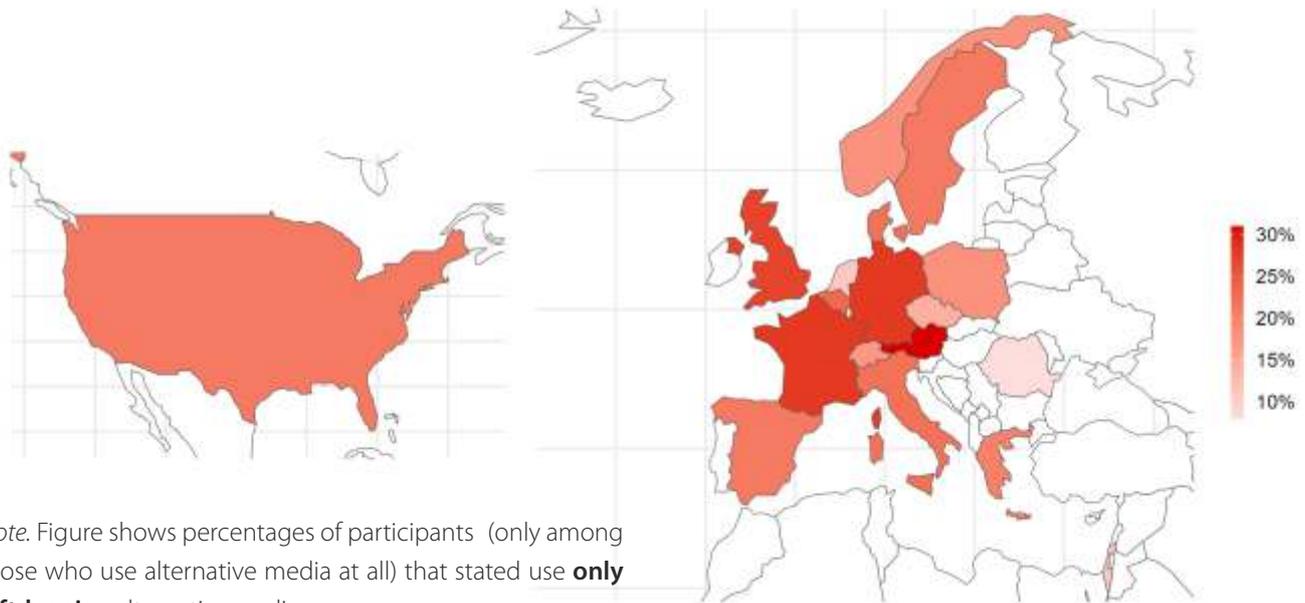
Note. Figure shows percentages of participants (only among those who use alternative media at all) that use both left- and right-leaning alternative media. Number of respondents ranges from N = 255 in Belgium to N = 951 in Spain.

Using alternative media from only one side of the political spectrum is a less common behavior among our respondents. On average, only 20% report using only left-leaning alternative media outlets; 27% of respondents consume only right-leaning alternative media sources.

Focusing on individual countries, the highest share of respondents using only left-leaning sources was found in Austria, Germany, and France with around 30% of respondents in each country (Figure 3). Using only right-leaning outlets was most common in Czech Republic, the Netherlands, and Israel, with up to 51% of respondents (Figure 4).

Figure 3

Percentage of alternative media users that use only left-leaning media



Note. Figure shows percentages of participants (only among those who use alternative media at all) that stated use **only left-leaning** alternative media.

Figure 4

Percentage of alternative media users that use only right-leaning media



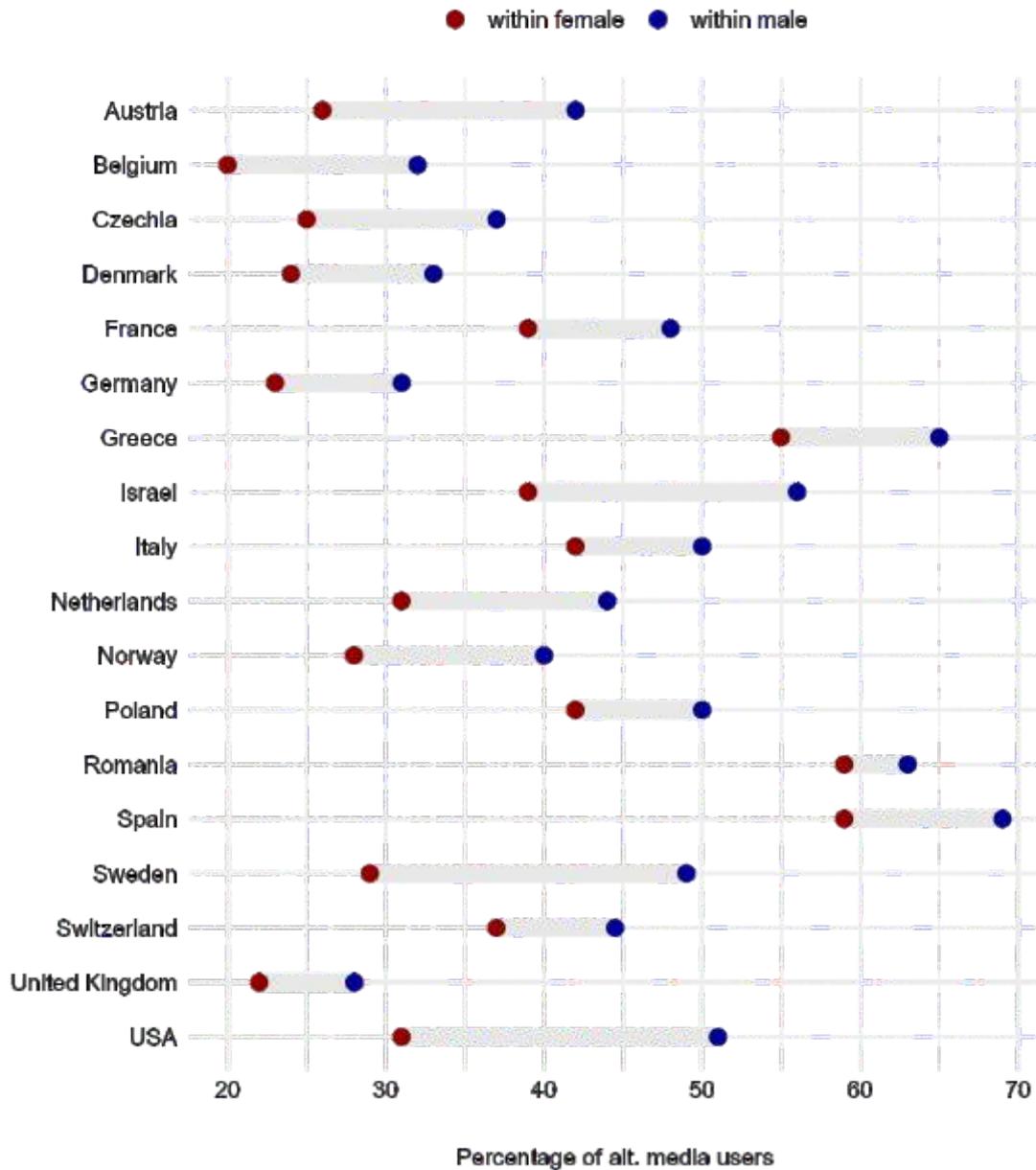
Note. Figure shows percentages of participants (only among those who use alternative media at all) that stated use **only right-leaning** alternative media.

Alternative media users can further be described in terms of certain socio-demographic characteristics. As Figure 5 indicates, alternative media users are predominantly male across all countries under study.

However, the gender gap in alternative media users varies across countries ranging from 20 percentage points in the US to only 4 percentage points in Romania.

Figure 5

Gender differences in alternative media users per country (%)



Moreover, with a mean age of 40, alternative media users tend to be younger than non-users (mean age: 43) (Figure 6, left panel). This trend was found in the vast majority, with the exception of Czech Republic and Greece.. However, the difference in mean age between alternative media users and non-users is only statistically

significant in a handful of countries (Israel, Netherlands, Romania, UK, and the US, please see Appendix).

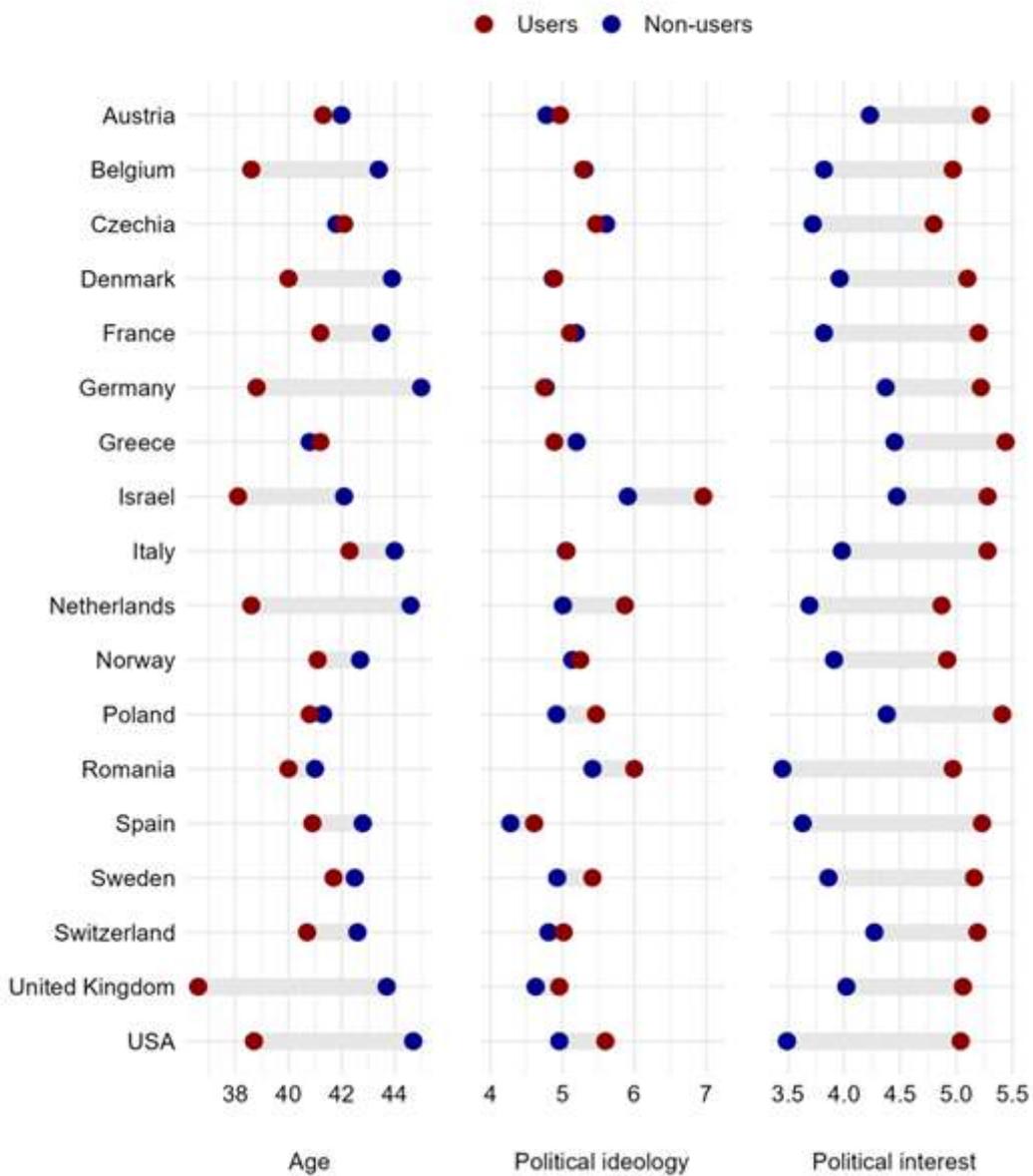
In terms of political leaning, users of alternative media lean more to the right than non-users (Figure 6, center panel). Again, this finding is consistent across most countries. In the few cases where alternative media

users lean to the left of non-users (Belgium, Czechia, Germany, Greece, and France), the difference in political ideology between the two groups was negligible. In contrast to age, the difference in ideological leaning between alternative media users and non-users was statistically significant in most countries, with the exceptions of Czech Republic, Israel and France.

Finally, alternative media users and non-users differ significantly in terms of political interest in all countries (Figure 6, right panel). Users of alternative media describe themselves as more interested in politics, with a difference of up to 1.6 scale-points between users and non-users in Spain, Sweden, and the UK.

Figure 6

Mean age, political interest, and political ideology for alternative media users and non-users by country



Note. Age was measured in years; political ideology on a 10-point scale (0="left" to 10="right"), political interest on a 7-point scale (1="not interested at all" to 7="very interested"). Please refer to the Appendix for statistical significance of differences

Social Media Platforms

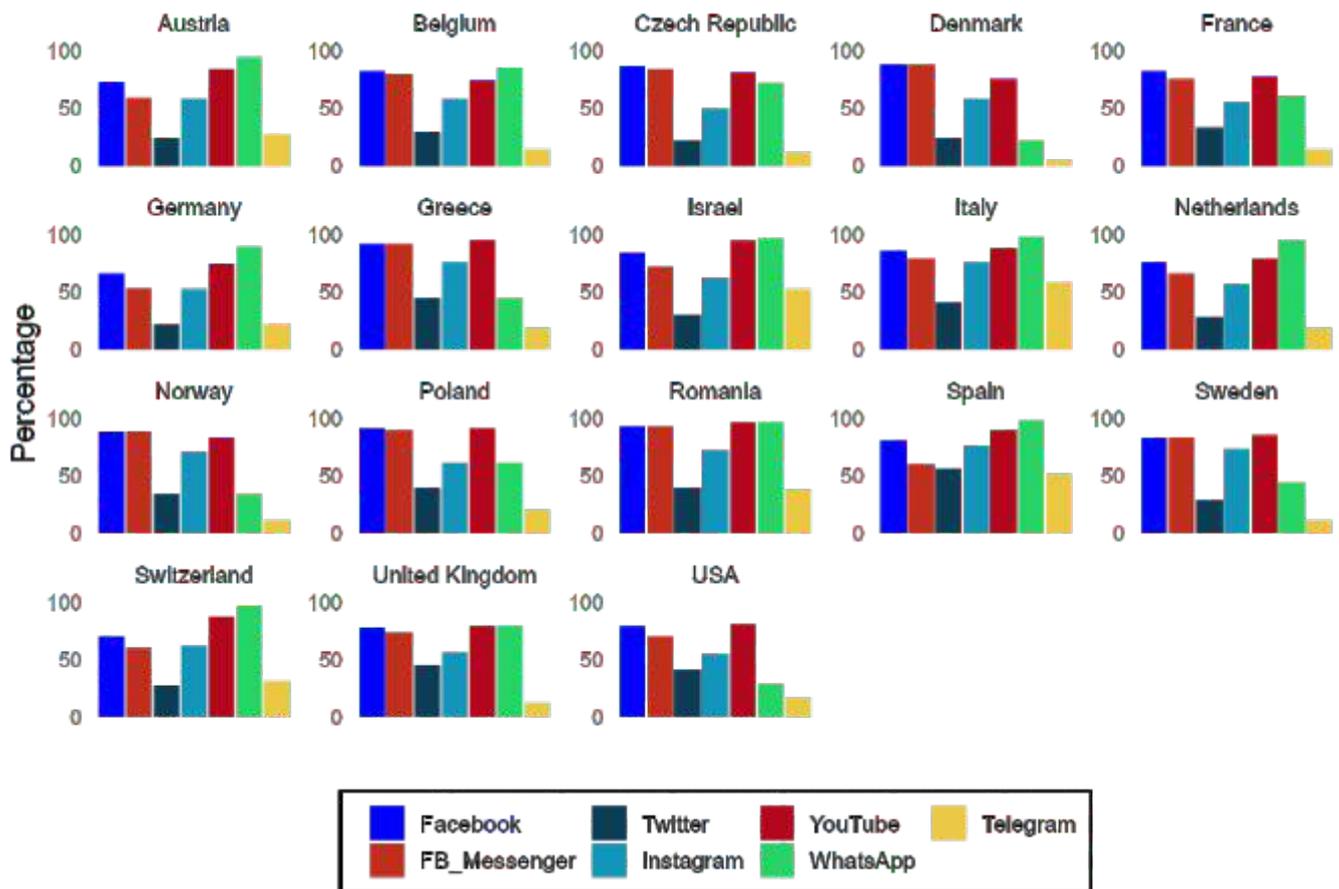
The next section of the report presents the usage of social media platforms and messenger services in the countries under study.

Figure 7 displays the shares of participants who use each social media platform or messaging services at least once a month. While Facebook and Facebook Messenger were among the most used in the vast

majority of countries, and Telegram the least popular service in all countries, there are striking differences between countries. For example, Facebook and Facebook Messenger are less popular in German-speaking countries, while WhatsApp is much more widely used. WhatsApp is, on the other hand, less popular in Nordic countries.

Figure 7

Percentage of users on selected social media platforms and messenger services



Note. Bars present the percentage of the social media platform in each country, indicating respondents who declared using the platform at least once a month.

Turning to Facebook and X (formerly known as Twitter), we find that Facebook users are predominantly female (Figure 8). Facebook users are also younger and more politically interested than non-users in most countries (Figure 9). We find no conclusive difference in ideological leaning between Facebook users and non-users. While in some countries (e.g., Belgium, Greece, or Romania) Facebook users lean more to the right than non-users, the opposite is true in other countries (e.g., the Czech Republic, Israel, or Sweden). Overall,

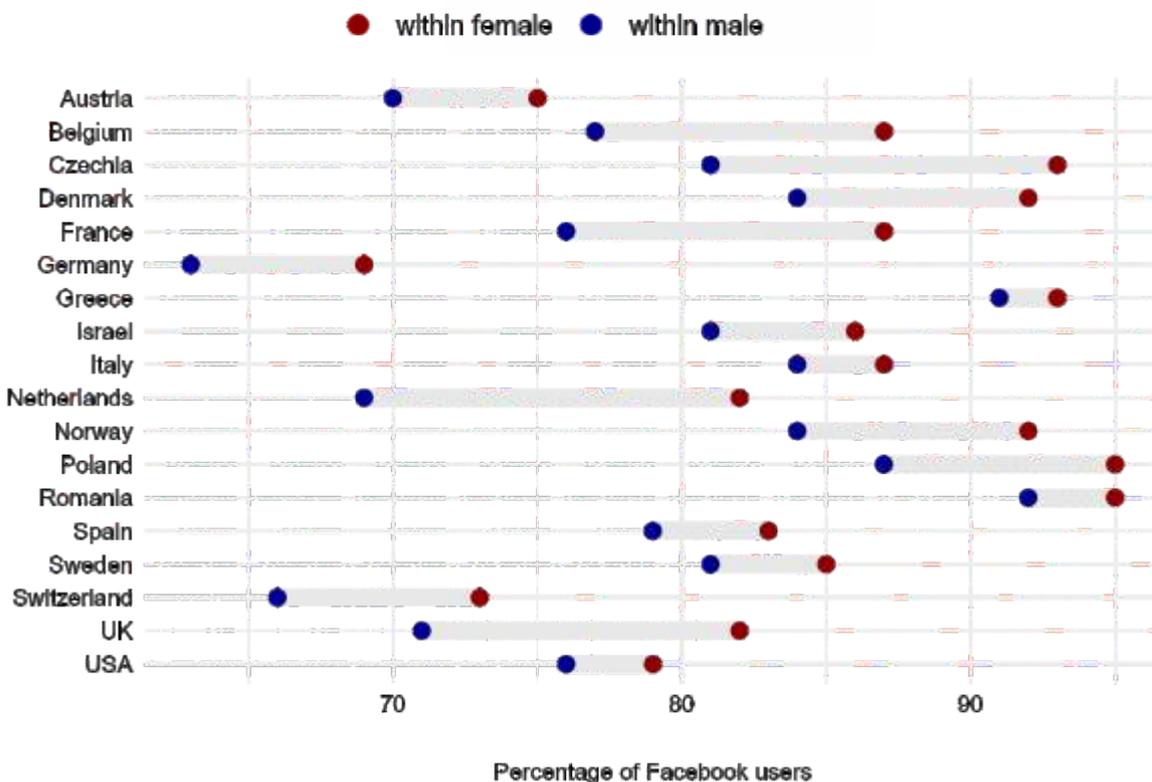
differences in political leaning between Facebook users and non-users are rather small (Figure 9).

We find very similar trends for X users in terms of age and political interest. Again, we find no consistent pattern between the 18 countries in terms of user ideological lean (Figure 10). The most striking difference between Facebook and X has to do with user gender. In contrast to Facebook users, X users are predominantly male (Figure 8).

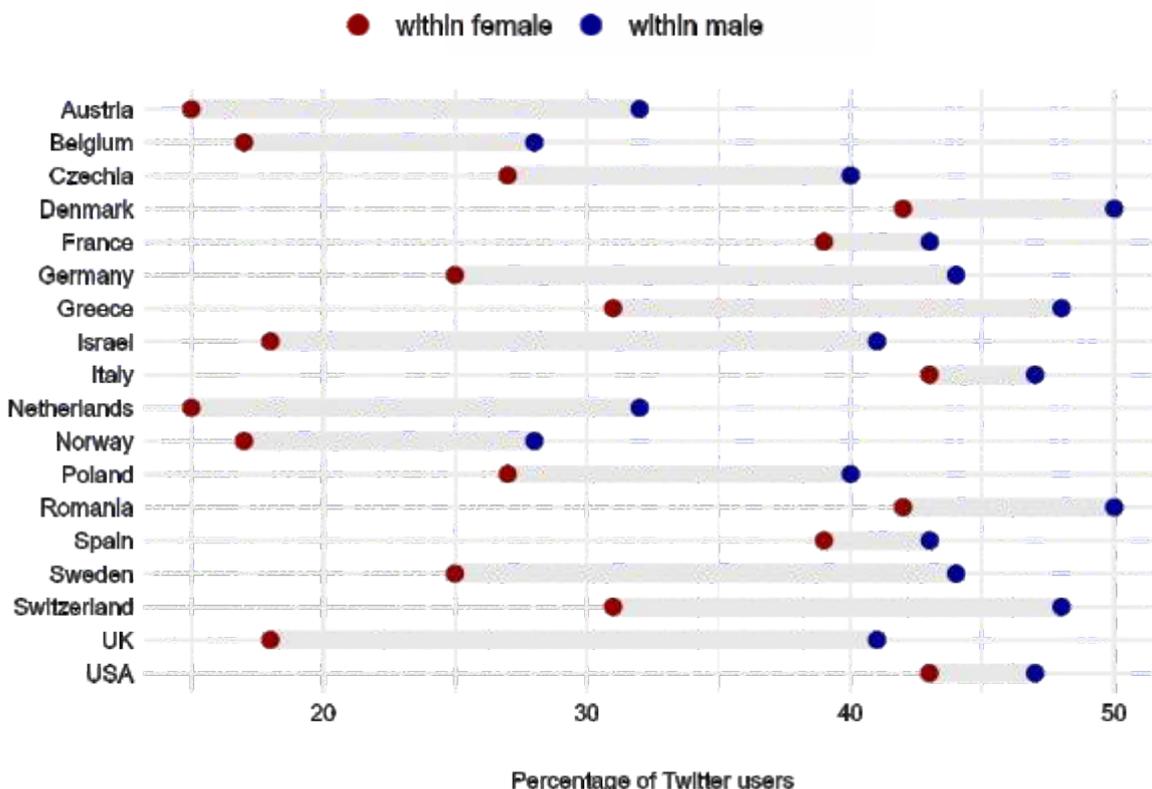
Figure 8

Facebook and Twitter users by Gender per country (%)

FACEBOOK



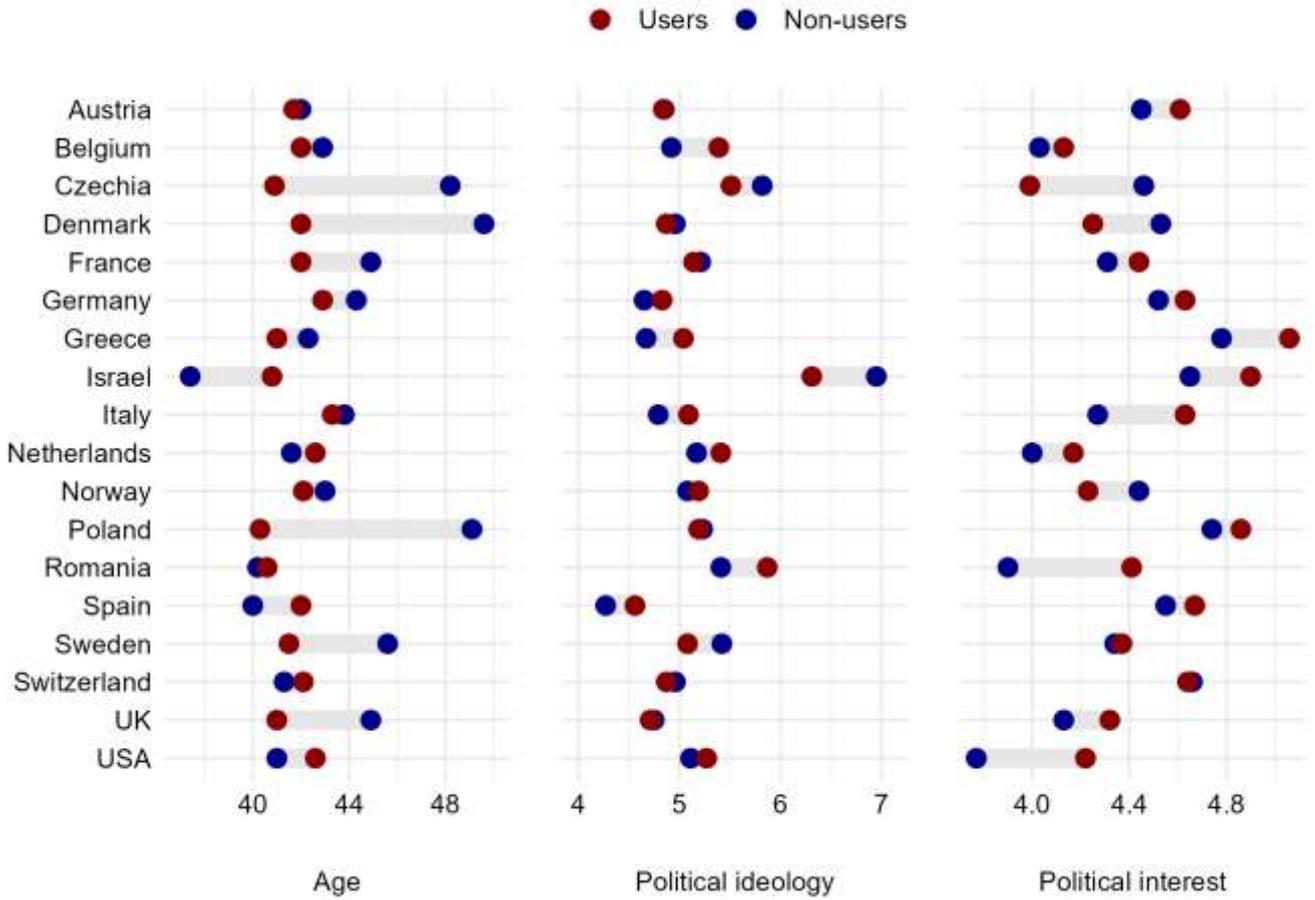
TWITTER/X



Note. Bars present the percentage of the social media platform in each country, indicating respondents who declared using the platform at least once a month.

Figure 9

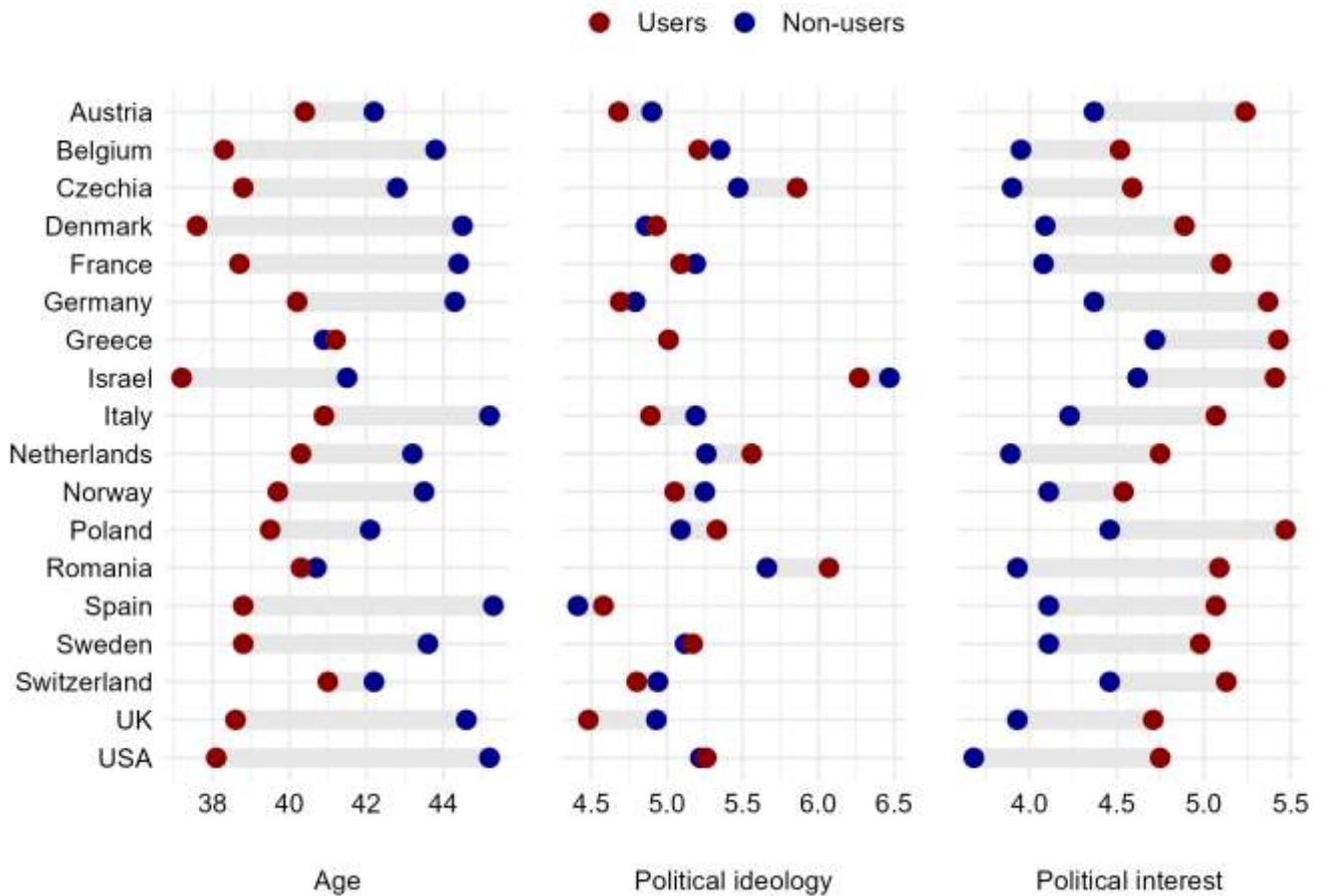
Facebook users and non-users by Age, Political interest, Political ideology per Country (%)



Note. Age was measured in years; political ideology on a 10-point scale (0="left" to 10="right"), political interest on a 7-point scale (1="not interested at all" to 7="very interested"). Please refer to the Appendix for the statistical significance of the differences

Figure 10

Twitter users and non-users by Age, Political interest, Political ideology per Country (%)



Note. Age was measured in years; political ideology on a 10-point scale (0="left" to 10="right"), political interest on a 7-point scale (1="not interested at all" to 7="very interested"). Please refer to the Appendix for the statistical significance of the differences

Tables with similar statistics for Facebook Messenger, YouTube, WhatsApp, Instagram, and Telegram can be found in the Appendix.



Study Two

*Alternative media outlets: communication strategies
on Facebook and Twitter*

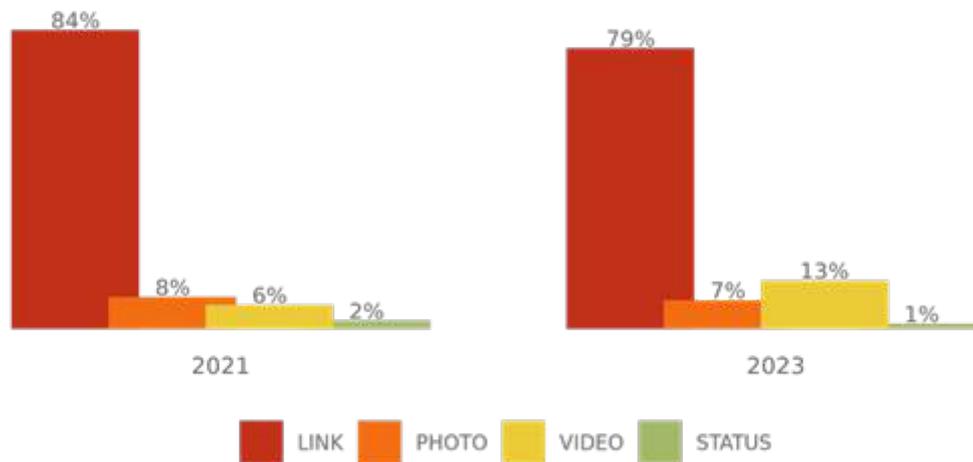
Content Type

In 2021 and 2023, Links to external content represented the majority of posts from alternative media Facebook pages, despite a five-percentage point drop in 2023

(Figure 11). On the other hand, Videos went from 8% of all posts to 13% in 2023. Status posts (containing text only) are rarely employed on Facebook.

Figure 11

Content type share (all countries)



EXAMPLE

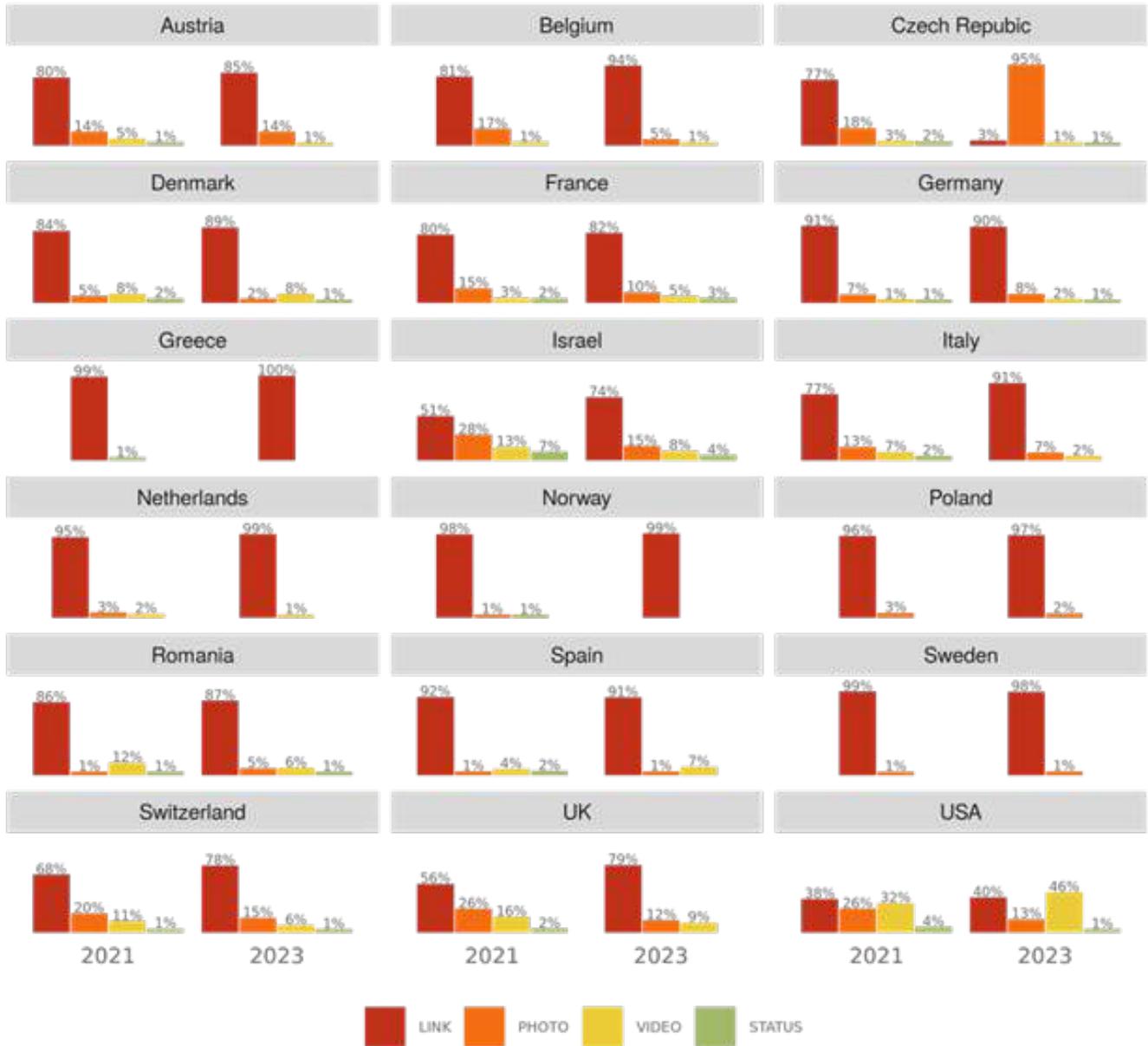
One example of how communication has changed is the UK site Guido Fawkes, which in 2021 only published content in the form of graphics, with links to articles appearing in the text. The communication strategy of this site changed dramatically in just two years, and by 2023, as much as 60% of the content published on the site was links.

Looking at the distribution of content types per country reveals interesting outliers (Figure 12). For example, in Greece, Norway, the Netherlands, Sweden, and Poland, almost all (>95%) content shared by alternative media outlets were Links to outside articles. The only country with more equal distribution of content type is the US, where Links constitute around 40% of all content, which suggests that the rest of the content (Videos 46% or Photos 13%) is specifically created for/by those non-traditional media outlets.

If we consider differences between 2021 and 2023, the Czech Republic stands out for its 74 percentage-point drop in Link-based content which was associated with Photo-based content becoming dominant in 2023. We observe no such radical changes in the type of content shared for any other country, save for the increased popularity of link-based content in Belgium, Israel, Italy, Switzerland, and the UK.

Figure 12

Content types share by country (%)



User Engagement

From our data, it is clear that non-traditional media outlets generated more interest and interactions with their Facebook content in 2021 than in 2023. Not only the total amount of interactions dropped between both years, but the structure of reactions across content types also changed. While Video-based content grew from 6%

to 13% of all posts in 2023 (see Figure 13), mean engagement towards Video-based posts decreased drastically, from 24 to 4 of mean interactions. Lastly, photo-based content drew the most interactions in 2023, as opposed to video in 2021.

Figure 13

Mean RInI by content type

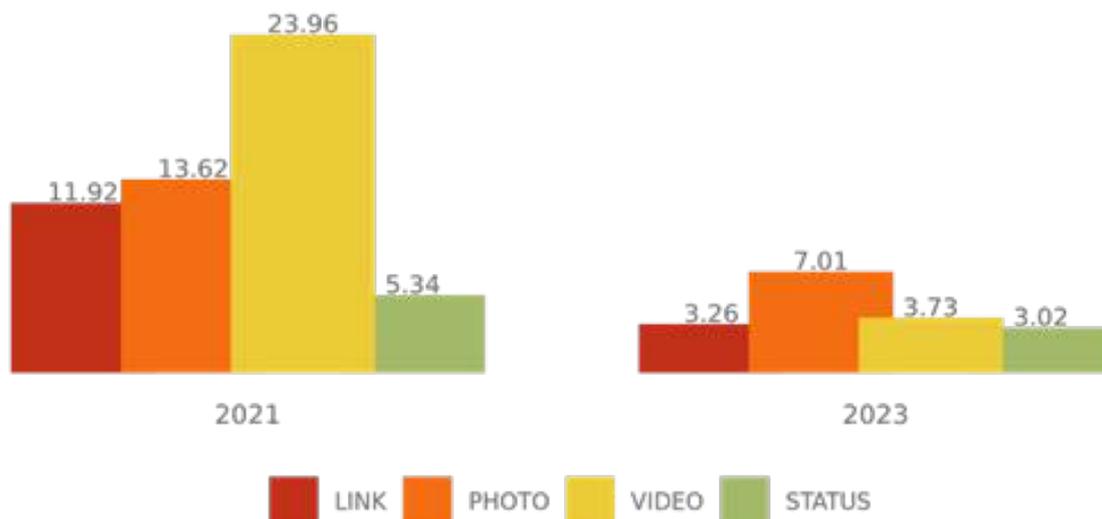


Figure 14

Mean RInI by content type and by country



A similar drop in overall engagement with non-traditional media content is observable in almost all countries and for almost all content types (Figure 14). This decrease is most pronounced for France, Austria

and Romania. We note two exceptions: Belgium, where reactions to Video-based content increased in 2023, and the Czech Republic, where reactions to Video-based content and Text-only content increased substantially).



Source: <http://www.facebook.com/53638966652/posts/10158100775476653>



Source: <http://www.facebook.com/53638966652/posts/10157632065061653>

EXAMPLE

Video-based posts that were responsible for the highest RInI in France in 2021.

In the first post, Idriss Aberkane (controversial French essayist) criticizes what he calls 'evidence-based medicine,' questions the safety of COVID-19 vaccines, and suggests ivermectin and hydroxy-chloroquine are effective treatments against COVID-19 infections. Aberkane also makes unsubstantiated claims that the French state is the primary vector of disinformation and explains that mainstream media use the label "fake news" as a way to delegitimize and censor alternative viewpoints. He concludes that only "the people," not professional media or the elite, should be allowed to determine the facticity of information. The video concludes with Aberkane suggesting that the media have the power to deliberately choose who wins elections.

In the second video, actor Patrick Mille addresses the Minister of Economy Bruno Le Maire, and reads an open letter he wrote to President Emmanuel Macron. In his letter, Mille criticizes the government's lockdown policy by putting himself in the shoes of a financially struggling student, a restaurant owner, a domestic violence survivor stuck at home with her abuser, and others. The letter calls for reopening and concludes with a scathing criticism of the government's COVID-19 policy, denounces the lack of resources in hospitals, and the sacrifice of young people's freedoms to protect the elderly.

Communication style

Another important aspect of Facebook communication is the format of the content that gets published. In this

section, we examine how different aspects related to text-based posts changed between 2021 and 2023.

POST LENGTH

The vast majority of the content published is short (up to 499 characters), and their share increased between 2021

and 2023. Simultaneously, we note a significant drop in content posted without any commentary (Figure 15).

Figure 15

Distribution of content by Post length

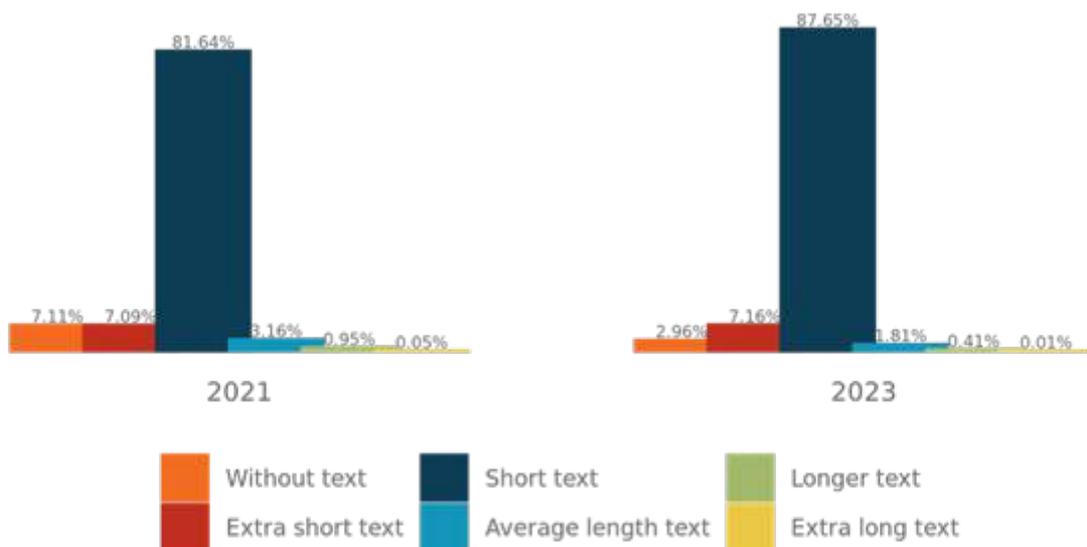
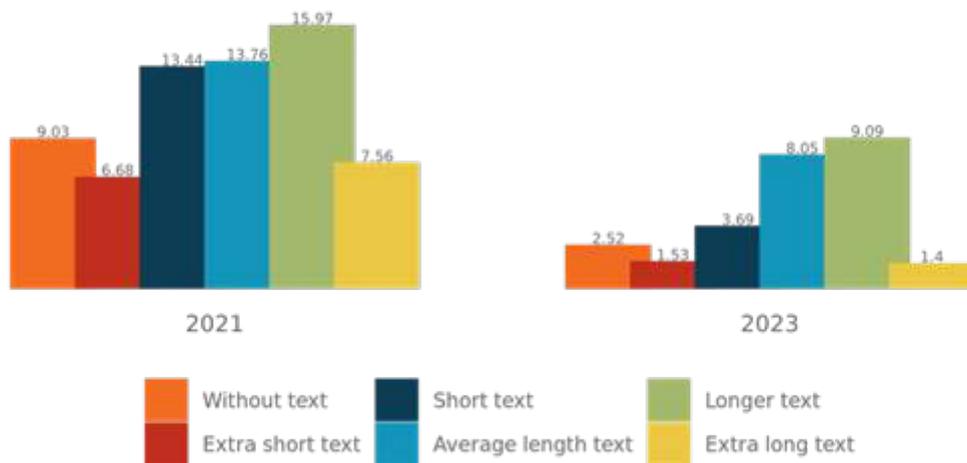


Figure 16

Mean RInI by post length

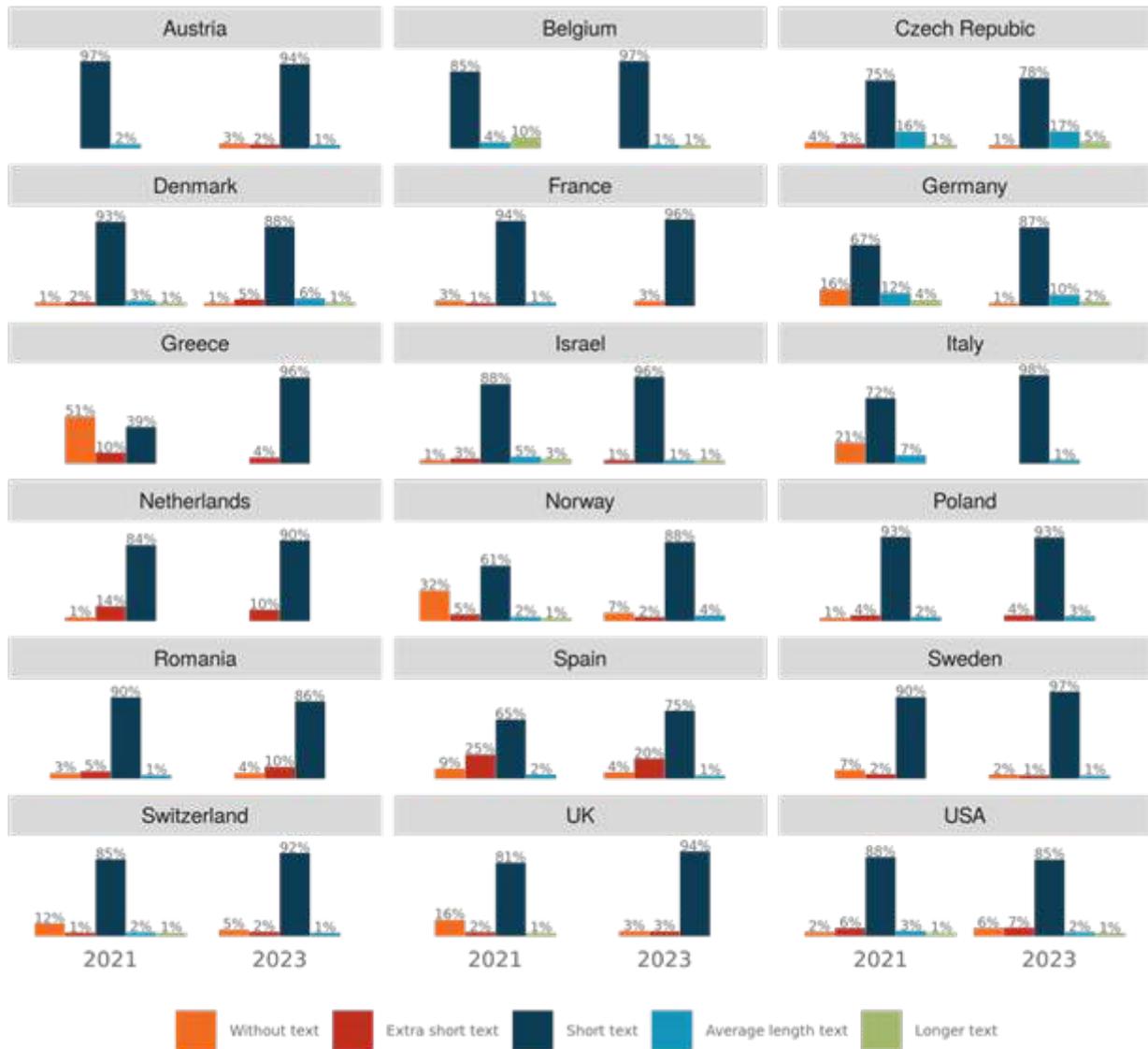


Focusing on engagement, we observe a sharp decline in interactions with content from alternative media between 2021 and 2023 (Figure 16). The most drastic decrease in interactions concerns posts consisting of short text—by almost 10 percentage points. This may be

reflective of a saturation with this type of content. Interestingly, the highest average engagement in both 2021 and 2023 was recorded for content between 1,000 and 5,000 characters, suggesting a real appetite for more substantive content, as opposed to graffiti-like posts.

Figure 17

Distribution of content by Post length per Country



The results of the distribution of text length by country show an interesting configuration of the posts within countries (Figure 17). In some countries, there is no employment (or it completely disappeared in 2023) of longer, more elaborated texts (for example, in France, Greece, Netherlands, Romania, and the UK). On the contrary in some countries, longer posts remain a mode

of communication (for example in the Czech Republic, Denmark, and Germany). The most significant change occurred in Greece, where, in 2021, posts were mostly without text or only with extra short text (61% were mostly links), whereas in 2023 as much as 96% of published content had a short description.

Figure 18

Mean RInI by post length and by country



Looking at mean engagement broken down by post length and by country, we observe that long-text posts proportionally garnered the greatest amount of interactions compared to other posts in Denmark and Belgium (for both years), in Spain and Switzerland (for 2021), and in Romania and Israel (for 2023) (Figure 18). In general, posts consisting of short messages also

generated fewer interactions in 2023 than in 2021, except for Italy and Switzerland. Lastly, publications without textual content generated the highest engagement in Norway and Sweden for the year 2021, though this was not the case by 2023 anymore. This suggests that pages seeking higher engagement need to bet on richer content.



Source: <http://www.facebook.com/1378045312483970/posts/2961229564165529>

Of the posts considered, one stands out for receiving unprecedentedly high RInI, for a post with both long text and long video.

EXAMPLE

Example: In 2021, in Switzerland, one post (with more than 1,000 characters gained high engagement) accompanied by a longer ('14) video received a high engagement. The post by ExpressZeitung offers a so-called alternative guide for finding data on deaths allegedly linked to COVID-19 vaccinations. The video misconstrues an EU public database of adverse reactions and side effects and claims that thousands of vaccine-related deaths are being covered up by mainstream news. The infographics shown in the video regularly include captions saying "information not guaranteed" and "follow the facts on Telegram."

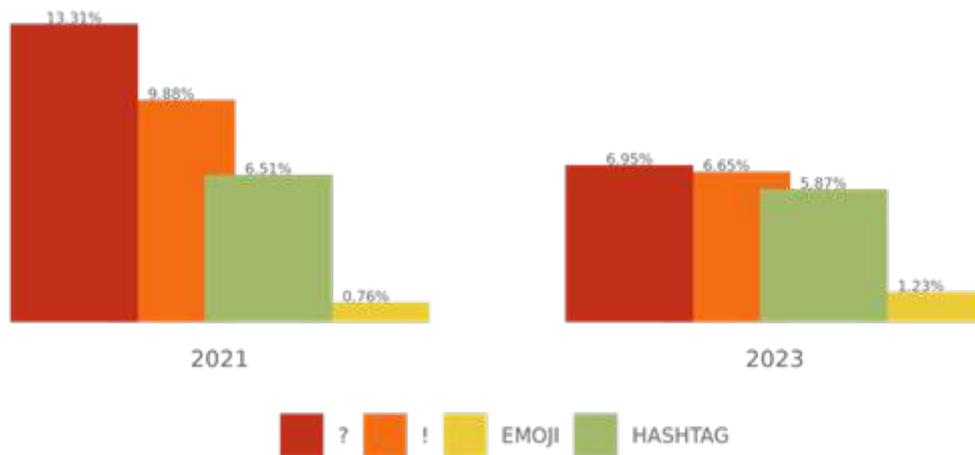
EMPLOYMENT OF SIGNS

The use of signs, emojis, and special characters provides further insights into how alternative media utilize social media to disseminate messages. In this section, we examine the prevalence of signs, emojis, and special characters in Facebook posts, and how their use influences user engagement.

In 2021, more than one-third of the content published on the Facebook pages of alternative media contained special characters with rhetorical question marks being used the most frequently (Figure 19). By 2023, their use had receded to about one-fifth of all the content. Emojis are the only type of special character that saw an increase in use from 2021 to 2023.

Figure 19

Employment of signs



Engagement around posts containing special characters was especially high in 2021—the RInI for posts containing question marks was higher than for any other category except for posts containing videos (Figure 20).

However, while in 2021 question marks attracted the most attention from Facebook users, exclamation marks did in 2023 by a small margin.

Figure 20

Mean RInI by Posts containing signs



Figure 21

Mean RInI by Posts containing signs per Country



Examining country variations between both years reveals three tendencies: low or no change (Belgium, France, Greece, Poland, Spain, and the USA), medium change for all signs (Switzerland, Germany, Italy, Netherlands, Norway, Sweden), or a drastic change for all

or some of the signs (Austria, Czech Republic, Denmark, Romania, and the UK) (Figure 21). The most change concerns the use of emojis in Czech alternative media. Posts that contain emojis had a mean RInI score of 83 in 2021. That score fell to only 16 by 2023.

Content analysis

In 2021, the most recurring words in the Twitter and Facebook posts of alternative media revolved around three clusters: political actors and institutions (e.g., minister, government, president, court), the COVID-19 pandemic (e.g., vaccinations, corona, covid, vaccine), and law and order (e.g., law, police, attack, border). In 2023, attention expectedly but overwhelmingly turned to the war in Ukraine (e.g., Ukraine, war, Russian, Russia, Poland). References to institutions and law and order remain significant in 2023, with the addition of

references to electoral contests (e.g., election, change, support, Biden). This likely reflects elections that were held in the Czech Republic in January and Poland in October, and the start of the Republican primaries in the US. Furthermore, the war in Ukraine may have prompted additional conversations around the 2024 US elections, and what a potential return of a Trump administration could mean for the resolution of the Russia/Ukraine conflict.

Figure 22

Facebook: Top 20 words in 2021 and 2023 (number of occurrences)

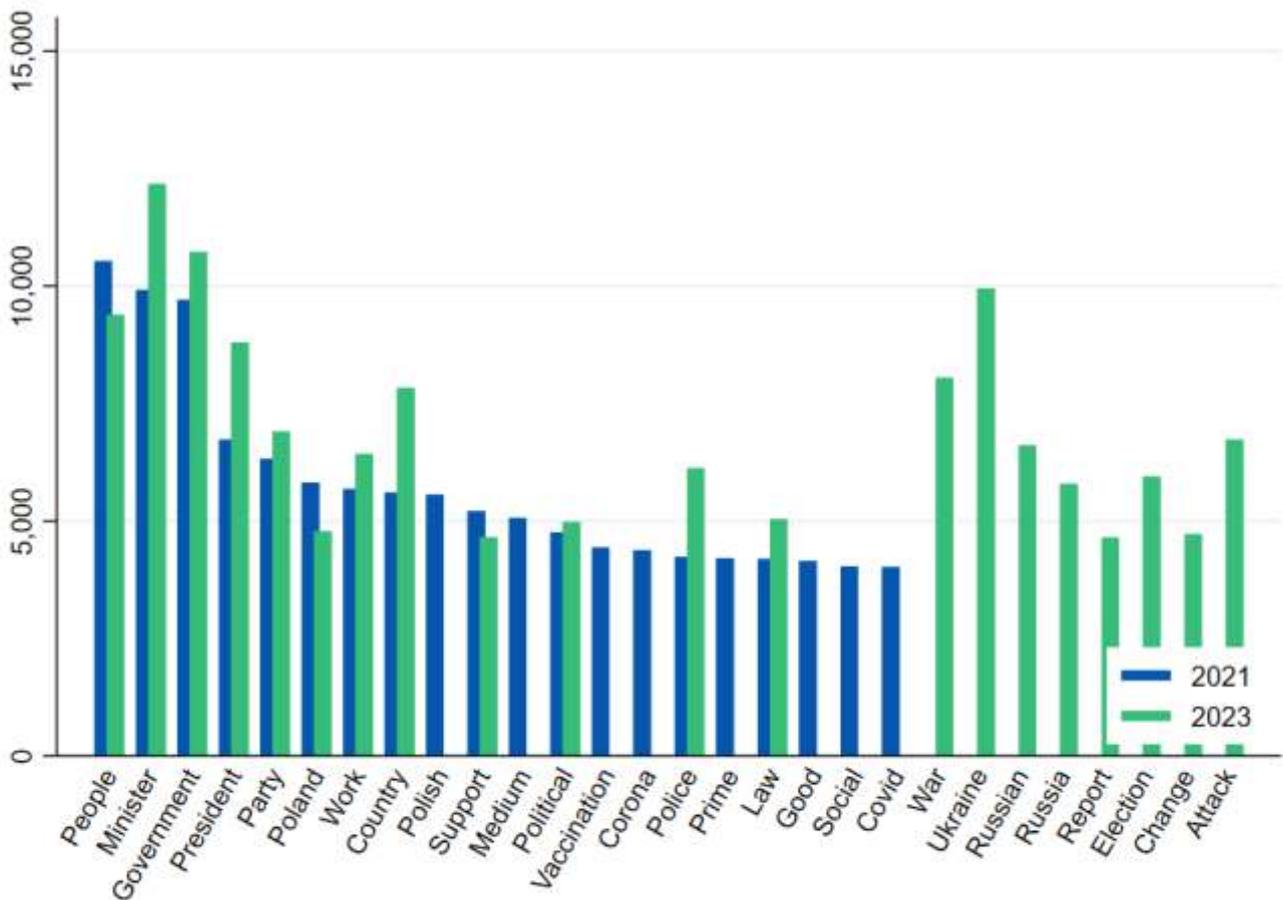
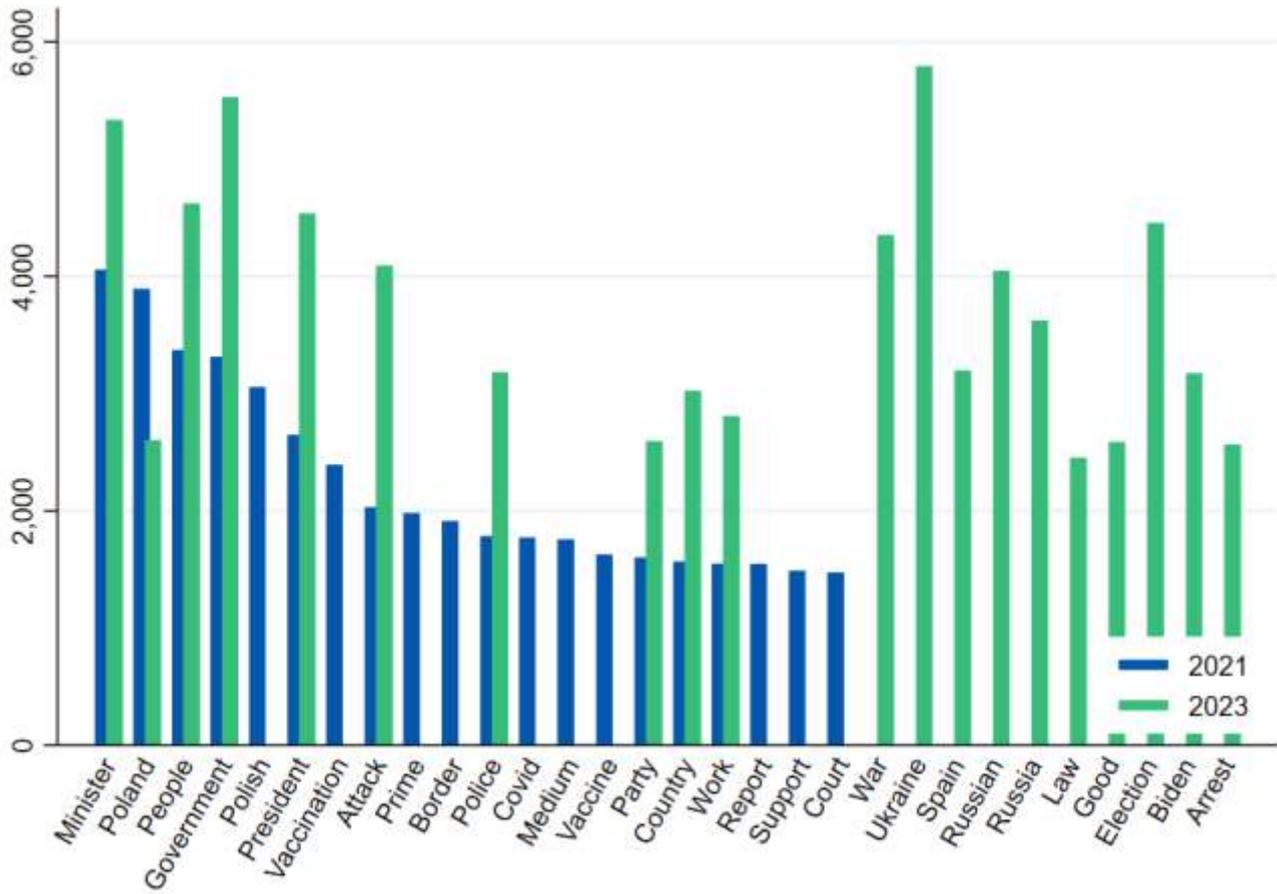


Figure 23

Twitter: Top 20 words used in 2021 and 2023 (number of occurrences)



Conversations on Twitter did not differ substantially from those on Facebook. One difference concerns the word 'border,' which received significant attention on Twitter but is not within the top 20 words used on Facebook in 2021. References to the word "border" may be related to a border conflict involving Poland and

Belarus, which started during the summer of 2021. Alternatively, it may be associated with increased stress at the southern US border. Interestingly, the word Biden only appears within the top 20 words used on Twitter, but not on Facebook, and "elections" ranks higher in the list, too.

Alternative visualization

FACEBOOK

2021	2023
People	Minister
Minister	Government
Government	Ukraine
President	People
Party	President
Poland	War
Work	Country
Country	Party
Support	Attack
Medium	Russian
Political	Work
Vaccination	Police
Corona	Election
Police	Russia
Prime	Law
Law	Political
Good	Poland
Social	Change
Covid	Support
Attack	Report
Change	Covid
Report	Medium
War	Polish
Russia	Vaccination
Ukraine	Prime
Russian	Social
Election	Corona
	Good

TWITTER/X

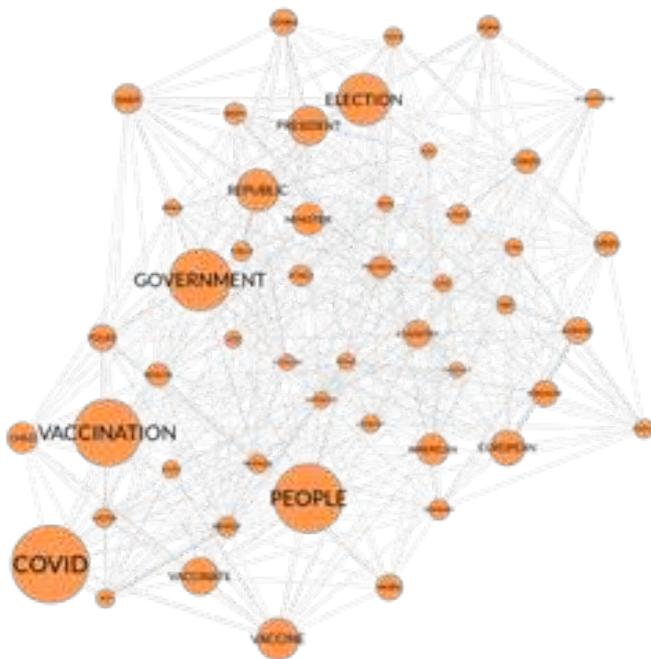
2021	2023
Minister	Ukraine
Poland	Government
People	Minister
Government	People
Polish	President
President	Election
Vaccination	War
Attack	Attack
Prime	Russian
Border	Russia
Police	Spain
Covid	Police
Medium	Biden
Vaccine	Country
Party	Work
Country	Poland
Work	Party
Report	Good
Support	Arrest
Court	Law
Election	Border
Biden	Court
Law	Medium
Russian	Polish
War	Support
Spain	Report
Ukraine	Vaccine
Russia	Vaccination
Arrest	Covid
Good	Prime



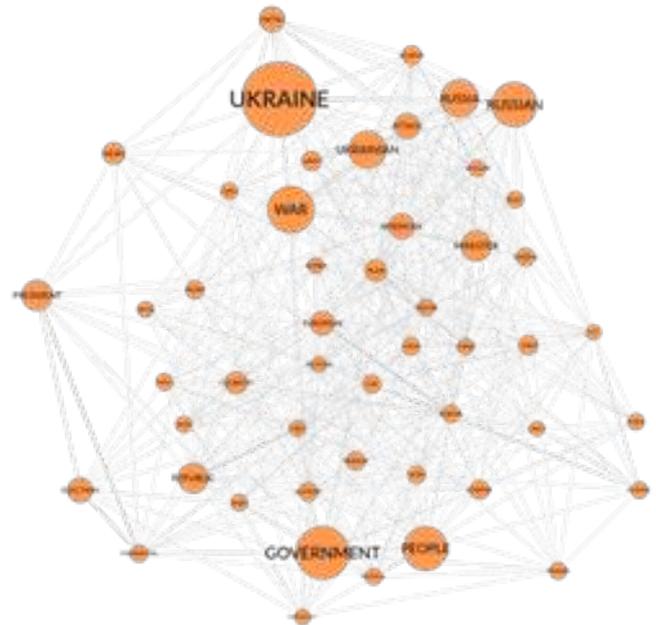
Content analysis by country

Czech Republic

2021



2023

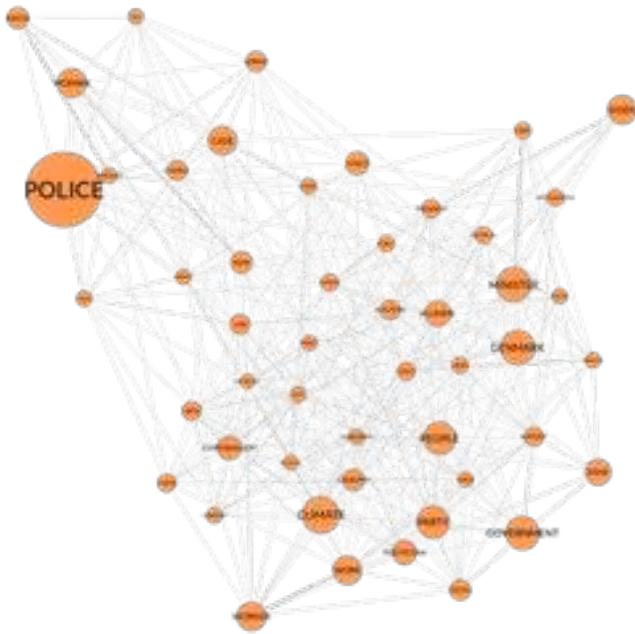


In 2021, the agenda of Czech alternative media was primarily driven by the ongoing Covid-19 pandemic, and the government's vaccination program, which was vehemently opposed by right-wing disinformation websites, especially about the vaccination of children. The October 2021 general election, which led to a

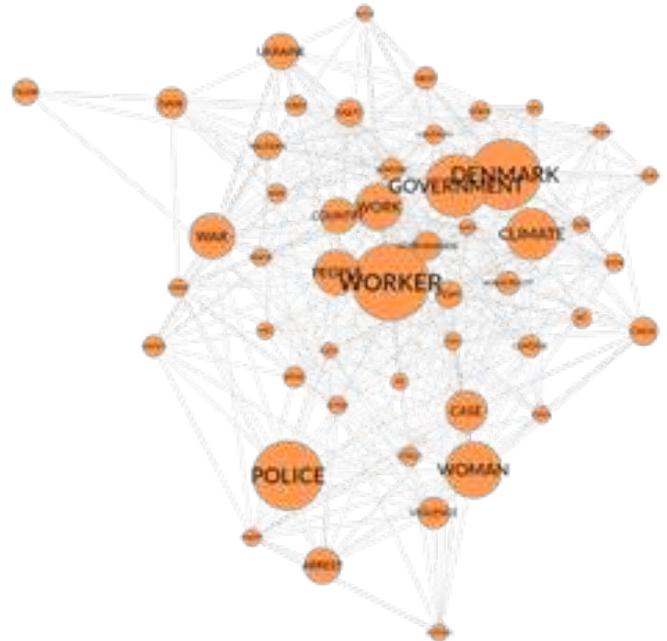
change of majority, also gathered substantial attention. By 2023, the Ukraine-Russia war was the primary driver of alternative media content, with right-wing disinformation outlets adopting a pro-Russian stance, unlike Denik Referendum or Alarm, which were supportive of Ukraine.

Denmark

2021



2023



Denmark's alternative media agenda in 2021 featured crime and law enforcement (e.g., police, arrest, prison, charge, court), climate change (e.g., climate, Copenhagen, agreement), as well as general references to political institutions (e.g., government, prime, minister, party). These topics all persisted throughout

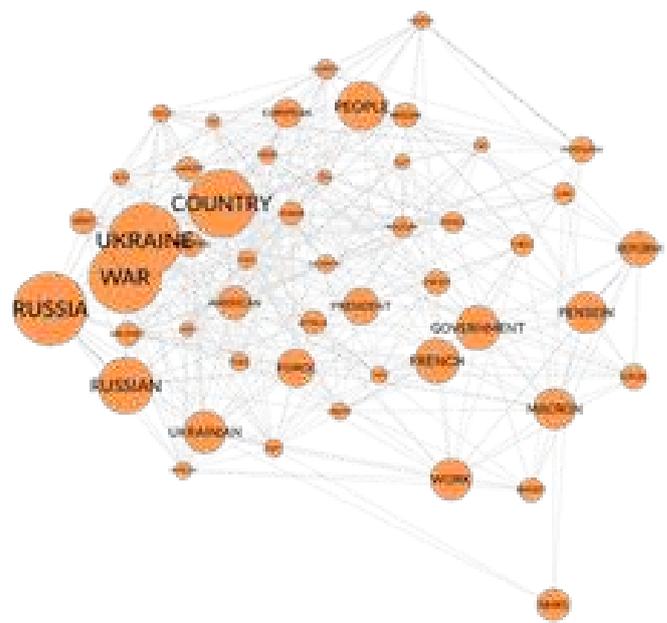
2023, with the addition of the Ukraine-Russia war (e.g., war, Ukraine, military, defense, united). What appears from the data is that the vocabulary used to describe these topics was far more fragmented in 2021 than in 2023.

France

2021



2023



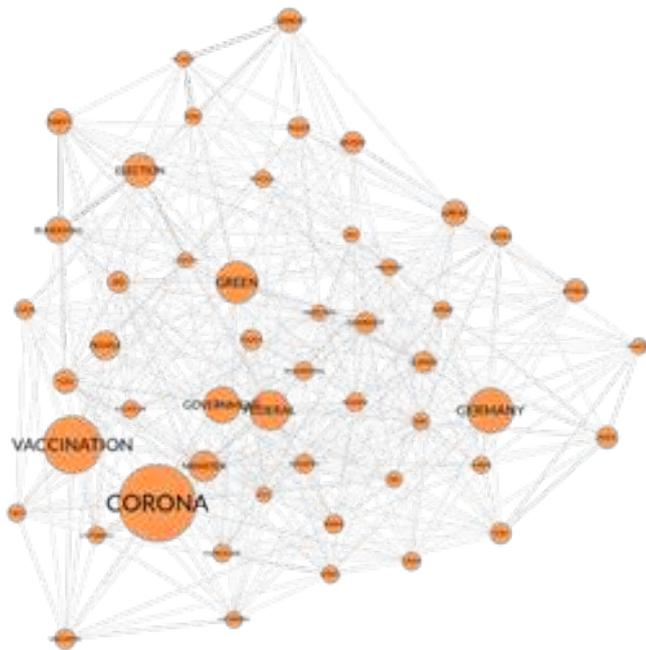
In 2021, the focal point of attention was “health,” with significant emphasis on “vaccine,” “COVID,” and “doctor.” This is indicative of the global health crisis during that period. Terms like “vaccination,” “law,” and “pass,” suggest an important focus on health policy and regulations—in particular the government’s establishing of a vaccine pass for access to various public venues. There are also references to “French,” “government,” and “Macron,” indicating discussions surrounding the actions of the French president and government in response to the pandemic.

By contrast, the 2023 network map prominently features

two topic clusters. One gravitates around “Russia,” “Ukraine,” and “War,” suggesting a high and sustained focus on the geopolitical tensions related to the Russian invasion of Ukraine in 2022. The terms “operation” and “West” are featured in that topic cluster. This is significant as Russian propaganda attempted to reframe the invasion of Ukraine as a mere “military operation,” and to frame “the West” as the enemy. The other notable cluster gravitates around “government,” “reform,” “pension,” and “work,” which reflects the tensions and controversies around the French government’s passing of its retirement pension reform.

Germany

2021



2023

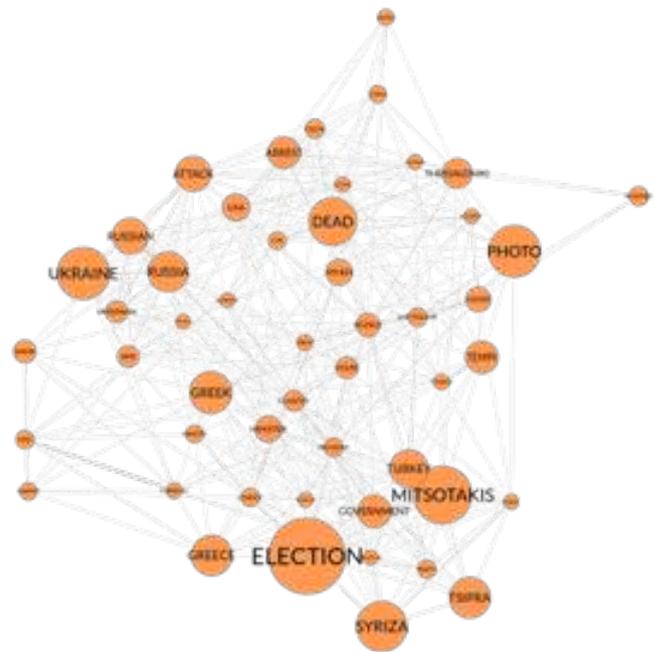


In 2021, the central and largest node was “corona,” closely followed by “vaccination.” This suggests the dominant topic of discussion was the COVID-19 pandemic. Associated closely with this cluster were references to “government,” “federal” and “minister,” suggesting significant discussions around vaccination campaigns, government responses, and public health discourse. Another important topic cluster revolves around words like “election,” “green,” “SPD” (Social Democratic Party of Germany) “CDU” (Christian Democratic Union), and “Bundestag,” likely relating to the federal elections that took place in 2021.

In 2023, a new cluster appears related to the Russian invasion of Ukraine and energy. Another important topic is climate change and the government's related policies. In addition to being anti-government, there is a tendency in both years to make a bogeyman out of the Green Party in Germany in discussions about climate change policies. Interestingly, the phrase “China Welt News” pops up in the network graph for 2023, apparently connected to terms like “energy,” “economic,” and “attack.”

Greece¹

2023



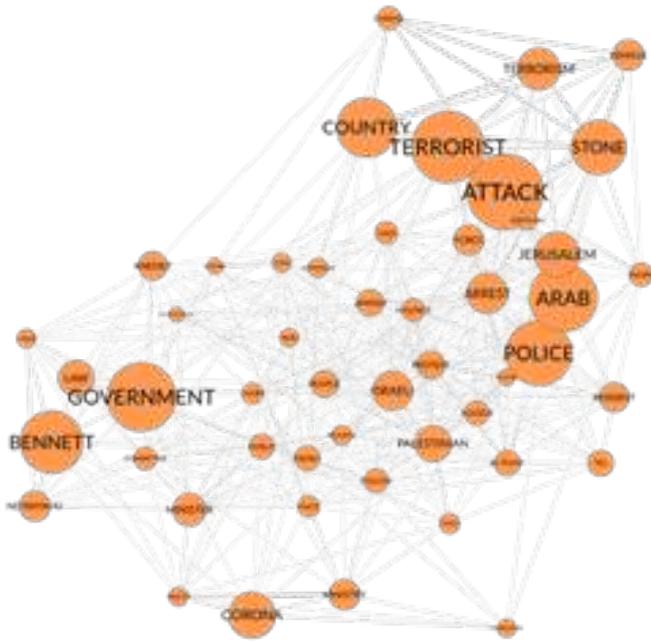
The primary cluster revolves around nodes representing references to the June 2023 parliamentary elections (e.g., election, Syriza, Mitsotakis, Tsipra, house). Another focal point is related to a train crash in the Tempe valley (e.g., Tempi, Thessaloniki, dead, tragedy). The accident cost the lives of 57 passengers. The deadliest accident involving a passenger train in Greek history, the incident exposed long-standing issues in the country's railway infrastructure. The crash triggered strong protests, vigils, and clashes with police forces, along with furious reactions from the public regarding the state of public

infrastructure in the country and the state's dismissal of warnings from railway labor unions regarding safety issues. The issue reverberated throughout the year and is said to have affected the approval ratings of New Democracy, the governing party, in the 2023 legislative election. The war in Ukraine forms another cluster (e.g., Russian, Russia, Ukraine, Ukrainian, attack, war), along with economic issues (e.g., bank, Euro, European, market) and relations with Turkey, exacerbated by the magnitude 7.8 earthquake that hit Turkey and Syria on February 6.

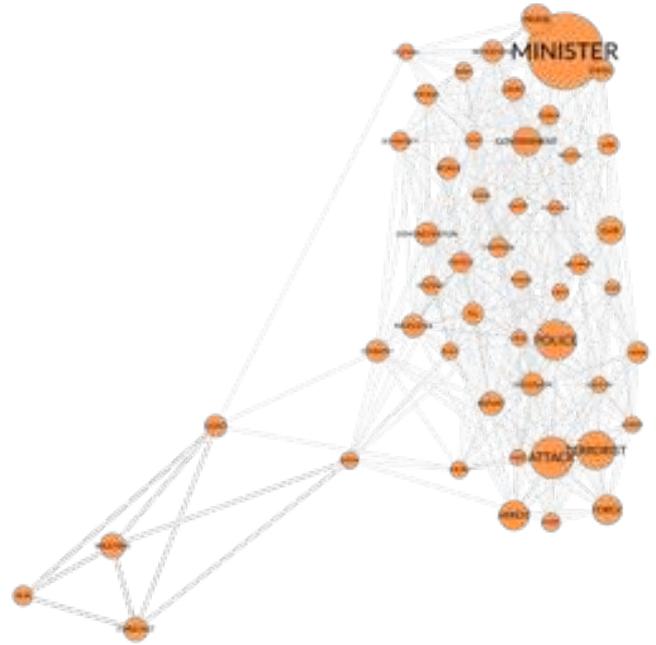
¹ The graph from 2021 for Greece is missing due to technical issues with the 2021 data.

Israel

2021



2023



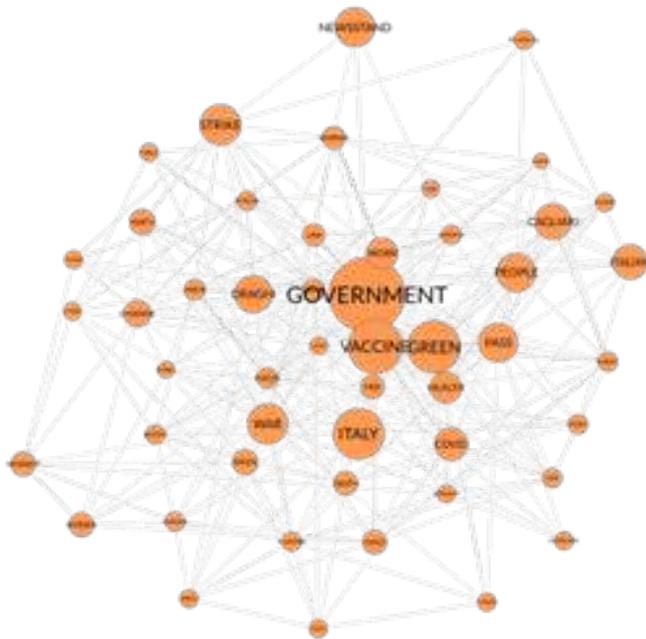
The 2021 agenda of Israeli alternative media unsurprisingly reflects the broad range of security threats that have continuously faced the country, including terrorist attacks from the West Bank, missile strikes from the Gaza Strip, and internal riots among the Israeli-Arab population (e.g., terrorist, attack, terrorism, vehicle, damage, protest, Palestinian, Gaza, violence). Two more clusters stand out. The first is related to the COVID-19 pandemic (e.g., corona, health, ministry, condition). The second is related to the 2021 Israeli legislative elections, which were held after the Knesset, Israel's house of representatives, failed to pass the 2020 state budget, prompting the dissolution of Benjamin Netanyahu's government and the establishment of a rotation government led by Naftali Bennett (e.g.,

government, Bennett, Netanyahu, Likud, minister, Knesset).

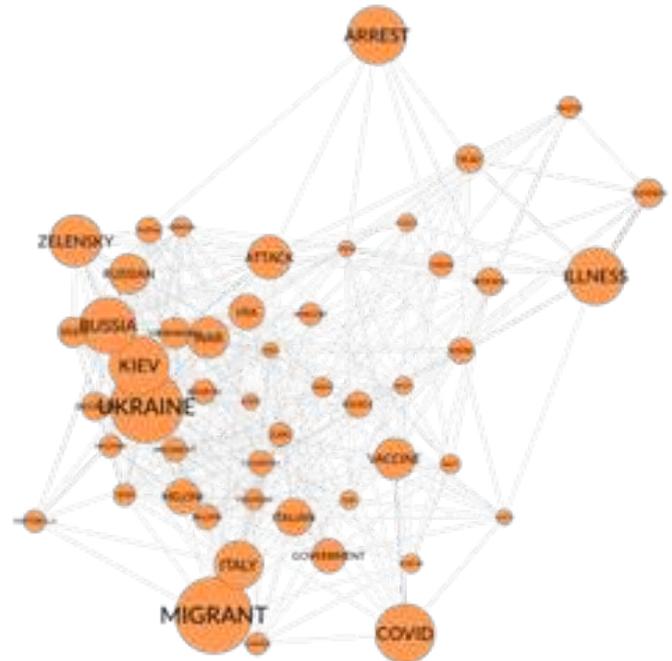
The 2022 return of Benjamin Netanyahu as Israel's prime minister is reflected in our 2023 data. References to Naftali Bennett have completely disappeared. Along with the expected references to the Israeli-Palestinian conflict, and the terrorist attacks that occurred in late 2023, our data shows a significant amount of references to Netanyahu's efforts to overhaul the national judicial system. This initiative heightened polarization and political tensions, sparking widespread civil demonstrations throughout the country and escalating conflicts between protesters and law enforcement.

Netherlands

2021



2023

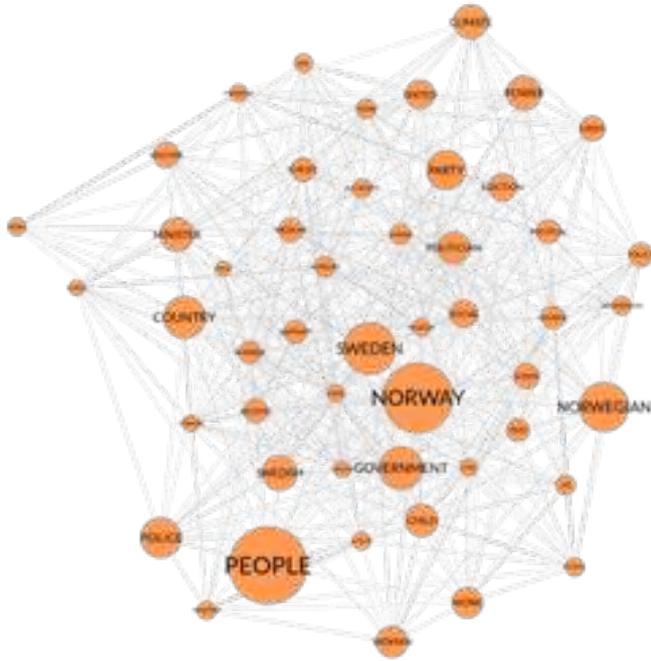


“Cabinet” was the central node in 2021. This node is closely associated with references to prominent political figures: “Wilder,” likely referring to right-wing populist Geert Wilders; “Rutte,” referring to Prime Minister Mark Rutte; “Jonge,” referring to Hugo de Jonge, housing minister and short-lived leader of the Christian Democratic Appeal party; and “Baudet,” referring to Thierry Baudet, far-right leader and self-declared conspiracy theorist. The COVID-19 pandemic received substantial attention as well, with a strong focus on the Netherlands’ policy and related policies (e.g., lockdown, corona, policy, health, vaccination, care, Christmas).

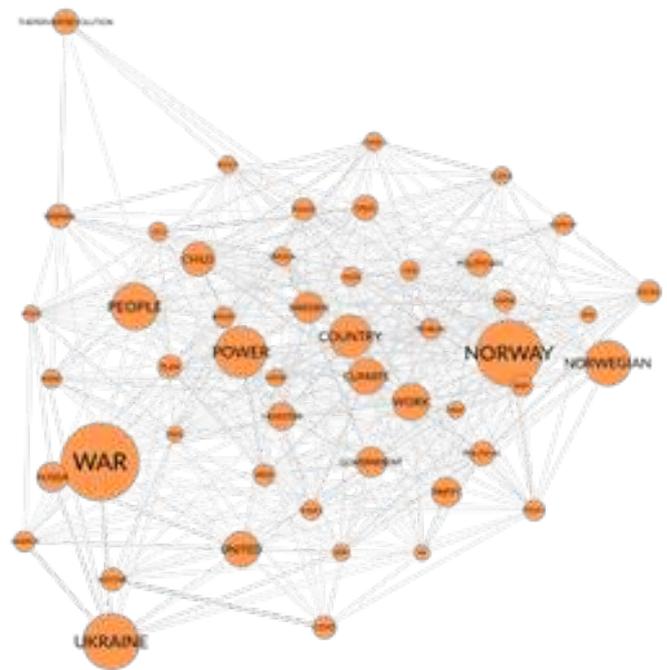
The 2023 legislative elections, which saw Geert Wilder’s PVV party come in first place, garnered significant attention as well (e.g., election, government, Rutte, cabinet, prime, minister, Wilder). Interestingly, “Wilder” received less attention than “Rutte” or “Baudet,” partly reflecting how unexpected the PVV’s strong showing was. Another prominent topic in the agenda of Dutch alternative media was the unprecedented farmer protests around nitrogen regulation, following the government’s decision to curtail emissions of nitrogen, on which large segments of Dutch agriculture rely (e.g., nitrogen, farmer, crisis). These protests were largely exploited by the Dutch far right.

Norway

2021



2023



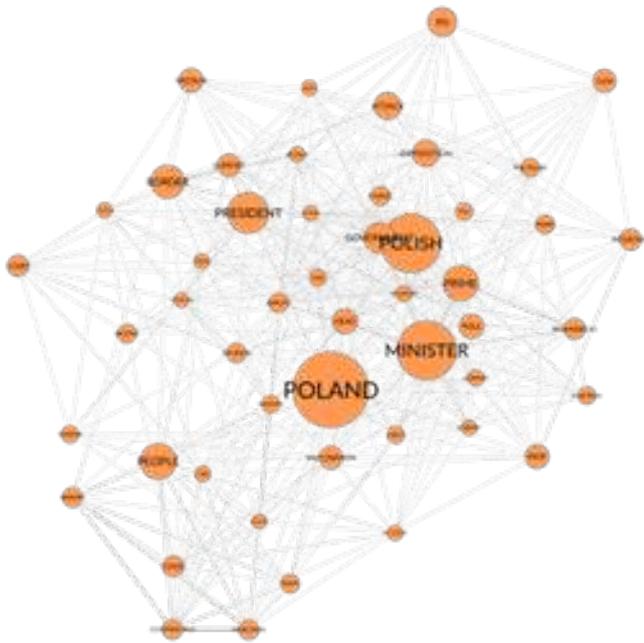
In 2021, the agenda of Norwegian alternative media included references to the September parliamentary election, which put an end to eight years of center-right rule. Several keywords make references to immigration (e.g., immigration, migrant, border, crisis). Additionally, the global pandemic gathered substantial attention, with references to vaccines, but also comparisons to Norway's neighboring country, which adopted much fewer restrictions during the pandemic (e.g., vaccine,

Swedish, Sweden, Norway, crisis).

Like in most countries, 2023 was marked by the war in Ukraine, with "war" being the largest node. We also observe significant attention to the phrase "thepervertrevolution," connected to the words "woman" and "society." This may refer to backlash against gender inclusivity and social change.

Poland

2021



2023



Our findings for 2021 show a prevalence of domestic news and a clear tendency towards the domestication of foreign affairs in 2023. Polish alternative media were mostly focused on domestic politics (e.g., ministry, decision, talk, change), and relations between the government and opposition (e.g., government, prime, minister, PIS, Tusk, Sejm, opposition).

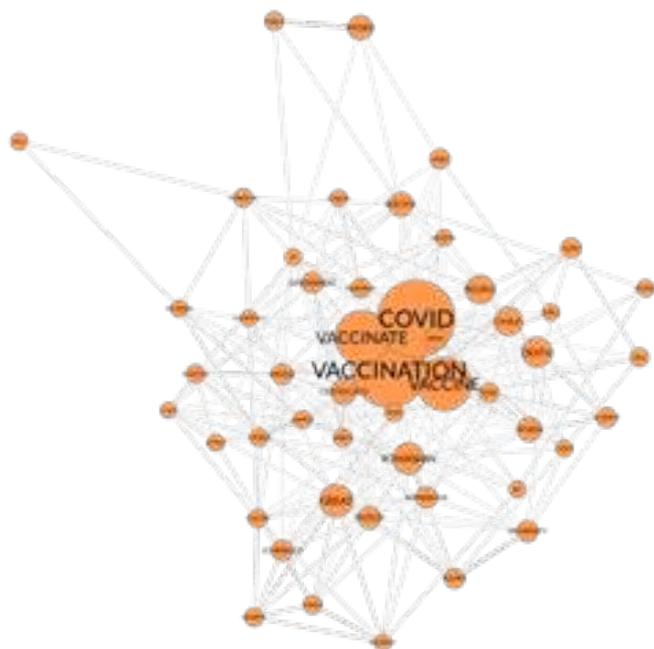
Two other major topics attracted the attention of alternative media in 2021: the refugee crisis at the Polish-Belarusian border, and the state of emergency that was

subsequently declared (e.g., border, Belarus), and the COVID-19 pandemic (e.g., COVID, coronavirus, infection, health, vaccination, vaccinate).

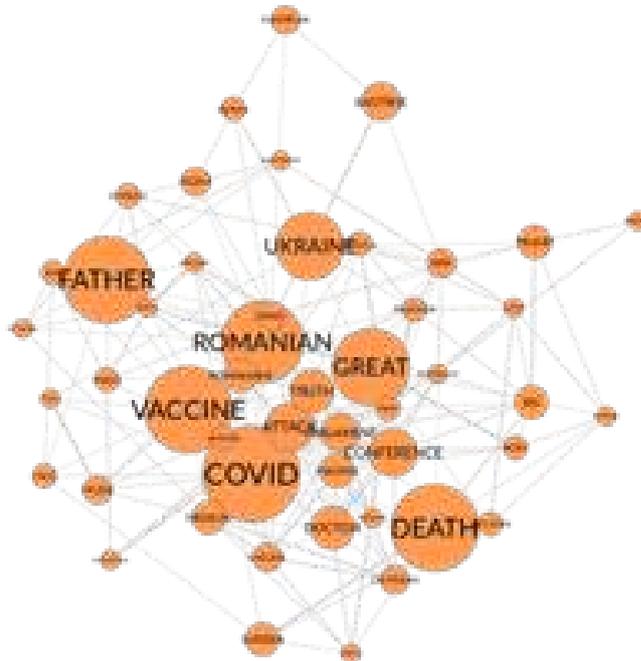
The war in Ukraine became a prominent driver of the alternative agenda in 2023 (e.g., Russian, Russia, war, Ukraine, Ukrainian, Putin). That being said, much of the agenda still revolved around domestic politics (e.g., Tusk, donaldtusk, PIS, Kaczyński, opposition, president, prime, minister, Morawiecki).

Romania

2021



2023



The 2021 agenda of Romanian alternative media clusters very strongly around COVID-19, reflecting an overwhelming preoccupation with the pandemic and skepticism surrounding vaccine mandates (e.g., COVID, vaccinate, vaccine, vaccination, certificate, passport, impose, conspiracy, death, doctor, hospital). If, at the beginning of the year, vaccination seemed to be reserved for the “happy few” who qualified to get the jab, arousing envy among the general population, by the end of the year, Romania became one of the most vaccine-hesitant countries in Europe, partly due to many conspiracy theories about vaccination circulating in non-mainstream and social media. Specific political figures are named in the network map, alongside references to the pandemic. The most visible are the

incumbent president, Klaus Iohannis, the government, and one of the staunchest promoters of anti-vax conspiracy theories in Romania, lawyer Gheorghe Piperea.

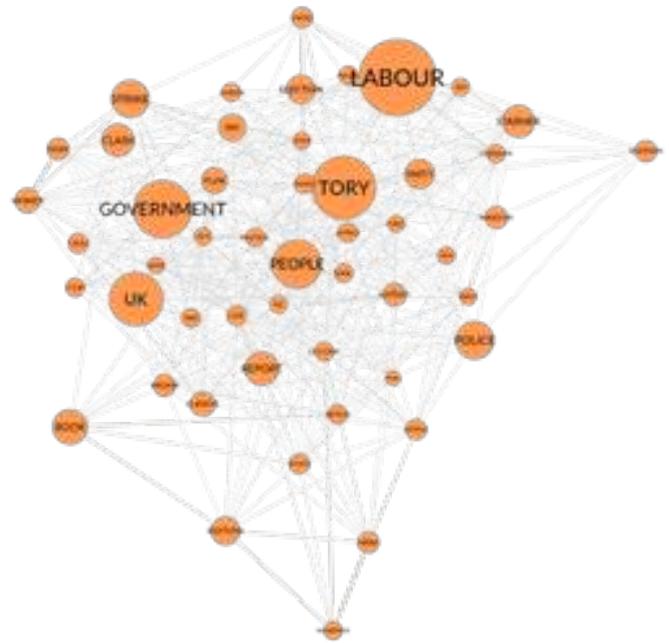
The COVID-19 pandemic remained very prominent in the agenda of Romanian alternative media throughout 2023 (e.g., Pfizer, COVID, vaccine, doctor, death, medical). In addition to these persisting topics, the war in Ukraine became another focal point of attention (e.g., Ukraine, war). We also note the curious presence of Donald Trump in the network, connected to the words “war” and “Ukraine,” possibly due to his comments on the matter, and his promise to end the war within 24 hours, should he be elected again in 2024.

United Kingdom

2021



2023



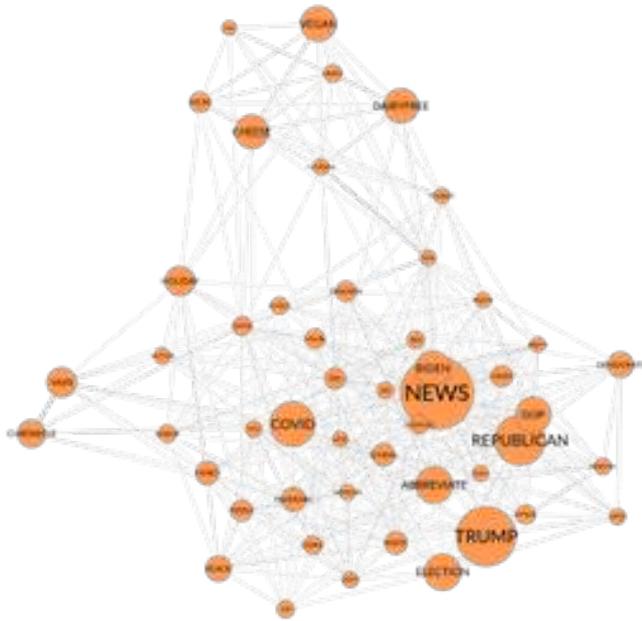
In 2021, British alternative media devoted attention to government and party politics (e.g., government, party, Tory, Labour, Starmer Keir), elections, and advocacy, possibly related to local elections or speculations regarding potential snap elections (e.g., election, campaign, activist, protest), and climate change and Glasgow's COP26 (e.g., COP26, climate, change, crisis, global, action, plan). The pandemic also received some attention (e.g., coronavirus, COVID, health, care), although much less than the aforementioned topics. Law and order received substantial attention—primarily via the word “police,” secondarily via “murder,” “officer” and “court.”

The network map for 2023 is remarkable. The word ‘war’ gathers very little attention, and the network map

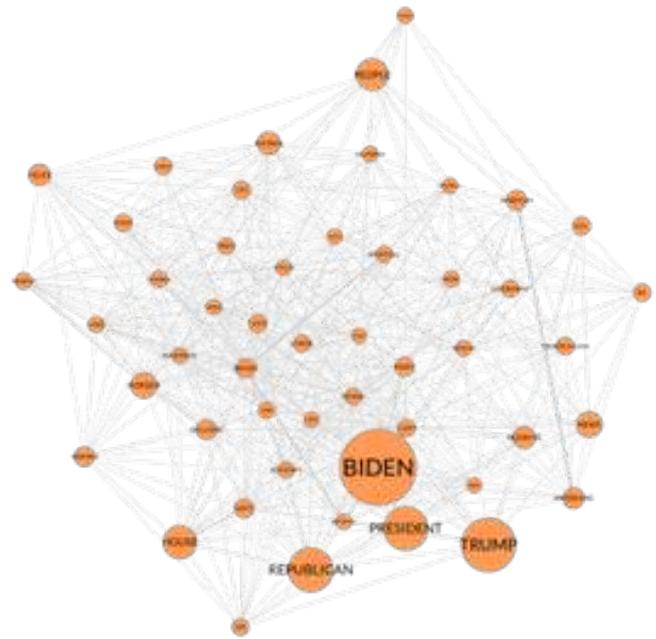
contains no single explicit reference to the geopolitical situation in Ukraine, or to Russia. 2023 is also characterized by great continuity in the prevalence of party politics and government (e.g., government, party, Labour, Tory, Starmer Keir) in the agenda of alternative media. Climate change still appears, though less prominently. The greatest difference between 2021 and 2023 is the subnetwork of terms—all significant in size—related to labor and worker strikes (e.g., worker, work, strike, claim, pay, union). The other interesting cluster that emerged between 2021 and 2023 deals with journalism and the press (e.g., news, newspaper, article, book, edition, report, exclusive). This cluster is less connected to the rest of the network. It is therefore difficult to trace its origins.

USA

2021



2023



In 2021, conversations in US alternative media largely gravitated around two clusters of topics. The first consisted of the 2020 election, Donald Trump and the Republican party. The other revolved around the COVID-19 pandemic, vaccines, deaths, and the omicron variant. A few references to courts, the house, and abortion should be noted, even though the Dobbs decision on abortion rights only leaked in 2022. Additionally, a significant cluster revolves around lifestyle and dietary choices, with terms like “vegan,” “cheese,” and “dairyfree.”

By 2023, attention overwhelmingly revolved around Joe Biden, Donald Trump, and the Republican party. Other public figures garnered some attention, like Ron Desantis and Tucker Carlson, possibly due to Desantis' presidential bid and Carlson's unexpected departure from Fox News. A major difference from 2021 is the rise of crime and immigration as significant topic clusters in 2023, with keywords like “police,” “shoot,” “arrest,” “charge,” “law,” “border,” and “migrant.”



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Grant Agreement No 822166



NORFACE
NETWORK







Appendix

Study One

Table A1

Percentages of alternative media users per country and political leaning of the alternative outlets

	General population		Alternative media users		
	Any Alternative Media	N	Both Left and Right	Only Left	Only Right
Austria	34	503	503	503	503
Belgium	26	255	255	255	255
Czech Republic	31	466	466	466	466
Denmark	28	423	423	423	423
France	43	651	651	651	651
Germany	27	397	397	397	397
Greece	60	896	896	896	896
Israel	47	711	711	711	711
Italy	46	686	686	686	686
Netherlands	37	553	553	553	553
Norway	34	505	505	505	505
Poland	46	682	682	682	682
Romania	61	915	915	915	915
Spain	63	951	951	951	951
Sweden	39	581	581	581	581
Switzerland	41	407	407	407	407
UK	25	375	375	375	375
USA	41	607	607	607	607

Note. Displayed are percentages. N=1,500 (except for Belgium and Switzerland N=1,000)

- 1 Share of the general population of respondents that stated to use any alternative media
- 2 Share of respondents among those using alternative media that use them from both sides left and right political leaning
- 3 Share of respondents among those using alternative media that use only left-leaning alternative media.
- 4 Share of respondents among those using alternative media that use only right-leaning alternative media.

Table A2

Mean age, political interest, and political ideology for alternative media users and non-users by country

	Age		Political interest		Political ideology		
	non-users	users	non-users	users	non-users	users	
Austria	42.0	41.3	4.23	5.22	4.78	4.97	***
Belgium	43.4	38.6	3.82	4.97	5.31	5.29	***
Czech Republic	41.8	42.1	3.72	4.80	5.61	5.47	
Denmark	43.9	40.0	3.96	5.10	4.87	4.89	***
France	43.5	41.2	3.82	5.20	5.19	5.11	
Germany	45.0	38.8	4.37	5.22	4.77	4.75	***
Greece	40.8	41.2	4.45	5.44	5.20	4.89	***
Israel	42.1	38.1 *	4.47	5.28	5.91	6.96	
Italy	44.0	42.3	3.98	5.28	5.05	5.06	***
Netherlands	44.6	38.6 *	3.69	4.87	5.01	5.87	**
Norway	42.7	41.1	3.91	4.92	5.14	5.25	***
Poland	41.3	40.8	4.38	5.41	4.92	5.47	**
Romania	41.0	40.0 *	3.45	4.97	5.42	6.00	**
Spain	42.8	40.9	3.63	5.23	4.28	4.61	***
Sweden	42.5	41.7	3.86	5.16	4.93	5.42	***
Switzerland	42.6	40.7	4.27	5.19	4.81	5.02	**
UK	43.7	36.6 *	4.02	5.06	4.63	4.96	**
USA	44.7	38.7 ***	3.49	5.04	4.96	5.60	***

Note. Age was measured in years; political ideology on a 10-point scale (0 = "left" to 10 = "right"), political interest on a 7-point scale (0 = "not interested at all" to 7 = "very interested"). Mean difference significance was assessed by independent t-tests. *p<.05, **p<.01, ***p<.001.

Table A3***Percentages of alternative media users by gender categories per country***

	within female	within male
Austria	26	42
Belgium	20	32
Czech Republic	25	37
Denmark	24	33
France	39	48
Germany	23	31
Greece	55	65
Israel	39	56
Italy	42	50
Netherlands	31	44
Norway	28	40
Poland	42	50
Romania	59	63
Spain	59	69
Sweden	29	49
Switzerland	37	45
UK	22	28
USA	31	51

Note. Displayed are percentage of alternative media users by gender and per country.

Table A4*Percentage of users for selected social media platforms and messenger services*

	Facebook	FB Messenger	Twitter	Instagram	YouTube	WhatsApp	Telegram
Austria	73	73	23	58	84	94	27
Belgium	82	82	29	58	74	85	14
Czech Republic	87	87	22	49	81	72	11
Denmark	88	88	24	58	75	22	5
France	82	82	33	55	78	61	14
Germany	66	66	22	52	74	89	22
Greece	92	92	45	75	95	44	18
Israel	84	84	30	62	94	97	52
Italy	86	86	41	75	88	98	58
Netherlands	76	76	28	57	79	95	18
Norway	88	88	34	71	82	33	11
Poland	91	91	39	61	91	61	20
Romania	93	93	39	72	96	96	38
Spain	81	81	56	76	89	98	51
Sweden	83	83	29	73	85	44	11
Switzerland	70	70	27	62	87	96	31
UK	77	77	45	56	79	79	12
USA	78	78	41	55	81	28	16

Table A5**Characteristics of Facebook users**

	Gender		Age		Political interest		Political ideology	
	Female	Male	non-users	users	non-users	users	non-users	users
Austria	75	70	42	41.7 ***	4.23	5.22	4.78	4.97 ***
Belgium	87	77	42.9	42 ***	3.82	4.97	5.31	5.29 ***
Czech Republic	93	81	48.2	40.9 *	3.72	4.80	5.61	5.47
Denmark	92	84	49.6	42	3.96	5.10	4.87	4.89 ***
France	87	76	44.9	42 ***	3.82	5.20	5.19	5.11
Germany	69	63	44.3	42.9 ***	4.37	5.22	4.77	4.75 ***
Greece	93	91	42.3	41 *	4.45	5.44	5.20	4.89 ***
Israel	86	81	37.4	40.8 ***	4.47	5.28	5.91	6.96
Italy	87	84	43.8	43.3 *	3.98	5.28	5.05	5.06 ***
Netherlands	82	69	41.6	42.6 *	3.69	4.87	5.01	5.87 **
Norway	92	84	43	42.1 ***	3.91	4.92	5.14	5.25 ***
Poland	95	87	49.1	40.3 *	4.38	5.41	4.92	5.47 **
Romania	95	92	40.2	40.6 *	3.45	4.97	5.42	6.00 **
Spain	83	79	40	42 ***	3.63	5.23	4.28	4.61 ***
Sweden	85	81	45.6	41.5	3.86	5.16	4.93	5.42 ***
Switzerland	73	66	41.3	42.1 ***	4.27	5.19	4.81	5.02 **
UK	82	71	44.9	41 *	4.02	5.06	4.63	4.96 **
USA	79	76	41	42.6 ***	3.49	5.04	4.96	5.60 ***

Note. Gender is displayed in percentages. Age was measured in years; political ideology on a 10-point scale (0 = "left" to 10 = "right"), political interest on a 7-point scale (0 = "not interested at all" to 7 = "very interested"). Mean difference significance was assessed by independent t-tests. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table A6**Characteristics of Twitter users**

	Gender		Age		Political interest		Political interest	
	Female	Male	non-users	users	non-users	users	non-users	users
Austria	15	32	42.2	40.4	4.37	5.24	4.9	4.68
Belgium	23	37	43.8	38.3	3.95	4.52	5.35	5.21
Czech Republic	17	28	42.8	38.8 *	3.9	4.59	5.47	5.86
Denmark	15	32	44.5	37.6	4.09	4.89	4.86	4.93
France	27	40	44.4	38.7	4.08	5.1	5.19	5.09
Germany	15	30	44.3	40.2	4.37	5.37	4.79	4.69 *
Greece	42	50	40.9	41.2	4.72	5.43	5.01	5.01
Israel	18	43	41.5	37.2	4.62	5.41	6.47	6.27
Italy	39	43	45.2	40.9	4.23	5.07	5.19	4.89
Netherlands	20	37	43.2	40.3	3.89	4.75	5.26	5.56 *
Norway	25	44	43.5	39.7 *	4.11	4.54	5.25	5.05
Poland	33	45	42.1	39.5	4.46	5.47	5.09	5.33
Romania	31	48	40.7	40.3	3.93	5.09	5.66	6.07
Spain	53	59	45.3	38.8	4.11	5.07	4.41	4.58
Sweden	18	41	43.6	38.8	4.11	4.98	5.12	5.17
Switzerland	21	35	42.2	41	4.46	5.13	4.94	4.8 **
UK	43	47	44.6	38.6	3.93	4.71	4.93	4.48 ***
USA	32	52	45.2	38.1***	3.68	4.75	5.22	5.26

Note. Gender displayed in percentages. Age was measured in years; political ideology on a 10-point scale (0 = "left" to 10 = "right"), political interest on a 7-point scale (0 = "not interested at all" to 7 = "very interested"). Mean difference significance was assessed by independent t-tests. *p<.05, **p<.01, ***p<.001.

Table A7***Users in percent on selected social media platforms and messenger services by gender***

	FB Messenger		Instagram		YouTube		WhatsApp		Telegram	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Austria	63	54	61	54	85	84	95	93	24	30
Belgium	85	75	62	54	70	78	87	83	10	19
Czech Republic	91	78	53	45	82	80	75	68	8	15
Denmark	93	98	69	47	74	75	21	24	2	8
France	83	66	59	50	79	78	62	60	10	18
Germany	57	49	55	48	70	78	92	86	22	24
Greece	95	90	80	71	95	95	43	44	15	23
Israel	76	68	64	59	93	96	97	98	42	63
Italy	81	76	79	71	87	90	99	98	56	60
Netherlands	73	57	61	53	79	78	96	94	16	20
Norway	92	84	77	64	78	87	29	37	8	15
Poland	93	83	70	52	91	90	64	57	18	21
Romania	94	91	73	71	96	96	97	95	31	45
Spain	63	58	80	71	89	89	99	98	55	48
Sweden	85	80	79	68	82	88	40	47	7	17
Switzerland	65	53	67	57	86	89	97	96	27	35
UK	80	64	66	46	80	78	84	72	10	14
USA	71	69	54	57	76	86	21	35	10	23

Table A8*Mean age of users of selected social media platforms and messenger services*

	FB Messenger	Instagram	YouTube	WhatsApp	Telegram
Austria	41.6	37.3	40.3	41.4	41.1
Belgium	41.4	38.1	39.2	41.4	37
Czech Republic	40.3	37.1	40.5	41.2	39
Denmark	41.7	38.6	40.4	41.1	34.7
France	40.9	37.5	40.1	40.4	36.8
Germany	42.4	38.1	41.2	42.5	39.6
Greece	40.6	39.4	40.6	40.5	39.1
Israel	40.7	38.4	39.9	40.4	38.1
Italy	43.1	41.2	42.4	43.3	40.6
Netherlands	42.3	38	39.7	42	37.2
Norway	41.9	39.9	40.8	40.9	37.8
Poland	39.9	37.5	40.1	41.2	38.7
Romania	40.5	38.7	40.4	40.4	38.6
Spain	41.7	39.3	40.7	41.5	39.1
Sweden	41.4	39.8	40.8	40.7	38.5
Switzerland	41.6	38.5	40.9	41.5	40.5
UK	40.5	36.8	39.9	40.6	34.8
USA	41.9	38	40	38.5	35.9

Note. Age was measured in years.

Table A9***Political ideology of users of selected social media platforms and messenger services***

	FB Messenger	Instagram	YouTube	WhatsApp	Telegram
Austria	4.61	4.56	4.63	4.55	4.82
Belgium	4.11	4.18	4.19	4.11	4.42
Czech Republic	3.97	4.06	4.11	4.08	4.31
Denmark	4.24	4.27	4.33	4.56	5.15
France	4.43	4.57	4.52	4.61	5.13
Germany	4.68	4.65	4.77	4.55	4.79
Greece	5.04	5.07	5.06	5.29	5.41
Israel	4.91	4.86	4.86	4.86	5.06
Italy	4.66	4.6	4.65	4.59	4.74
Netherlands	4.16	4.2	4.22	4.13	4.59
Norway	4.23	4.13	4.35	4.53	4.72
Poland	4.84	4.85	4.9	5	5.34
Romania	4.41	4.52	4.42	4.39	4.91
Spain	4.77	4.72	4.71	4.66	4.94
Sweden	4.35	4.29	4.43	4.59	5.17
Switzerland	4.61	4.63	4.73	4.62	4.78
UK	4.31	4.36	4.38	4.29	5.04
USA	4.24	4.36	4.24	4.7	4.94

Note. Political interest was measured on a 7-point scale (0 = "not interested at all" to 7 = "very interested").

Table A10*Political interest of users of selected social media platforms and messenger services*

	FB Messenger	Instagram	YouTube	WhatsApp	Telegram
Austria	4.85	4.7	4.81	4.85	5.01
Belgium	5.39	5.18	5.18	5.34	5.49
Czech Republic	5.48	5.71	5.6	5.65	5.97
Denmark	4.85	4.8	4.86	5.04	4.84
France	5.2	5.12	5.1	5.14	5.24
Germany	4.85	4.74	4.75	4.78	5.05
Greece	5.03	5.05	5.04	5.15	5.12
Israel	6.33	6.34	6.41	6.4	6.48
Italy	5.13	5.05	5.07	5.06	4.96
Netherlands	5.44	5.45	5.38	5.38	5.69
Norway	5.18	5.18	5.13	5.29	5.64
Poland	5.16	5.15	5.19	5.08	5.68
Romania	5.87	5.91	5.87	5.88	5.93
Spain	4.74	4.56	4.53	4.5	4.68
Sweden	5.09	5.02	5.15	5.27	5.6
Switzerland	4.92	4.73	4.87	4.87	5.02
UK	4.73	4.58	4.66	4.71	5.27
USA	5.29	5.27	5.24	5.65	6.41

Note. Political ideology was measured on a 10-point scale (0="left" to 10="right").

Study Two

Table A11

Profiles used for the Study Two (Sotrender)

Austria

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Das Magazin für Patrioten	www.facebook.com/102501421318169	2021	557	6900		
kontrast.at	www.facebook.com/1079650008770485	2021/23	1030	1291255	532	300620
unzensuriert.at	www.facebook.com/61474458710	2021/23	1808	496246	1588	130746
Zack Zack	www.facebook.com/674089153034374	2021/23	1885	475620	1200	62526
Twitter						
Kontrast_at	www.twitter.com/Kontrast_at	2021/23	325	26235	271	32248
RedaktionZack	www.twitter.com/RedaktionZack	2021/23	1460	113680	1045	44823
unzensuriert	www.twitter.com/unzensuriert	2021/23	1333	10319	983	7559

Belgium

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Apache	www.facebook.com/325029089769	2021	1039	41144	619	12987
De Wereld Morgen	www.facebook.com/339983370468	2021/23	769	34795	645	13139
Doorbraak	www.facebook.com/131309180245958	2021/23	1764	81813	2188	56022
PAL NWS	www.facebook.com/319022301765098	2021/23	1743	401582	2405	219196
Twitter						
Apache_be	www.twitter.com/Apache_be	2021/23	826	10708	582	11062
dewereldmorgen	www.twitter.com/dewereldmorgen	2021/23	885	3286	421	1354
DoorbraakBe	www.twitter.com/DoorbraakBe	2021/23	1323	11731	2544	19450
PALNWS	www.twitter.com/PALNWS	2021/23	1544	30357	1831	47308

Czech Republic

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
AC24	www.facebook.com/176546515755264	2021/23	1795	126922	2894	12987
AE News	www.facebook.com/309989579534424	2021	22	3		
Alarm	www.facebook.com/623521487687579	2021/23	1344	145903	832	56022
Deník Referendum	www.facebook.com/203833483473	2021/23	960	43442	822	21342
halonoviny.cz	www.facebook.com/379600488789567	2021	952	7433		
New World Order Opposition Organization	www.facebook.com/61731121893	2021/23	100	387	24	129
ParlamentníListy.cz	www.facebook.com/135144949863739	2021/23	2042	502725	1573	224971
Věk Světla	www.facebook.com/1781861465420457	2021/23	3	97	3	52
Twitter						
A2Iarm	www.twitter.com/A2Iarm	2021/23	591	11268	163	5299
AC24cz	www.twitter.com/AC24cz	2021/23	1730	5390	1817	1650
aeronet_cz	www.twitter.com/aeronet_cz	2021/23	203	5209	167	4562
DReferendum	www.twitter.com/DReferendum	2021/23	572	3220	737	5861
pravyprostor	www.twitter.com/pravyprostor	2021/23	2212	5075	2460	6386

Denmark

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
180Grader	www.facebook.com/175052915862375	2021/23	776	21569	395	1395
24NYT	www.facebook.com/100628908746085	2021/23	296	715	2302	4007
Dagbladet Arbejderen	www.facebook.com/107312505953273	2021/23	1032	29204	819	16685
DEN KORTE AVIS	www.facebook.com/152904881482813	2021/23	893	293397	638	76803
Indblik.dk	www.facebook.com/458650074898193	2021/23	1823	274438	103	1191
Konfront	www.facebook.com/2003892889833891	2021/23	170	2354	29	191
Netavisen Pio	www.facebook.com/2003892889833891	2021/23	1605	178882	1100	30334
Socialt Indblik	www.facebook.com/103238548473026	2021/23	23	80	62	1599
Solidaritet	www.facebook.com/158777500848771	2021/23	653	15533	238	4578
Twitter						
24NYTdk	www.twitter.com/24NYTdk	2021/23	1693	1282	913	800
Arbejderen	www.twitter.com/Arbejderen	2021/23	610	3300	650	2729
indblik	www.twitter.com/indblik	2021	489	5476		
Solidaritetsdk	www.twitter.com/Solidaritetsdk	2021/23	246	580	8	20

France

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Alternatives économiques	www.facebook.com/219062948053	2021/23	1741	92619	2713	40605
Dreuz.info	www.facebook.com/151923394829668	2021/23	1740	101395	534	8793
FranceSoir	www.facebook.com/53638966652	2021/23	1712	666846	1371	140893
La vérité sur notre monde	www.facebook.com/1736804423252746	2021	3	165		
Minute Hebdo	www.facebook.com/525189537573978	2021	2	0		
Valeurs actuelles	www.facebook.com/299111843523312	2021/23	2043	691512	5496	1006914
Twitter						
AlterEco_	www.twitter.com/AlterEco_	2021/23	1569	54364	163	40933
canardenchaîne	www.twitter.com/canardenchaîne	2021/23	142	34936	1817	359953
EetR_National	www.twitter.com/EetR_National	2021/23	1058	9757		
france_soir	www.twitter.com/france_soir	2021/23	3250	1197756	973	285756
reseau_internet	www.twitter.com/reseau_internet	2021/23	953	8156	3811	58570
voltairenetFr	www.twitter.com/voltairenetFr	2021/23	45	33	104	1132
Dreuz_1fo	www.twitter.com/Dreuz_1fo	2023			1684	2544

Germany

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Achgut.com - Die Achse des Guten	www.facebook.com/180481025298371	2021/23	1743	753809	1209	1395
Deutsche Wirtschafts Nachrichten	www.facebook.com/254235937994328	2021/23	1741	121207	2015	4007
JUNGE FREIHEIT	www.facebook.com/13479664941	2021/23	1737	665197	2060	16685
junge Welt	www.facebook.com/123292927706635	2021/23	1842	73161	4518	76803
NachDenkSeiten	www.facebook.com/215636828626	2021/23	1802	379318	1538	1191
Tichys Einblick	www.facebook.com/716555961791942	2021/23	1747	887254	3819	191
Twitter						
Achgut_com	www.twitter.com/Achgut_com	2021/23	1263	94955	1105	800
COMPACTMagazin	www.twitter.com/COMPACTMagazin	2021/23	1656	77046	1851	2729
DWN_de	www.twitter.com/DWN_de	2021	2705	5781	1233	1125
EpochTimesDE	www.twitter.com/EpochTimesDE	2023			2566	13863
Junge_Freiheit	www.twitter.com/Junge_Freiheit	2021/23	1980	147873	2278	647384
jungewelt	www.twitter.com/jungewelt	2021/23	703	7219	3039	76656
NachDenkSeiten	www.twitter.com/NachDenkSeiten	2021	1007	18435	1060	81707
RolandTichy	www.twitter.com/RolandTichy	2021/23	828	295114	2221	2195514

Greece

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
liberal.gr	www.facebook.com/1645903788996329	2021/23	1804	73415	38710	634791
ProNews.gr	www.facebook.com/1672296909720895	2021/23	455	11831	2	60
TV Χωρίς Σύνορα	www.facebook.com/126096294070106	2021/23	1745	103477	15611	587556
Twitter						
LiberalGr	www.twitter.com/LiberalGr	2023			26255	52341
pronewsgr	www.twitter.com/pronewsgr	2023			27424	13380
tvxs	www.twitter.com/tvxs	2023			14128	14582

Israel

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
404	https://www.facebook.com/www.0404.co.il/	2021/23	2145	654046	11305	3351173
הטלוויזיה החברתית Social TV التلفزيون الاجتماعي	https://www.facebook.com/israelsocialtv/	2021/23	116	2702	21	3280
המקום הכי חם בגיהנום	https://www.facebook.com/hottestplaceinhell/	2021/23	500	117584	299	37198
מידה	https://www.facebook.com/MidaMag	2021/23	653	97228	764	21169
רוטרנט - סקופים וחדשות	https://www.facebook.com/scoops.rotter.net/	2021/23	1924	659295	1151	675678
שיחה מקומית	https://www.facebook.com/mekomit/	2021/23	1091	60345	579	27975
Twitter						
0404news	www.twitter.com/0404news	2021/23	1852	15501	6052	52387
ha_makom	www.twitter.com/ha_makom	2021/23	290	15465	279	18308
IsraelSocialTV	www.twitter.com/IsraelSocialTV	2021/23	4	2	23	24
mekomit	www.twitter.com/mekomit	2021/23	882	15553	1182	21097
MidaWebsite	www.twitter.com/MidaWebsite	2021/23	351	26653	666	34590

Italy

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
il manifesto	www.facebook.com/61480282984	2021/23	1716	306331	2502	205934
Imola Oggi	www.facebook.com/1845903395506673	2021/23	1744	175474	8352	634121
La Verità	www.facebook.com/1583832781922269	2021/23	1748	858278	6001	1834669
No Islam Italia	www.facebook.com/2053633971516461	2021/23	1754	24368	5043	25768
Segnidalcielo - Segni di una Nuova Era	www.facebook.com/157049077711928	2021/23	50	2265	4	87
Twitter						
fionnet	www.twitter.com/fionnet	2023			4	56
ilmanifesto	www.twitter.com/ilmanifesto	2021/23	1015	33718	1611	108632
ImolaOggi	www.twitter.com/ImolaOggi	2023			5413	569637
sadefenza	www.twitter.com/sadefenza	2021/23	408	3006	927	3350
UilmNazionale	www.twitter.com/UilmNazionale	2023			2	7
segnidalcielo	www.twitter.com/segnidalcielo	2021	8	14		

Netherlands

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
De Dageijkse Standaard	www.facebook.com/107534521556106	2021/23	1719	25775	3079	38361
GeenStijl	www.facebook.com/329195620509055	2021/23	1739	272286	1623	129164
Joop	www.facebook.com/162969583760518	2021/23	1748	115597	3241	78684
Twitter						
DDStandaard	www.twitter.com/DDStandaard	2021/23	478	26891	1998	134679

Norway

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Agenda Magasin	www.facebook.com/428193907379911	2021/23	661	62377	459	22679
Document.no	www.facebook.com/147969189459	2021/23	14	715	6706	1324756
Radikal Portal	www.facebook.com/291928694261801	2021/23	95	2816	1	4
Resett	www.facebook.com/266169710462617	2021/23	1742	524511	4063	470260
Rights.no	www.facebook.com/482291515135453	2021/23	906	295890	566	115821
steigan.no	www.facebook.com/569511213242047		1798	185166	2497	132122
Twitter						
AgendaMagasin	www.twitter.com/AgendaMagasin	2021/23	342	1440	304	1298
DocumentNo	www.twitter.com/DocumentNo	2021/23	638	2971	1275	9158
HRSnorge	www.twitter.com/HRSnorge	2021/23	575	4798	393	2210
PSteigan	www.twitter.com/PSteigan	2021/23	397	1927	1487	13667

Poland

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Krytyka Polityczna	www.facebook.com/74863922834	2021/23	661	62377	459	22679
Lewica.pl	www.facebook.com/245985269840	2021/23	14	715	6706	1324756
Najwyższy CZAS!	www.facebook.com/111700175525543	2021/23	95	2816	1	4
Niezalezna.pl	www.facebook.com/108917389163070	2021/23	1742	524511	4063	470260
Racjonalista.pl	www.facebook.com/114368419365	2021/23	906	295890	566	115821
wPolityce.pl	www.facebook.com/121020967939615	2021/23	1798	185166	2497	132122
Twitter						
GPTYgodnik	www.twitter.com/GPTYgodnik	2021/23	13	172	7	231
idzpodpradpl	www.twitter.com/idzpodpradpl	2021/23	1652	78804	1089	44951
NCZAS1	www.twitter.com/NCZAS1	2021/23	1289	11803	2839	90207
niezaleznapl	www.twitter.com/niezaleznapl	2021/23	14352	136434	6433	158201
Ordoluris	www.twitter.com/Ordoluris	2021/23	4	232	2	75
RacjonalnaPL	www.twitter.com/RacjonalnaPL	2021/23	182	4305		
RepublikaTV	www.twitter.com/RepublikaTV	2021/23	21	168	20	308
wPolityce_pl	www.twitter.com/wPolityce_pl	2021/23	23004	864688	11823	505958

Romania

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
4media.INFO	www.facebook.com/114460923709287	2021/23	1738	742236	2326	248795
ActiveNews	www.facebook.com/391427597626940	2021/23	1688	91964	5369	162158
aktual24.ro	www.facebook.com/776571519096433	2021/23	4056	3206494	4937	1013356
Epoch Times Romania	www.facebook.com/321280267596	2021/23	5009	3510698	8658	1450995
Ziariștii	www.facebook.com/2164135647137716	2021/23	1783	230481	2056	73551
Twitter						
ActiveNewsRo	www.twitter.com/ActiveNewsRo	2021/23	308	819	348	1504

Spain

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
El Correo de España	www.facebook.com/546698988685649	2021/23	1750	4549	2785	3005
El Salto	www.facebook.com/116863160468	2021/23	1781	131295	3670	151761
InfoHispania	www.facebook.com/1236322346509192	2021/23	260	533	13	3
infoLibre	www.facebook.com/431636473553401	2021/23	1743	279554	7842	543502
Libertad Digital	www.facebook.com/141423087721	2021/23	8447	523261	12025	543356
okdiario.com	www.facebook.com/376573025871689	2021/23	16783	3366397	35028	4235777
Periodista Digital	www.facebook.com/376573025871689	2021/23	1667	367584	5453	528724
Twitter						
ElSaltoDiario	www.twitter.com/ElSaltoDiario	2023			9134	142506
Endesa	www.twitter.com/Endesa	2023			1	3
Info_Hispania	www.twitter.com/Info_Hispania	2021/23	331	191	146	100
_infoLibre	www.twitter.com/_infoLibre	2023			8989	227302
libertaddigital	www.twitter.com/libertaddigital	2023			6093	289147
MediterraneoDGT	www.twitter.com/MediterraneoDGT	2021/23	1762	98899	1251	249617
ntvespana	www.twitter.com/ntvespana	2021/23	1007	3052	3146	6068
periodistadigit	www.twitter.com/periodistadigit	2021/23	371	7014	3078	34953
rielcano	www.twitter.com/rielcano	2023				

Sweden

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Flamman	www.facebook.com/316462188971	2021/23	559	18791	459	13867
FriaTider.se	www.facebook.com/112400195443617	2021/23	643	203469	326	49228
Nyheter Idag	www.facebook.com/647421441984111	2021/23	1745	591705	1090	174243
Samhällsnytt	www.facebook.com/1916606461940878	2021/23	1743	302658	1301	156817
Twitter						
AgnesWold	www.twitter.com/AgnesWold	2023			1	34
ETC_redaktionen	www.twitter.com/ETC_redaktionen	2021/23	1556	7451	1819	30168
Flamman_	www.twitter.com/Flamman_	2021/23	377	2477	376	6889
friatider	www.twitter.com/friatider	2021/23	783	59841	760	58728
samhallsnytt	www.twitter.com/samhallsnytt	2021/23	1810	89870	1907	121660

Switzerland

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
DIE WELTWOCH	www.facebook.com/38916537049	2021/23	1790	94872	1790	72060
ExpressZeitung	www.facebook.com/1378045312483970	2021/23	45	4858	16	295
INFO Schweiz	www.facebook.com/201684812063	2021/23	757	86787	343	119541
Infosperber	www.facebook.com/159492510740242	2021/23	962	14436	750	4835

United Kingdom

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Byline Times	www.facebook.com/1281269518681542	2021/23	1558	185293	1027	48995
Guido Fawkes	www.facebook.com/160128910791789	2021/23	1745	272690	2183	75648
Heaver News	www.facebook.com/1070954163040450	2021/23	834	220898	316	19428
Novara Media	www.facebook.com/404716342902872	2021/23	798	272515	2919	489689
The Canary	www.facebook.com/933818496656944	2021/23	1874	329844	2737	74908
WorldTruth.Tv	www.facebook.com/367730457538973	2021/23	1373	1512	421	131
Twitter						
BylineTimes	www.twitter.com/BylineTimes	2023			1528	178984
ChathamHouse	www.twitter.com/ChathamHouse	2023			2	125
GuidoFawkes	www.twitter.com/GuidoFawkes	2023			4921	573975
HeaverNews	www.twitter.com/HeaverNews	2023			3	633
novaramedia	www.twitter.com/novaramedia	2021/23	1108	126273	2414	198181
TheCanaryUK	www.twitter.com/TheCanaryUK	2021/23	1807	50172	2024	24066

USA

Name of outlet	Link	Year	Posts 2021	Likes 2021	Posts 2023	Likes 2023
Facebook						
Breitbart	www.facebook.com/95475020353	2021/23	965	6546600	4878	11060601
Daily Kos	www.facebook.com/43179984254	2021/23	1703	586039	828	135881
Occupy Democrats	www.facebook.com/346937065399354	2021/23	3013	4285445	15110	86353474
The Daily Caller	www.facebook.com/182919686769	2021/23	1739	6	17925	8380452
The Epoch Times	www.facebook.com/92239399265	2021/23	1504	3066614	19299	3022079
The Young Turks	www.facebook.com/210277954204	2021/23	1483	5320037	26158	5829950
Twitter						
bennyjohnson	www.twitter.com/bennyjohnson	2023			1	3443
BreitbartNews	www.twitter.com/BreitbartNews	2023			7119	2659934
DailyCaller	www.twitter.com/DailyCaller	2023			14654	2337389
dailykos	www.twitter.com/dailykos	2021/23	1060	28565	327	9583
FollowYourHeart	www.twitter.com/FollowYourHeart	2021/23	231	4703	40	493
MZHemingway	www.twitter.com/MZHemingway	2023			2	379
OccupyDemocrats	www.twitter.com/OccupyDemocrats	2023			4205	13968505
SpheraNetwork	www.twitter.com/SpheraNetwork	2023			2	2
ViolaNewYork	www.twitter.com/ViolaNewYork	2021/23	2	0	9	19

Note. Posts refer to the number of posts on Facebook and tweets on Twitter, respectively.



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