

FULL PAPER

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demokratiskeptischen Orientierungshorizonten:
Eine Inhaltsanalyse**

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German-speaking hyperpartisan, alternative, and conspiracy Telegram channel types: A content analysis**Typen deutschsprachiger Telegram-Kanäle mit demokratie-skeptischen Orientierungshorizonten: Eine Inhaltsanalyse**

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Abstract: This article scrutinizes the anti-establishment media sphere in German-speaking countries along high-reach Telegram channels. We are theorizing this sphere as communicative figuration. To describe this figuration, we conducted a quantitative content analysis of the 40 most influential German-speaking hyperpartisan, alternative, and conspiracy Telegram channels (HAC) in 2023. Our sample of more than 2,700 single posts allows us to build a typology of these channels. Our seven types represent a broad variety of different practices. Thus, the alternative public discourse emerging from the most influential Telegram channels can be seen as a diverse and dynamic network of interactions. The importance of curation as an editorial practice seems to be a major characteristic of HAC Telegram channels.

Keywords: Types of Telegram channels; hyperpartisan, alternative, and conspiracy media; frames of relevance; practices; content analysis

Zusammenfassung: Dieser Beitrag analysiert reichweitenstarke systemskeptische Telegram-Kanäle im deutschsprachigen Raum. Er beschreibt diesen Teil einer alternativen Mediensphäre als kommunikative Figuration und untersucht daher relevante Akteur*innen, Praktiken und Orientierungshorizonte. Um die Konfiguration nachzuzeichnen, wurden in einer quantitativen Inhaltsanalyse insgesamt 2700 Beiträge aus 40 reichweitenstarken systemskeptischen Telegram-Kanälen untersucht. Auf Basis dieser Daten werden sieben Kanaltypen identifiziert, die eine große Bandbreite von Kommunikationspraktiken abbilden. Davon ausgehend können systemskeptische Diskurse auf Telegram als vielfältiges und dynamisches Netzwerk von Kommunikation beschrieben werden. Die Kuratierung von Beiträgen ist eine charakteristische Praxis innerhalb dieses Netzwerks.

Schlagwörter: Typologie von Telegram-Kanälen, alternative Medien, Orientierungshorizonte, Praktiken, Inhaltsanalyse

1. Introduction

The dissemination of disinformation embedded in populist narratives is considered a major threat to public debates in pluralistic democracies (Zimmermann & Kohring, 2020, p. 23). Telegram has become a popular platform for extremist, far-right, and conspiracy-theory actors due to its libertarian approach to govern-

ance. A broad usage of this social media platform has been observed in German-speaking countries since 2018, with a significant increase during the COVID pandemic (Schulze et al., 2022, p. 1104). Studies suggest that this development increases polarization in public discourse (Hohlfeld et al., 2021; Holzer, 2021). In German-speaking countries, a couple of (semi-) professional channels are considered the backbone of the anti-establishment media sphere (Zehring & Domahidi, 2023). This study describes how these channels use Telegram to construct this sphere communicatively (Wimmer, 2014, p. 288). We broaden our understanding of these channels by simultaneously exploring topics and editorial practices. We suppose that different actors utilize Telegram and its particular platform features in different ways for different purposes depending on their ideological background, such as for spreading propaganda or activating its community. We assume that typical professional usage patterns occur along these differences. We aim to identify these patterns by observing their ideological background, topical focus and dominant production practices simultaneously.

We conducted a quantitative content analysis of the 40 high-reach German-speaking hyperpartisan, alternative, and conspiracy (HAC) Telegram channels (de León et al., 2024) in 2023. The sample of 2,669 single posts described in detail the kind of topics the channels communicate, their ideological beliefs, and their practices in creating and sharing content. The study aims to build a typology of certain patterns in the channels' use of Telegram to comprehend the reflection of actors' identities in their posts, their practices, topics, and frames of relevance. Based on the communicative figurations emerging from these attributes, we could distinguish seven types of German-language HAC Telegram channels.

2. Current research and research questions

2.1 Theoretical background: The hyperpartisan, alternative, and conspiracy media sphere

Recently, the COVID-19 pandemic drew the attention of communication researchers to Telegram as a platform for disseminating alternative discourses and worldviews and for finding and mobilizing like-minded people (Buehling & Heft, 2023). Owing to editorial restrictions on other platforms, many who oppose the prevention and vaccination measures have joined Telegram to stay informed beyond the alleged mainstream discourse, voice their objections to the political and societal response to the coronavirus threats, and sometimes even mobilize protests (Jost & Dogruel, 2023). Telegram's technology makes the platform attractive for political actors beyond its commitment to privacy: It serves simultaneously as a messenger service, a platform for small group discussion, and a broadcast medium with channels with unlimited participants, easily linking these three layers.

Telegram is a volatile and diverse environment utilized by a broad range of actors from different ideological backgrounds. At the same time one can observe similarities in communication patterns and links between these actors. To describe this complex network appropriately, we adopted de León et al.'s (2024) concept of "hyperpartisan, alternative, and conspiracy (HAC) media" and re-

ferred to the Telegram channels under study as HAC Telegram channels. De León et al. (2014) aim at integrating seemingly different but essentially connected phenomena in the online disinformation sphere: “The alternative, hyperpartisan, and conspiracy quality of these sites are [...] different manifestations of a similar underlying anti-establishment sentiment that dominates much of the online content flagged as problematic.” (pp. 5-6) The HAC concept is more inclusive regarding content rather than topic-specific Telegram spheres, such as the “Querdenken” discourse during the COVID-19 pandemic (Jost & Dogruel, 2023; Zehring & Domahidi, 2023), and regarding actor types rather than describing specific roles, such as (far-right) influencers (Rothut et al., 2023). However, it does not include “radical” Telegram channels (Jost & Dogruel, 2023).

To distinguish different kinds of channels within the HAC, we propose to conceptualize communicative activities on Telegram as a communicative figuration (Hepp, 2018, p.7). Such a figuration should comprise at least four dimensions: (1) actor identities, (2) the set of current political topics a channel argues, (3) frames of relevance regarding “shared orientations that these actors have in practice within a figuration” (Hepp et al., 2018, p.8), e.g., ideological beliefs and conspiracy theories, that are referenced, and (4) communicative practices, including curating and forwarding content, embedding media into messages, and rhetoric and stylistic strategies of persuasion. This theoretical perspective stresses that practices of channel providers are embedded in a specific social context. At the same time, it provides us with a clear analytical framework to identify patterns in a very diverse environment. Typical recurring constellations of these dimensions should make it possible to typologize Telegram channels referring to broadcasting features as well as to sharing and comment functions, and tools for individual or small-group communication. This is the major aim of our study.

2.2 Structures and different roles of actors in the HAC media sphere

On Telegram, the anti-COVID-prevention movement — known as the “Querdenken” movement in Germany — partly merged with other actors who had already inhabited the platform before. These are especially political actors, far-right activists, and conspiracy theorists (Rothut et al., 2023). These actors were accompanied by respective information and news providers—the so-called alternative media (Zehring & Domahidi, 2023). However, an anti-establishment stance appears to unite them, which can manifest itself to oppose perceived elites, the government, the state, or the so-called mainstream (media) discourses and policies.

The emergence of HAC media, particularly HAC Telegram channels, has realized various actors with diverse backgrounds and varying emphases on different content types, such as long-standing ideological beliefs, current political topics, related news, and calls for protests and other political actions (Staender, Humprecht, & Esser, 2024): hyperpartisan information and news providers with openly skewed agendas and one-sided perspectives on political and societal issues driven by ideological beliefs and links to political groups (Stier et al., 2021); alternative media and their Telegram spin-offs “as a truth-telling alternative to large media organisations that are seen as doing the bidding of powerful elites” (de León et al., 2024, p. 4);

and channels promoting conspiracy theories from QAnon and health-industry skepticism to wellbeing-oriented esotericism (Zehring & Domahidi, 2023).

Several studies have characterized types of actors and channels within the (Telegram) HAC sphere based on different sampling procedures, variables, and methods of analysis and community detection (see Table 1). Combining a network analysis of forwards with structural topic modeling, Rothut et al. (2023) observed “the emergence of a functionally differentiated far-right influencer collective on Telegram” (p. 3) with six communities ranging from traditional, folkish-nationalist activists to conspiracy ideologues to audience-oriented news producers. In their descriptions of communities, they add specific characteristics such as activism and parasocial interactions, which seem to be derived from the topic model. Zehring and Domahidi (2023) applied a similar analytical approach to a larger sample of Telegram channels from the German “Querdenken” anti-COVID-prevention measures discourse including far-right channels and alternative media. They detected 19 distinct communities, among which the German QAnon movement and far-right publicists were the largest alongside major “Querdenken” activists.

Table 1. Comparison of typologies of German-speaking Telegram channels

	Rothut, Schulze, Hohner, & Rieger (2023)	Zehring & Domahidi (2023)	Bader, Müller, & Rinsdorf (2023)	Staender, Humprecht, & Esser (2024)
Platform	Telegram	Telegram	Telegram	Facebook
Sampling	243 far-right influencers (from seed list and snowball sampling)	557 Querdenken, far-right and alternative-media channels (from seed lists and snowball sampling)	23 high-reach and frequently active channels (from within the anti-establishment discourse)	25 most popular alternative media outlets during the Covid-19 pandemic in five countries
Date collection (relevant for type formation / community detection)	Automated collection of 724,583 posts	Automated collection of 1,225,406 forwarded messages	Qualitative manual content analysis of 576 posts	Quantitative manual content analysis of 1661 posts (70 most popular posts per outlet)
Procedure of type formation / community detection	Network analysis based on forwarded messages	Network analysis based on forwarded messages	Iterative process with key characteristics from actor identities, frames of relevance, topics, and practices	Hierarchical cluster analysis of substantive core categories of misinformation
Additional characterization of types	Communication and interaction patterns (likely derived from results of structural topic modeling)	Prevalent topics per groups of several communities via structural topic modeling	[Included in procedure of type formation]	Genre-typical features of misinformation (e.g., conspiratorial rhetoric, calls for skepticism, use of pseudo-experts)
Number of types	6 communities	19 communities	6 channel types	4 clusters

In a qualitative content analysis, Bader, Müller & Rinsdorf (2023) differentiated 23 high-reach and frequently active Telegram channels based on multiple dimensions such as actor identities, practices, topics, and ideological orientations. While community detection with the help of computational methods tends to emphasize similarities and differences of content layers, Bader, Müller & Rinsdorf (2023, p. 257) took patterns in communicative practices as a starting point to distinguish between different types of channels. They could identify a group of channels mimicking journalistic style and another with a focus on forwarding messages without creating original content, for example. Likewise, in a quantitative manual content analysis of 25 popular alternative media outlets on Facebook during the COVID-19 pandemic, Staender et al. (2024) combined core characteristics of misinformation with supplementary genre-typical features to develop and further describe a typology. Hence, an analytical distinction between layers of actor identities, content foci and practices appears as a promising approach to develop a typology of HAC Telegram channels comprising a variety prominent alternative news providers, influencers and activists. That leads us to our main research question:

RQ1: What types of telegram channels in the German HAC sphere can be distinguished?

To answer this question, we are exploring the HAC along the major dimensions of a communicative figuration.

2.2.1 Actor identities

Regarding the actors we focused on two aspects. At the backdrop of the hybrid character of Telegram as messenger service and broadcasting platform we were interested in the degree and manner of interaction between the channels and their users. This indicates to which extent even high-reach channels adapt themselves to the interactive logic of the platform. Additionally, a recent study by Jost and Dogruel (2023) supports the idea to have a closer look at populism elements as defined by de Vreese et al. (2018) with (1) references to the people, (2) anti-elitism, and (3) the exclusion of out-groups. Channels that engaged in such appeals while interacting with its followers surpassed the pure provision of news, information, and frames of relevance. They add another communication layer to recognize distinct types of communicators beyond thematic patterns, such as dedicated activists.

2.2.2 Set of current political topics a channel argues

The set of political topics a channel is covering helps us to position a channel in the HAC sphere. Specifically, we are interested in patterns emerging from the prevalence and diversity of topics covered in a channel. Prevalence is the frequency with which a channel refers to a specific topic or a set of topics. Diversity describes the distribution of attention between topics on a channel. Both hint towards the specific role of a channel within the HAC. It is for instance quite unlikely that e.g., a one-topic channel with a clear background in conspiracy myths will mimic journalistic newsroom routines.

2.2.3 *Frames of relevance*

As the HAC concept aims to bundle a diverse set of actors as different manifestations of a similar underlying anti-establishment sentiment, it is obvious to have a closer look at the ideological background of a channel. Blurry boundaries between certain backgrounds are a major characteristic of a HAC. Therefore, it is helpful, again, to analyze the prevalence and diversity of references to various frames of relevance. Both variables allow us to position a channel in the center respectively the periphery of the HAC. Channels in the center have a large integrative potential by offering a broad range of ideological perspectives; channels at the periphery with a clear topical focus and a distinct ideological background function as beacons to mark the boundaries of the HAC.

2.2.4 *Communicative practices*

Curating by integrating linked content into messages or by forwarding entire Telegram messages from other channels is an essential information-sharing and community-building practice on Telegram (Bader, Müller & Rinsdorf, 2023). In this study, we were especially interested in where the shared content originated from, whether from the account on another platform of the communicator running the channel, within the anti-establishment Telegram sphere, or legacy media. Additionally, we recorded the basic composition of messages from text, media, and curations and their combinations. Furthermore, we noted which channels used epistemic practices, such as references to experts and scientific evidence, and rhetorical strategies, such as the stylization of alleged revelations.

3. Methodology

3.1 Sampling

We collected Telegram messages through Telegram's API using a self-developed crawler. Our ongoing Telegram crawling comprised a pool of 691 German-speaking channels. The composition of the channel pool was based on an extensive mapping of the German HAC Telegram sphere in preparatory qualitative studies, which comprised expert interviews and snowball sampling techniques: In a first step we compared lists of HAC channels provided by four different sources, including think tanks and journalists with a focus on scrutinizing disinformation. In the channels from these consolidated seed lists, we identified frequently cited further channels. In a third step we validated this list in expert interviews to add or remove certain channels (Bader, Müller & Rinsdorf, 2023). For the present study, we selected 40 channels with the highest reach based on users per day from our pool (Table A1) as they represent the types of channels that the average Telegram user is most likely to come across. We compared our selection of channels with the samples by Jost and Dogruel (2023) and Zehring and Domahidi (2023) to make sure we would not be missing any significant channels. We examined a three-month period from April 7th to July 7th, 2023, before the parliamentary

summer break in Germany. The period was long enough to avoid being overshadowed by any single issue and short enough to find structures of thematically similar channels. We collected both original messages and forwards. We will be referring to the entirety of both as “messages” throughout the paper because together they constitute the communication received by a channel’s users. We aimed to obtain sufficiently large subsamples of 60 to 70 messages per channel to properly describe its characteristics. We randomly selected messages for each channel, merged the subsamples from each channel, and randomized the order of the messages in the combined sample. Our human coders coded $N = 2.669$ Telegram messages.

By our definition, a Telegram message comprises up to three elements: text, directly embedded media, and curation. We recorded each embedded medium of different types in a message, such as a combination of photos and videos. In contrast to directly embedded media, a curation always refers to hyperlinked content, be it from mass media, social media platforms, or Telegram.

The messages were randomly assigned to seven human coders who underwent three rounds of comprehensive pre-testing with codebook adjustments and follow-up training sessions after an initial coder training session. We calculated intercoder agreements (IA) using Holsti’s method, Fleiss’ kappa (κ) for variables with several coding options, and, alternatively, Brennan Prediger’s kappa (κ) for 0/1-coded variables (see below), which fits our data involving many single attributes being very rare (Jost & Dogruel, 2023). IA and κ clearly exceeded the critical values for coding (Table A2).

3.2 Variables

Actor identities: Appeals to features of populism (de Vreese et al., 2018) were coded alongside other expressions of self-identification and othering groups of people. As with most of the following categories, each individual potential characteristic was 0/1-coded.

Current political topics: We generated a list of potentially relevant, specific *current political topics* from previous studies of German-speaking HAC Telegram channels (Bader, Müller & Rinsdorf, 2023; Jost & Dogruel, 2023; Zehring & Domahidi, 2023) and from monitoring current public debates in online news outlets. Pre-testing showed only four of those themes were prevalent enough throughout the Telegram channels studied to be recorded separately: Russia’s war in Ukraine, COVID-19, refuge and migration, and climate change. We subsumed all other issues under topic areas at a higher aggregate level such as domestic politics or foreign affairs. Coders could note several current political topics per message so that statistically each of the themes was handled as a 0/1 coding.

Frames of relevance: The same is true for *frames of relevance*, such as conspiracy theories, esotericism, and nationalism. Again, we developed a list of potentially relevant themes from previous research (see above), especially our own qualitative preparatory study (Bader, Müller & Rinsdorf, 2023). If we found the frequency of single frames of relevance to be low, we summarized them under larger categories during analysis.

Communicative practices: The *formal composition* of Telegram messages was recorded by 0/1 coding the presence of each of the following elements: text, embedded media, and curation, i.e. the integration of highlighted, hyperlinked content. The categories for the origins of *curations* were other actors from the anti-establishment public sphere, independent of platform or outlet, legacy media, and self-promotion of content (mostly) published outside Telegram. Additionally, we recorded appeals to *recruiting* for a movement, specifically, *mobilizing* participants for online or offline activities, such as protests, and *advertising*. Our main categories of stylistic and rhetorical means were *message content and presentation* with the stylization of revelations and personalization; as well as epistemic *arguments* referring to alleged pieces of evidence, such as experts, studies, and supporting documents.

3.3 Formation of actor types

Considering channels' activities as four-dimensional communicative figurations enables different approaches to channel-type formation. Here we decided to consider the thematic structure of a channel's postings as the starting point of this process. The thematic structure emerges from prevalence and attention diversity of the two thematic dimensions of current political topics and issues as well as frames of reference. Previous research shows that references to both political issues and ideological backgrounds are well suited to characterize similar channels and match with results from community detection procedures such as network analysis (Zehring & Domahidi, 2023). Furthermore, it seems plausible that a channel's thematic structure is associated with its owner's actor identities and communicative practices. For example, individuals with a narrow thematic focus likely will be more engaged in direct user interaction than channels primarily aiming at the provision of a widespread set of news, and semi-professional creators will probably curate their own content more often than activist-motivated individuals.

To estimate the prevalence of current political topics and frames of relevance in each channel's content, we calculated the proportion of messages that reference at least one theme from each category. We generated a 0/1 coding per post and each thematic category (current topics and frames of relevance), counting multiple mentions of themes from the same category only once per message. Attention diversity of themes indicates how narrow or wide the frequencies of references are distributed across various political topics and frames of relevance (Boydston et al., 2014). We used Shannon's H from the R package *tabula* (Frerebeau, 2023) to measure the attention diversity between themes in both categories. The sensitivity of Shannon's H at both high and low levels of diversity (Boydston et al., 2014) fits well with our selection of actors, which presumably ranges from channels focusing on only one or two themes to channels integrating various themes. The calculations were based on the frequency of references to each theme in both categories in a channel during the entire investigation period.

As the 40 channels in our study did not make up a sufficiently large sample for a purely statistical pattern recognition procedure (e.g., cluster analysis), we inter-

preted the quantitative results from our content analysis in a qualitative procedure. During this iterative process, the two steps of finding distinctive combinations of measures and preliminarily assigning channels to homogeneous and distinguishable groups iteratively informed each other.

- First, we identified three informative combinations of metrics of channels' thematic structure. We plotted prevalence against attention diversity for political topics and frames of relevance, and we plotted the prevalence of both thematic categories against each other.
- Second, we formed preliminary channel types with similar thematic patterns by (a) identifying groups of channels whose metrics stand out from the rest and (b) structuring the remaining majority of channels. To aid the search for patterns, we calculated the median for each measure.
- Third, we checked whether the results in the actor identity and communicative practices dimensions fit into the provisional theme-based group formation or rather suggest a different typification. We found the variances in these attributes within and between theme-based types are plausible; therefore, we did not overhaul our preliminary formation of types in general. However, we used these variables to inform type assignments of channels at the border between two groups and to differentiate one group of actors with a specific focus on interactions with users.

In every type we can identify cases at the core of the type, representing the type in its central dimensions, in particular regarding its thematic structure. But in every type, we have also peripheral channels with an acceptable, but not perfect match to the central dimension, on the boarder to another type. While describing our typology we refer to examples of core and peripheral cases. Furthermore, we want to stress that we create our typology based on their communicative practices as far as they are represented in a channel's output. We did not take into consideration the organizational structures behind a channel. Hence, even a channel run by a single person could be classified as news provider, if we identify patterns in its communicative practice which hint towards a news logic in the analyzed content.

4. Results

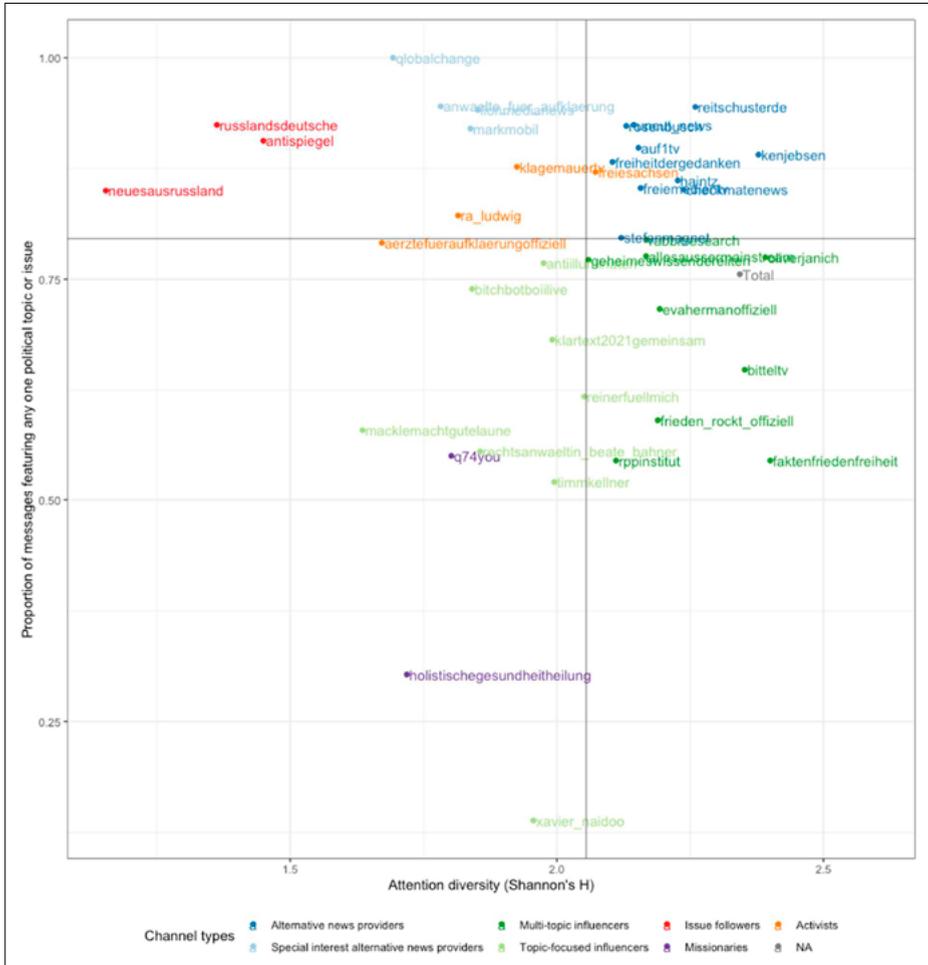
4.1 Prevalence and attention diversity of political topics and frames of relevance

Prevalence and attention diversity of current political topics and issues as well as prevalence of frames of relevance were most informative in forming theme-based actor types. Attention diversity of frames of relevance helps confirm some types but has proved to be less instructive for structuring most channels.¹ This is partly due to the lower average frequency of references to a frame of relevance in com-

1 A graph of the prevalence of frames of relevance in each channel's messages plotted against the corresponding attention diversity scores is provided in the online supplemental material (see Figure A1).

references to at least one frame of relevance per message. We also observed, particularly at *holistischesundheitheilung*, a relatively low frequency of references to at least one current political topic (Figure 1) and a low corresponding issue of attention diversity (Figure 2). Simultaneously, attention diversity of the frames of relevance was low (Figure A1). Thus, this group of channels primarily focuses on disseminating a single set of ideological beliefs (*narrowly focused, high prevalence of frames of relevance*).

Figure 2. Prevalence against attention diversity of current political topics and issues by channel



Notes. N = 2,669 messages. The higher Shannon's H' the less narrow attention is distributed between topics. Medians of both measures are added to the plot.

Channels that frequently devote attention to a single or at most two political topics (Figures 2 and 3) without addressing frames of relevance (Figures 1 and A1)

have a quasi-inverted thematic structure in comparison. This pattern of *issue-focused, high prevalence of political topics* also sets them apart from most channels. In this study, the issue frequently addressed by *neuesausrussland*, *rusland-deutsche*, and *antispiegel* was Russia's war on Ukraine on two of the three channels, along with foreign news. The war was characterized by permanent current developments, such as an attempted coup by the Wagner Group in Russia, which can be reported and commented on continuously.

Prevalence and attention diversity scores of the remaining 35 channels were closer. Therefore, the corresponding theme-based channel types were somewhat more difficult to distinguish. Nevertheless, we propose a 2×2 structure for them, each with two groups of channels that are similar in the prevalence of current political topics and issues on the one hand but different in attention diversity in this category on the other hand. Similar to the channels closely following the Russia-Ukraine War, two other groups of channels have a high prevalence of current political topics (Figures 1 and 2). However, they differ in the diversity of the attention devoted to them: The first group integrated a relatively broad variety of topics (Figure 2), while the second group falls roughly between the first group and single-issue-focused channels (Figure 2). It is characterized by a *narrowly focused, high prevalence of political topics* (Figure 3). In contrast to primarily single-issue-following channels, the prevalence of frames of relevance varied from medium to high for both groups (Figure 1). Furthermore, those diverse in terms of current topics often also tended towards relatively high attention diversity of ideological beliefs (Figure A1), resulting in the thematic pattern of *diverse, high-prevalence integration of political topics with frames of relevance*.

In contrast to latter channels, the last pair of channel groups generally have a lower prevalence of current political topics and issues (Figure 1). Both groups can be distinguished by the diversity of attention devoted to the themes in this category, with one resembling the more integrative pattern (i.e., *diverse, low prevalence of political topics*) and the other being more narrowly focused (i.e., *narrowly focused, low prevalence of political topics*), although not as narrowly as the single-issue-following type of channels (Figure 2).² The most prominent topics in latter channels, such as COVID-19 and domestic affairs, are less driven by abundant current developments. For both channel types from the last pair, the prevalence of frames of relevance ranged from relatively low to medium (Figure 1).

In summary, the analysis of thematic structures enabled us to differentiate between six groups of channels. Our results for the actor identity and the communicative practices dimensions generally aligned well with this initial structure and provided us with additional insights into the communicative figuration of channels in each group. However, we found one exception: a group of channels with a specific focus on appeals to action, which we assigned to their own group (see Table A1 for an overview of the grouping of channels by thematic structure and

2 The channel *xavier_naidoo*, with its low frequency of explicit references to both current political topics and frames of relevance, appears as an outlier in our data (Figures 1 and 2). Nevertheless, because it is most similar to the low-prevalence, narrowly topic-focused channels, we assigned it to this type.

their final group assignments). The final result is a structure with seven types, the properties of which are presented in more detail below:

- 1) *Alternative news providers* include ten member channels (*auf1tv*, *stefanmagnet*, *freiemedientv*, *rosenbusch*, *freiheitdergedanken*, *uncut_news*, *reitschusterde*, *checkmatenews*, *haintz*, *kenjebesen*) that cover a diverse body of current topics and explicitly link these topics to a broad range of frames of relevance. It is the second largest type in our sample. *stefanmagnet* represents this type by combining the broad variety of topics and frames of relevance with a clear elite-oriented populism, positioning itself as an investigative researcher and curating other alternative media sources.
- 2) *Special interest alternative news providers* mainly cover current political and societal topics but are more focused on one particular topic. They also contextualized their news explicitly against the background of specific frames of relevance. The four channels of this type were *lionmedianews*, *globalchange*, *anwaelte_fuer_aufklaerung* and *markmobil*. For example, *markmobil* at the core of this type mostly reports on foreign affairs referring to conspiracy theories with an obvious elite populism.
- 3) The *multi-topic influencers* represent a group of actors who cover comprehensive topics beyond politics. Provided that, they link news to frames of relevance, they are nearly as diverse as type 1, but links to frames are not as prevalent. In most of these nine channels (*rabbitresearch*, *geheimesswendereliten*, *evahermanoffiziell*, *frieden_rockt_offiziell*, *faktenfriedenfreiheit*, *rppinstitut*, *allesaussermainstream*, *oliverjanich*, *bitteltv*) the personal brand of the influencer plays an important role. Eva Herman represents this type by utilizing her reputation as former news anchor to contextualize current news topics towards the background of conspiracy theory, and curating news pieces from established media sources in the same way.
- 4) The *topic-focused influencers* represent the second type of influencer in the sample. Similar to type 3 and compared to *alternative news providers*, they are less likely to cover political topics but are much more focused on a certain type of topic. If they refer to frames of relevance, which is less likely than in other types, they refer to a broad range of different frames. Eight channels were assigned to this type: *klartext2021gemeinsam*, *macklemachtgutelaune*, *bitchbot-boilive*, *rechtsanwaeltin_beate_bahner*, *antiilluminaten*, *timmkellner*, *reinerfuellmich*, *xavier_naidoo*. *rechtsanwaeltin_beate_bahner* at the core of this type for instance covers mainly COVID related topics and pretends to reveal scandalous government activities.
- 5) The three channels of *issue followers* (*ruslandsdeutsche*, *antispiegel*, *neuesaus-russland*) are mainly focused on one topic: the Russian assault on Ukraine. Explicit links to certain frames of relevance are rare but refer to anti-Western narratives. This combination is especially pronounced in the case of *neuesausrussland*.
- 6) The two channels of *missionaries* (*holistischesgesundheitsheilung*, *q74you*) mainly focus on a dominant topic, which is not a political issue in the narrow sense.

In contrast to type 5, both channels explicitly refer to certain frames of relevance: *q74you* explicitly to QAnon ideology, *holistischegesundheitsheilung* to an esoteric frame.

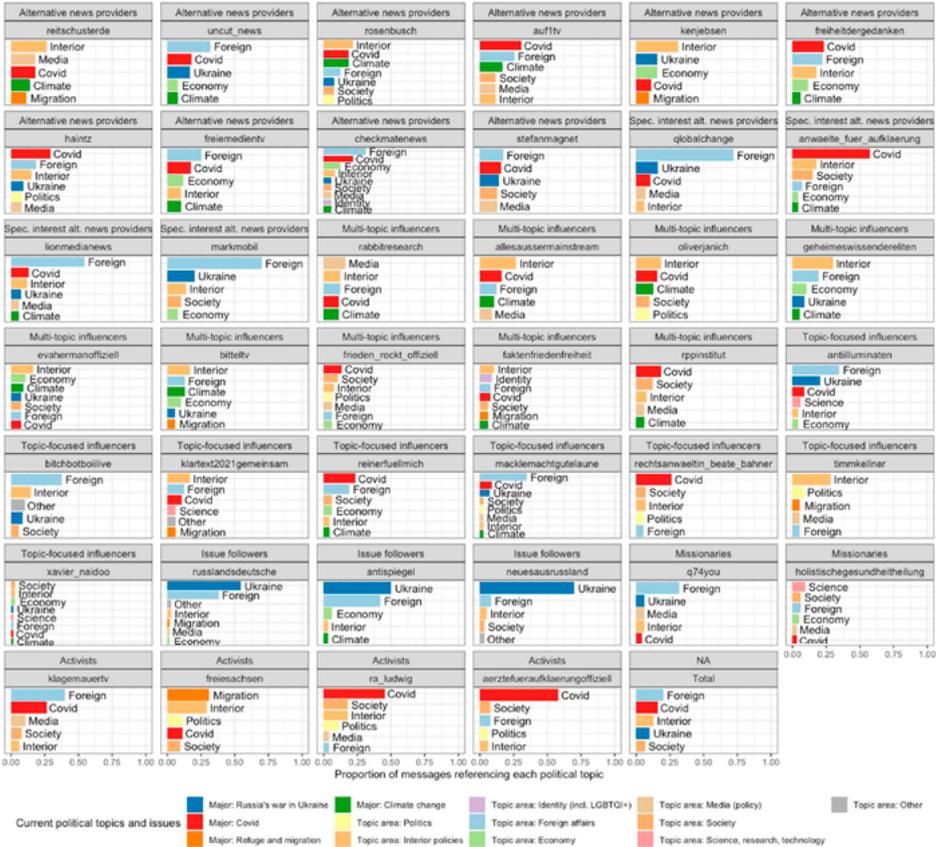
- 7) The *activists* were the only type in our sample that was not built based on their coverage of topics and references to frames of relevance. What characterizes these four channels (*ra_ludwig*, *klagemauertv*, *aerztefueraufklaerungoffiziell*, *freiesachsen*) is their relatively high engagement in appeals to organizing a movement: self-identification, recruiting, and mobilization (see Figures 5 and A2 and Table A6). This type is perfectly represented by *freiesachsen*. The channel covers refugee topics in an obviously racist framing, using populist communication strategies.

4.2 Actor identities

HAC channels distinguish themselves from relevant actors in the so-called dominant public sphere and identify themselves with particular societal groups. Regarding speech acts of othering, we found the “usual suspects” in our sample with international political elites (in 13% of the total of messages), the federal government of Germany (8%), and the media (7%) as most frequent mentions. Using a combined view of othering and self-identifying speech acts, we reconstructed different types of populist communication (Vreese et al., 2018).

Our channels differed significantly in their use of populist appeals. Both types of *alternative news providers* follow the same strategy: They tend to blame elites for any perceived societal problem with most of them referring to at least one group of elites in at least 30% of messages. We also observed interesting similarities between *activists* and *issue followers*. Both often hint at full populism, blaming elites and simultaneously referring to the “real” people, which is consistent with the efforts of these channels to motivate people to act (see below). In the other three types, *missionaries* and both groups of *influencers*, speech acts of othering or self-identification and hence populist communication were less prevalent (Table 2).

Figure 3. Relative frequencies of the five most frequent current political topics and issues by channel



Notes. Percentages relative to *n* messages per channel. Multiple topics could be coded per message. Channels within each type are arranged by the proportion of messages featuring any political topic.

Examining our channel types, we obtain a slightly different picture. *Alternative news providers* and *multi-topic influencers* both cover an extensive range of topics at an at least moderate, constant level of attention. However, among the four types focused on a particular topic, we found insightful differences: while the *issue followers* mainly cover the war in Ukraine in 50 to 70 per cent of their messages, three out of four *special interest alternative news providers* refer to foreign affairs more generally in 54 to 70 per cent of messages – with the exception of *anwaelte_fuer_aufklaerung* with its focus on COVID. Alongside interior politics, either foreign affairs or COVID also is the most prominent topic in *topic-focused influencers* (Figure 3 and Table A3).

4.4 Frames of relevance

HAC spheres are constructed along alternative world views, but the percentage of posts explicitly mentioning a certain frame of relevance in our sample is quite low (Table 3). Conspiracy theories (in 7% of the total of messages), anti-science (5%) and anti-vaccination narratives (4%) are the most common frames of relevance overall. Like current topics and issues, the sets of frames of relevance referred to vary a lot between channels.

Despite the generally low prevalence of frames of relevance, we found interesting patterns between different types of channels. Both types of *alternative news providers* tend to mention a broader range of frames frequently, reflecting their ambition to provide users with diverse viewpoints, and with conspiracy theories functioning as an overarching theme in most cases. Among the other five types, the base case is a low level of explicit contextualization of current events towards the background of a frame of relevance, which was also true for *issue followers*. Two types are different, however: *Missionaries* have the most frequent references to a single frame of relevance (*q74you* referring to conspiracy theories in 42% of its messages, *holistischesundheitheilung* to esotericism in 39%), whereas *activists* refer to different types of frames of relevance relatively frequently. This plausible strategy attracts people from different ideological backgrounds (Table 3).

Table 3. Frequencies of frames of relevance by channel

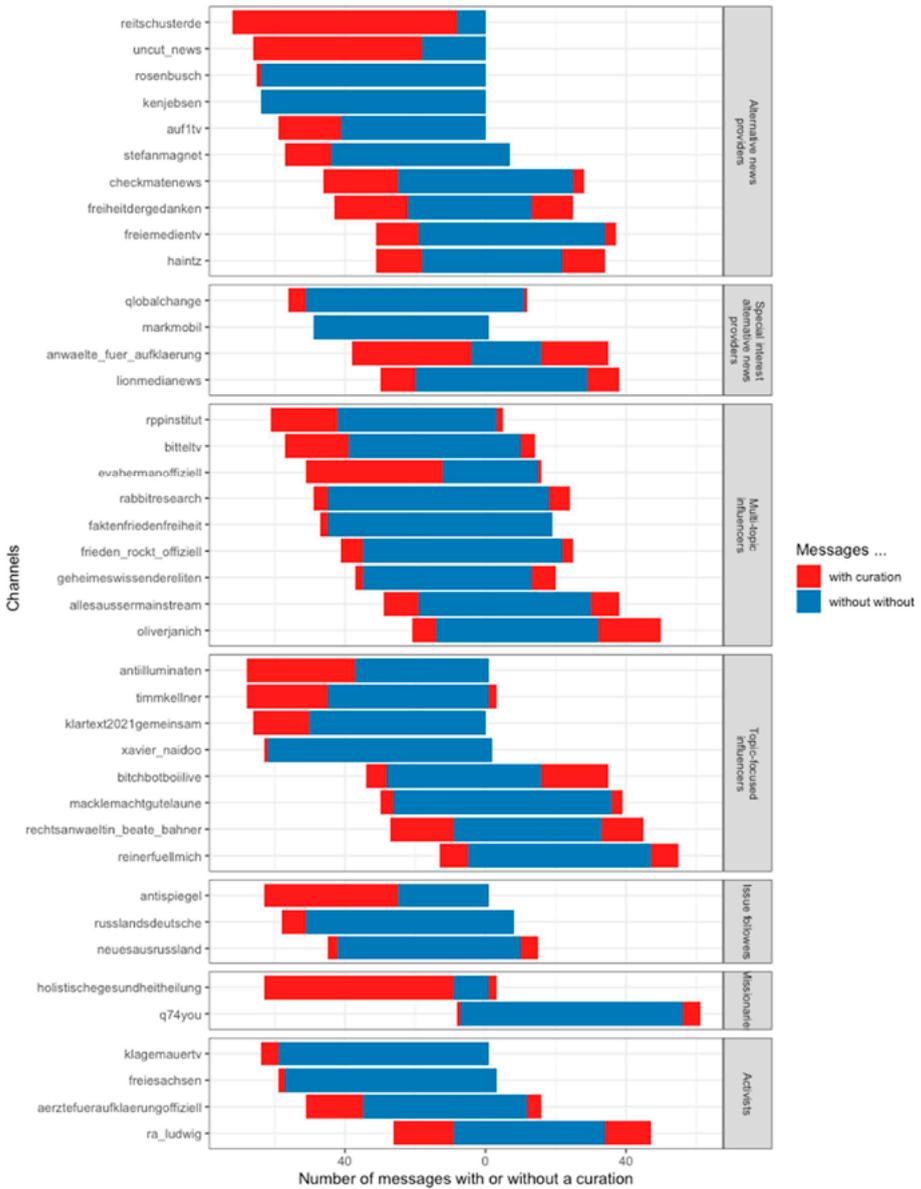
Frequencies of frames of relevance by channel										
Channel	Conspiracy (incl. Qanon)	Esotericism	Anti- vaccination	Anti-science	Covid denial	Nationalism	Racism	Anti- modernism	Other	n
Alternative news providers										
kenjbsben	5% (3)	3% (2)	3% (2)	2% (1)	2% (1)	2% (1)	3% (2)	6% (4)	2% (1)	64
haitez	2% (1)	5% (3)	9% (6)	3% (2)	2% (1)	2% (1)	0% (0)	0% (0)	0% (0)	65
checkmatenews	11% (8)	4% (3)	15% (11)	3% (2)	5% (4)	1% (1)	1% (1)	4% (3)	1% (1)	74
reitschusterde	0% (0)	0% (0)	1% (1)	2% (1)	1% (1)	0% (0)	4% (3)	4% (3)	0% (0)	72
uncult_new	9% (6)	2% (1)	9% (6)	14% (9)	2% (1)	3% (2)	2% (1)	0% (0)	0% (0)	66
freiheldergedanken	9% (6)	1% (1)	10% (7)	4% (3)	4% (3)	1% (1)	3% (2)	3% (2)	1% (1)	68
rosenbusch	5% (3)	2% (1)	3% (2)	11% (7)	6% (4)	0% (0)	0% (0)	2% (1)	0% (0)	65
freimedientv	10% (7)	6% (4)	9% (6)	6% (4)	4% (3)	0% (0)	0% (0)	1% (1)	3% (2)	68
stefanmagnet	28% (18)	0% (0)	8% (5)	9% (6)	6% (4)	3% (2)	5% (3)	6% (4)	0% (0)	64
auf1tv	10% (6)	0% (0)	7% (4)	17% (10)	7% (4)	2% (1)	2% (1)	7% (4)	0% (0)	59
Special interest alt. news providers										
markmobl	6% (3)	0% (0)	0% (0)	4% (2)	0% (0)	0% (0)	0% (0)	6% (3)	2% (1)	50
anwaerter_fuer_aufklaerung	5% (4)	0% (0)	14% (10)	7% (5)	7% (5)	1% (1)	1% (1)	3% (2)	0% (0)	73
qlobalchange	9% (6)	0% (0)	1% (1)	1% (1)	3% (2)	1% (1)	0% (0)	1% (1)	16% (11)	68
lonmediane	16% (11)	0% (0)	3% (2)	0% (0)	3% (2)	0% (0)	1% (1)	1% (1)	1% (1)	68
Multi-topic influencers										
bittevl	0% (0)	0% (0)	3% (2)	4% (3)	0% (0)	0% (0)	0% (0)	0% (0)	1% (1)	71
oliverjanich	1% (1)	4% (3)	3% (2)	6% (4)	3% (2)	0% (0)	0% (0)	3% (2)	0% (0)	71
alesaussermainstream	1% (1)	1% (1)	4% (3)	4% (3)	6% (4)	1% (1)	0% (0)	1% (1)	0% (0)	67
rpnsttut	2% (1)	0% (0)	2% (1)	5% (3)	0% (0)	0% (0)	0% (0)	3% (2)	0% (0)	66
faktenriedenfreiheit	6% (4)	5% (3)	2% (1)	6% (4)	2% (1)	3% (2)	2% (1)	0% (0)	0% (0)	66
frieden_rockt_offiziell	6% (4)	18% (12)	5% (3)	3% (2)	3% (2)	0% (0)	0% (0)	6% (4)	2% (1)	66
evahermandoffiziell	4% (3)	3% (2)	0% (0)	3% (2)	0% (0)	1% (1)	0% (0)	1% (1)	0% (0)	67
geheimswissenderellen	5% (3)	11% (6)	0% (0)	4% (2)	0% (0)	0% (0)	4% (2)	4% (2)	0% (0)	57
rabbitresearch	7% (5)	1% (1)	5% (4)	3% (2)	3% (2)	0% (0)	1% (1)	5% (4)	0% (0)	73
Topic-focused influencers										
xavier_naidoo	2% (1)	8% (5)	0% (0)	2% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	65
reinerfuellmich	9% (6)	4% (3)	7% (5)	6% (4)	4% (3)	0% (0)	0% (0)	3% (2)	3% (2)	68
timmkeller	4% (3)	0% (0)	0% (0)	1% (1)	1% (1)	1% (1)	4% (3)	0% (0)	0% (0)	71
antilluminaten	9% (6)	4% (3)	3% (2)	3% (2)	3% (2)	1% (1)	0% (0)	1% (1)	7% (5)	69
rechtsanwaerter_beate_bahner	4% (3)	0% (0)	4% (3)	7% (5)	3% (2)	0% (0)	0% (0)	1% (1)	0% (0)	72
blichtbotbolive	12% (8)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	1% (1)	69
macklernachrichtelebune	6% (4)	1% (1)	6% (4)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	3% (2)	69
klartext2021gemeinsam	9% (6)	3% (2)	5% (3)	2% (1)	2% (1)	2% (1)	3% (2)	0% (0)	3% (2)	66
Issue followers										
neuesausrussland	5% (3)	0% (0)	0% (0)	2% (1)	0% (0)	0% (0)	0% (0)	0% (0)	5% (3)	60
antispiegel	2% (1)	0% (0)	0% (0)	2% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	64
russlandsdeutsche	8% (5)	0% (0)	2% (1)	2% (1)	0% (0)	0% (0)	0% (0)	0% (0)	5% (3)	66
Missionaries										
q74you	42% (29)	0% (0)	0% (0)	0% (0)	3% (2)	0% (0)	0% (0)	0% (0)	1% (1)	69
holistischesgesundheitsheilung	2% (1)	39% (26)	0% (0)	3% (2)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	66
Activists										
freiesachsen	0% (0)	0% (0)	2% (1)	2% (1)	2% (1)	5% (3)	27% (17)	0% (0)	3% (2)	62
klagemauertv	15% (10)	2% (1)	11% (7)	11% (7)	6% (4)	0% (0)	2% (1)	2% (1)	0% (0)	65
ra_ludwig	4% (3)	0% (0)	7% (5)	1% (1)	8% (6)	1% (1)	1% (1)	0% (0)	0% (0)	73
aerztfuehruaufklaerungoffiziell	7% (5)	7% (5)	4% (3)	15% (10)	10% (7)	0% (0)	0% (0)	0% (0)	0% (0)	67
Full sample	7% (198)	3% (89)	4% (113)	5% (121)	3% (75)	1% (22)	2% (43)	2% (50)	2% (41)	2.669

Notes. N = 2,669 messages. Percentages relative to n messages per channel. Absolute frequencies in brackets. Multiple frames of relevance could be coded per message.

4.5 Communicative practices

Considering editorial practices, we analyzed whether and to what extent they create genuine content or curate pieces created by other entities. This study distinguished between the proportion of posts containing curations and their origins (Figures 4 & 5, Table A4). The curation of content created by other actors within the anti-establishment media sphere is vital, followed by channels promoting content hosted on other platforms. However, we observed only a small amount of curated content originated from legacy media sources. This observation indicates that curating practices have cohesive and exclusive effects on the anti-establishment media sphere.

Figure 4. Absolute frequencies of Telegram messages with or without curations in original messages (drawn to the left) and forwards (drawn to the right) by channel



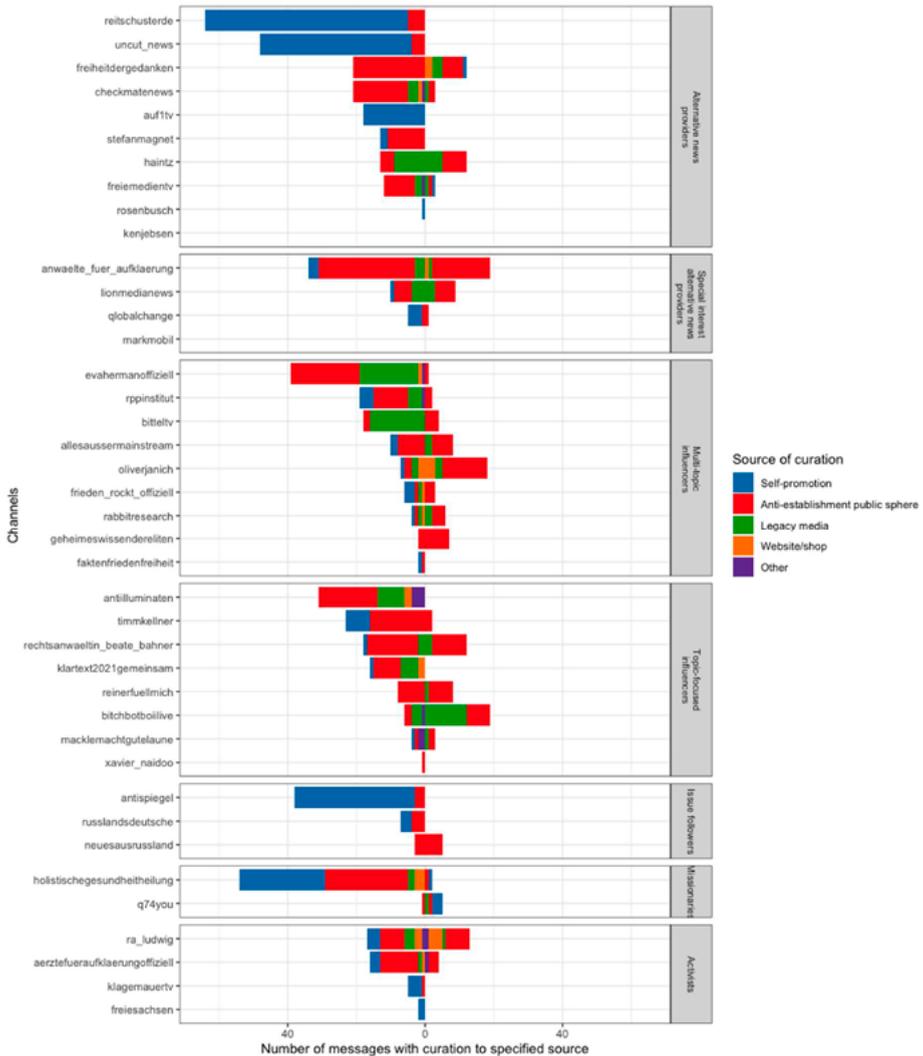
Notes. N = 2,669 messages. Channels arranged within each type are arranged by the total number of original messages.

These findings also support that curating is a relevant and distinguishing practice for HAC Telegram channels. Curation practices were very heterogeneous within the groups of issue followers and missionaries. In both types of channels, we found one channel heavily invested in – mostly self-promoting – curations combined with text (60% of messages in *antispiegel*, 86% of message in *holistischegesundheitsheilung*), while other channels from these types hardly used any form of curation (see Figure 8).

Differences were noticed within the other four types of channels. The prevalence of curation as an editorial practice is most likely found within *special interest alternative news providers*, followed by *alternative news providers* and *influencers* in our typology, with a maximum percentage of curated posts around 90%. These types of actors increase their channel quality by commenting on and/or sharing content created by someone else. Referring to other sources is more likely in a context that (pretends to) act professionally in an alternative news-oriented media sphere. The efficacy increases when a channel covers a clearly defined topic with a manageable number of other actors focusing on the same topic.

Beyond the prevalence of curation, curated sources differ only slightly from channel to channel. For interpretation purposes, we only considered channels that curated at medium or high levels of prevalence. Even within this subsample, curating sources in the anti-establishment media sphere is by default. However, these two exceptions are insightful. For *alternative news providers*, curating their own content published on other platforms is the dominant practice. These professional actors use Telegram as a platform for content dissemination and audience creation. Although we find the curation of legacy media sources in all types of this subsample, it plays a slightly more important role among multi-topic influencers. In particular, *eva_bermann_offiziell*, as a former news anchor, applies this strategy to foster her brand as a trustworthy explainer. In comparison to other multi-topic influencers, she is generally curating content to a high amount (66% of all posts). And nearly 40 percent of these posts are referring to legacy media.

Figure 5. Absolute frequencies of types of sources of curations in original messages (drawn to the left) and forwards (drawn to the right) by channel



Notes. $N = 2,669$ messages. Channels within each type are arranged by the total number of curations in original messages.

Our channels also differ significantly in their efforts to activate users' political action and participation. Most channels in our sample did not try to recruit users for online or real-life activism, follow other online outlets, or pay for certain goods and services. However, two exceptions to this rule are *activists* and *missionaries*. They aim to convince people to take action in all four dimensions mentioned above, linking Telegram with real-world activities (see Table 4).

Table 4. Frequencies of interactions by channel

<i>Frequencies of interactions by channel</i>					
Channel	Recruiting movement	Recruiting online	Mobilising	Advertising	<i>n</i>
Alternative news providers					
kenjebesen	3% (2)	6% (4)	2% (1)	16% (10)	64
haintz	5% (3)	2% (1)	6% (4)	8% (5)	65
checkmatenews	1% (1)	4% (3)	1% (1)	11% (8)	74
reitschusterde	0% (0)	1% (1)	0% (0)	3% (2)	72
uncut_news	2% (1)	3% (2)	2% (1)	0% (0)	66
freiheitdergedanken	0% (0)	16% (11)	0% (0)	7% (5)	68
rosenbusch	0% (0)	0% (0)	0% (0)	0% (0)	65
freiemedientv	3% (2)	6% (4)	4% (3)	6% (4)	68
stefanmagnet	6% (4)	13% (8)	3% (2)	8% (5)	64
auf1tv	8% (5)	20% (12)	3% (2)	24% (14)	59
Special interest alt. news providers					
markmobil	0% (0)	0% (0)	0% (0)	0% (0)	50
anwaelte_fuer_aufklaerung	7% (5)	12% (9)	3% (2)	12% (9)	73
globalchange	0% (0)	1% (1)	0% (0)	0% (0)	68
lionmedianews	0% (0)	6% (4)	1% (1)	4% (3)	68
Multi-topic influencers					
bitteltv	0% (0)	20% (14)	7% (5)	4% (3)	71
oliverjanich	4% (3)	7% (5)	4% (3)	14% (10)	71
allesaussermainstream	7% (5)	4% (3)	4% (3)	0% (0)	67
rpintitut	0% (0)	12% (8)	0% (0)	8% (5)	66
faktenfriedenfreiheit	5% (3)	3% (2)	11% (7)	15% (10)	66
frieden_rockt_offiziell	0% (0)	15% (10)	0% (0)	17% (11)	66
evahermanoffiziell	1% (1)	0% (0)	0% (0)	18% (12)	67
geheimsw_issendereliten	0% (0)	25% (14)	2% (1)	11% (6)	57
rabbitresearch	4% (3)	11% (8)	4% (3)	4% (3)	73
Topic-focused influencers					
xavier_naidoo	3% (2)	5% (3)	3% (2)	2% (1)	65
reinerfuellmich	6% (4)	15% (10)	6% (4)	7% (5)	68
timmkellner	3% (2)	3% (2)	3% (2)	7% (5)	71
antilluminaten	0% (0)	20% (14)	0% (0)	38% (26)	69
rechtsanwaeltin_beate_bahner	6% (4)	6% (4)	7% (5)	8% (6)	72
bitchbotboillive	1% (1)	4% (3)	1% (1)	1% (1)	69
macklemachtgutelaune	0% (0)	9% (6)	0% (0)	3% (2)	69
klartext2021gemeinsam	2% (1)	6% (4)	3% (2)	5% (3)	66
Issue followers					
neuesausrussland	3% (2)	3% (2)	0% (0)	0% (0)	60
antispiegel	0% (0)	9% (6)	0% (0)	0% (0)	64
russlandsdeutsche	0% (0)	0% (0)	0% (0)	2% (1)	66
Missionaries					
q74you	6% (4)	9% (6)	1% (1)	0% (0)	69
holistischesgesundheitsheilung	2% (1)	23% (15)	0% (0)	27% (18)	66
Activists					
freiesachsen	35% (22)	16% (10)	24% (15)	21% (13)	62
klagemauertv	11% (7)	18% (12)	43% (28)	2% (1)	65
ra_ludwig	32% (23)	14% (10)	32% (23)	19% (14)	73
aerztefueraufklaerungoffiziell	27% (18)	19% (13)	33% (22)	16% (11)	67
Full sample	5% (129)	9% (244)	5% (144)	9% (232)	2,669

Notes. *N* = 2,669. Percentages relative to *n* messages per channel. Absolute frequencies in brackets. Multiple speech acts could be coded per message.

Finally, we examined the rhetorical means used in our sample along three dimensions. Does a channel apply professional journalistic strategies to gain attention by personalizing topics and/or presenting news as a revelation? Which epistemic practices and authorities do these channels rely on, for example, references to experts or scientific research? Are the channels engaged in interactions with their users?

Table 5. Frequencies of stylistic and rhetorical means by channel

Channel	Journalistic strategies		Interaction		Epistemic strategies					n
	Stylization revelation	Personalisation	Presence author	Sense of community	Insider (knowledge)	Experts	Scientific studies	Evidence (e.g. photos)	Legacy media	
<i>Alternative news providers</i>										
kenjebasn	11% (7)	14% (9)	3% (2)	6% (4)	0% (0)	9% (6)	3% (2)	23% (15)	11% (7)	64
haintz	20% (13)	6% (4)	14% (9)	5% (3)	3% (2)	5% (3)	5% (3)	5% (3)	22% (14)	65
checkmatenews	24% (18)	5% (4)	0% (0)	4% (3)	7% (5)	9% (7)	3% (2)	9% (7)	8% (6)	74
reitschusterde	10% (7)	3% (2)	22% (16)	1% (1)	3% (2)	0% (0)	0% (0)	0% (0)	8% (6)	72
uncut_news	20% (13)	5% (3)	5% (3)	2% (1)	5% (3)	11% (7)	2% (1)	9% (6)	2% (1)	66
freibeitgedanken	19% (13)	4% (3)	3% (2)	3% (2)	4% (3)	12% (8)	4% (3)	7% (5)	9% (6)	68
rosenbusch	14% (9)	2% (1)	20% (13)	3% (2)	0% (0)	3% (2)	5% (3)	14% (9)	26% (17)	65
freiemedientv	22% (15)	6% (4)	3% (2)	9% (6)	6% (4)	10% (7)	4% (3)	1% (1)	15% (10)	68
stefanmagnet	20% (13)	6% (4)	30% (19)	6% (4)	5% (3)	5% (3)	0% (0)	9% (6)	8% (5)	64
auf tiv	12% (7)	0% (0)	12% (7)	3% (2)	7% (4)	12% (7)	0% (0)	5% (3)	2% (1)	59
<i>Special interest alt. news providers</i>										
markimobil	14% (7)	2% (1)	0% (0)	2% (1)	4% (2)	2% (1)	0% (0)	14% (7)	0% (0)	50
anw_aeae_fuer_aufklaerung	15% (11)	5% (4)	21% (15)	4% (3)	7% (5)	15% (11)	3% (2)	4% (3)	8% (6)	73
globchange	24% (16)	9% (6)	0% (0)	3% (2)	10% (7)	1% (1)	0% (0)	12% (8)	6% (4)	68
konmedianews	21% (14)	9% (6)	3% (2)	3% (2)	7% (5)	4% (3)	1% (1)	13% (9)	24% (16)	68
<i>Multi-topic influencers</i>										
bitteliv	7% (5)	6% (4)	10% (7)	3% (2)	1% (1)	3% (2)	3% (2)	4% (3)	15% (11)	71
oliverjanich	7% (5)	6% (4)	10% (7)	4% (3)	0% (0)	7% (5)	3% (2)	7% (5)	10% (7)	71
allesaussermainstream	9% (6)	6% (4)	21% (14)	7% (5)	3% (2)	10% (7)	4% (3)	3% (2)	4% (3)	67
rppinstitut	5% (3)	0% (0)	8% (5)	6% (4)	0% (0)	6% (4)	6% (4)	8% (5)	15% (10)	66
faktenriedenfreiheit	11% (7)	2% (1)	17% (11)	5% (3)	0% (0)	5% (3)	6% (4)	5% (3)	3% (2)	66
frieden_rock_offiziell	9% (6)	5% (3)	14% (9)	15% (10)	2% (1)	2% (1)	3% (2)	5% (3)	6% (4)	66
evaherrmannoffiziell	10% (7)	1% (1)	9% (6)	1% (1)	0% (0)	6% (4)	4% (3)	3% (2)	22% (15)	67
geheimsw_issenderellen	4% (2)	2% (1)	5% (3)	4% (2)	2% (1)	2% (1)	4% (2)	12% (7)	4% (2)	57
rabbitresearch	15% (11)	5% (4)	5% (4)	4% (3)	1% (1)	1% (1)	4% (3)	18% (13)	16% (12)	73
<i>Topic-focused influencers</i>										
xavier_naidoo	5% (3)	5% (3)	17% (11)	18% (12)	0% (0)	0% (0)	0% (0)	2% (1)	0% (0)	65
reinerfuemlich	15% (10)	6% (4)	18% (12)	3% (2)	1% (1)	6% (4)	1% (1)	7% (5)	4% (3)	68
timmkelner	3% (2)	6% (4)	8% (6)	3% (2)	0% (0)	0% (0)	0% (0)	17% (12)	4% (3)	71
anillurnmaten	16% (11)	0% (0)	1% (1)	1% (1)	7% (5)	4% (3)	3% (2)	12% (8)	7% (5)	69
rechtsanw_aeith_beate_bahner	10% (7)	6% (4)	15% (11)	8% (6)	3% (2)	4% (3)	1% (1)	1% (1)	7% (5)	72
dilchbotbolivie	13% (9)	3% (2)	7% (5)	0% (0)	0% (0)	0% (0)	0% (0)	6% (4)	17% (12)	69
nackelnachtguletsuene	16% (11)	4% (3)	9% (6)	9% (6)	1% (1)	4% (3)	3% (2)	12% (8)	10% (7)	69
klartext2021gemeinsam	24% (16)	6% (4)	8% (5)	2% (1)	6% (4)	2% (1)	2% (1)	24% (16)	11% (7)	66
<i>Issue followers</i>										
neuesausrussland	22% (13)	3% (2)	5% (3)	2% (1)	8% (5)	5% (3)	0% (0)	27% (16)	7% (4)	60
antispiegel	8% (5)	0% (0)	14% (9)	0% (0)	2% (1)	0% (0)	0% (0)	3% (2)	11% (7)	64
russlandsdeutsche	8% (5)	6% (4)	3% (2)	0% (0)	2% (1)	3% (2)	0% (0)	17% (11)	12% (8)	66
<i>Missionaries</i>										
q74you	36% (25)	1% (1)	23% (16)	14% (10)	0% (0)	0% (0)	0% (0)	19% (13)	13% (9)	69
holstischesgesundheitsheilung	17% (11)	0% (0)	8% (5)	8% (5)	2% (1)	17% (11)	11% (7)	3% (2)	2% (1)	66
<i>Activists</i>										
freiesachsen	0% (0)	5% (3)	10% (6)	29% (18)	0% (0)	0% (0)	0% (0)	27% (17)	8% (5)	62
klaegemaertv	45% (29)	8% (5)	0% (0)	9% (6)	6% (4)	8% (5)	0% (0)	11% (7)	0% (0)	65
ra_ldap tv	1% (1)	3% (2)	27% (20)	32% (23)	3% (2)	4% (3)	1% (1)	4% (3)	5% (4)	73
aerztetueraufklaerungoffiziell	4% (3)	0% (0)	10% (7)	22% (15)	1% (1)	9% (6)	1% (1)	6% (4)	1% (1)	67
Full sample	14% (376)	4% (118)	11% (281)	7% (177)	3% (79)	5% (138)	2% (61)	10% (255)	9% (246)	2.669

Notes. N = 2,669. Percentages relative to n messages per channel. Absolute frequencies in brackets. Multiple stylistic and rhetorical means could be coded per message.

All these elements are rare if we look at our complete sample due to the limited length of the posts. Assigning a certain communication style to one of our channels rarely combines these dimensions. Nevertheless, we found instructive hints regarding the typological layer. *Alternative news providers* and *topic-focused influencers* most likely apply a specific rhetorical method. Both types present their news pretending to be investigative journalists or trying to establish a relationship with their users. These strategies are useful for the associated actors to gain credibility by referring to professional standards or the presenters' trustworthiness (Table 5).

5. Discussion

Our findings show that influential Telegram channels in the HAC should not be seen as a monolithic block. Instead, we observed a diverse and dynamic communicative environment, in which we identified a broad spectrum of typical channels serving particular user needs. To a certain extent, HAC channels on Telegram are a functional equivalent to the established media sphere for their users: Starting from alternative news providers covering a broad range of current topics up to activist channels combining populist stances with a high degree of user interaction. This finding corresponds with results by Zehring & Domahidi (2023) and Rothut et al. (2023), who also identified a broad spectrum of channels in certain sub-parts of the HAC.

Our holistic view on the ideological backgrounds of channels and the range of topics covered adds value to the understanding of the HAC on Telegram in comparison to empirical strategies starting from a certain online discourse (e.g., COVID in Zehring and Domahidi, 2023, and Staender et al., 2024) or a certain background (e.g., far-right influencers in Rothut et al., 2023). The respective background is very helpful to understand why actors enter the HAC as creators. It remains also important to maintain a particular brand identity of a channel and to foster the relationship to its regular users. Nevertheless, it does not necessarily explain what topics are currently covered and contextualized by referring to a certain frame of relevance. Theoretical models as well as empirical approaches should reflect these dynamics.

Looking at this environment through the theoretical lens of communicative figurations helped us distinguish typical patterns of actor identities, themes, and practices, which channels focus on: We were able to reconstruct a typology of Telegram channels which links existing typologies based on a broad range of empirical approaches like network analysis (Zehring & Domahidi, 2023), topic modelling (Rothut et al., 2023), or hierarchical cluster analysis (Staender et al., 2024) in a meaningful way. Computational approaches like in Rothut et al. (2023) and Zehring & Domahidi (2023) allow to analyze larger samples than in our manual content analysis. Our findings add value to the results of computational studies, however, as we were able to measure indicators for practices, frames of relevance etc. directly and use the whole of them for creating types instead of describing typologies based on comparing groups (Staender et al. 2024) or topic modeling (Rothut et al., 2023). On the other hand, our approach allowed us to validate qualitative approaches like in Bader, Müller & Rinsdorf (2023) using a significantly larger sample.

Except for a few channels, explicit references to frames of relevance were rare throughout the sample. We presume most users have a clear idea of the ideological backgrounds of different channels, in particular because community seeking can be seen as an important motive to use alternative media (Schwarzenegger 2021). Therefore, updating impressions regularly using cues in certain frames is sufficient. For new users, this seemingly ideology-free positioning makes it more difficult to obtain alternative worldviews. These users may not recognize the channel as fringe. That may create advantages for attracting new users. However, the alternative news providers support this case by explicitly linking their news

with diverse frames of relevance, reflecting their ambition to provide users with a diverse picture from varied viewpoints.

The type of multi-topic influencers shows how important a personal brand can be in the interaction with the audience, as it can be shown for journalism (Molyneux & Holton, 2014). They try to utilize their individual credibility to establish their channels as alternative news sources. These actors adapt to a general shift in the users' understanding of information: In particular in younger age-groups individual creators gain importance as sources, (partly) replacing news organizations (Broersma, 2019). From this perspective, the practice of curating content within the HAC gains importance: It may function as a strategy of creators to present themselves as a trustworthy network and to frame Telegram as a platform for resistant media usage.

The relatively low level of populist communication in our sample was surprising, also in comparison to findings regarding sub-parts of the HAC in Germany like COVID sceptics (Almodt, 2023). Nevertheless, populist communication seems to be a meaningful measure to boost one's (personal) brand image as a watchdog amongst other HAC channels or to motivate people to online and offline activism (Tebaldi & Del Percio, 2024).

Although only a small amount of curated content originated from legacy media sources, the established media sphere remains important as a reference point for creators from the HAC sphere. That may reflect the specific role of legacy media in agenda setting processes in a hybrid media environment in general: Legacy media outlets' capability to steer public attention towards a certain topic may have been weakened, but they still play an important role in sustaining attention (Langer & Gruber, 2020). From time to time, direct links may still help to increase the credibility of a certain news story. More importantly, referring to professional standards of journalism could underline the creator's trustworthiness. Finally, presenting themselves as investigative journalists helps to distinguish themselves from "system media" outlets.

Most of our channels adapt to the dominant logic of Telegram as a visual platform – as all kinds of content creators (have to) do (Meisner & Ledbetter, 2022). Within the boundaries of the Telegram ecosystem, actors create and share various combinations of content that serve the needs of different target groups within the community. The importance of curation as an editorial practice seems to be a second characteristic of HAC Telegram channels, particularly those that position themselves as credible sources of (alternative) news.

Our findings should be interpreted carefully due to certain limitations. First, we highlight the dynamic nature of our research subject. Our samples reflect only a specific period, while reach and interactions of Telegram channels are highly volatile. We identified channels that closely followed Russia's war in Ukraine and related political topics, for example. We presume that this pattern of issue-specific influence is stable and could be observed in other study periods but with changing issue, e.g., COVID and prevention measures during the height of the pandemic.

Second, we limited ourselves to text analysis, although our data indicated the importance of video content. We roughly analyzed the pictures and stills of the embedded videos. Therefore, we strongly recommend efforts to investigate these materials in detail, including the video content on other platforms embedded in

Telegram for audience creation. Additionally, we could only record explicit references to frames of relevance as coding implicit references proved to be unreliable.

Third, our analysis of curation practices was limited to only one main link per Telegram message, which means we may have underrated the importance of this editorial practice. We suggest tracing the origins of shared media in detail in future studies to obtain a more comprehensive picture of curation practices – including interviews with creators running Telegram channels. We hope that the perspective of communicative figurations at Telegram communication developed in this paper can inspire future research of creators, users, and content on the platform.

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References

- Almodt, R. (2023). From criticism to conspiracies: The populist discourse of COVID-19 sceptics in Germany’s Querdenken community on Telegram. *Discourse & Society*, 35(1), 3–26. <https://doi.org/10.1177/09579265231191971>
- Bader, K., Müller, K., & Rinsdorf, L. (2023). Zwischen Staatsskepsis und Verschwörungsmythen. Eine Figurationsanalyse zur kommunikativen Konstruktion von Gegenöffentlichkeiten auf Telegram [Between state scepticism and conspiracy myths. A figuration analysis of communicative construction of counter publics on Telegram]. *Medien & Kommunikationswissenschaft*, 71 (3–4), 248–265 <https://doi.org/10.5771/1615-634X-2023-3-4-248>
- Boydston, A. E., Bevan, S., & Thomas, H. F. (2014). The Importance of attention diversity and how to measure it. *Policy Studies Journal*, 42(2), 173–196. <https://doi.org/10.1111/psj.12055>
- Broersma, M. (2019). Epilogue: Situating journalism in the digital: A plea for studying news flows, users, and materiality. In S.A. Eldridge, & B. Franklin (Eds.), *The Routledge Handbook of Developments in Digital Journalism Studies* (pp. 515–525). Routledge.
- Buehling, K., & Heft, A. (2023). Pandemic protesters on Telegram: How platform affordances and information ecosystems shape digital counterpublics. *Social Media + Society*, 9(3). <https://doi.org/10.1177/20563051231199430>
- de León, E., Makhortykh, M., & Adam, S. (2024). Hyperpartisan, alternative, and conspiracy media users: An anti-establishment portrait. *Political Communication*, 41(6), 877–902. <https://doi.org/10.1080/10584609.2024.2325426>
- de Vreese, C. H., Esser, F., Aalberg, T., Reinemann, C., & Stanyer, J. (2018). Populism as an expression of political communication content and style: A new perspective. *The International Journal of Press/Politics*, 23(4), 423–438. <https://doi.org/10.1177/1940161218790035>
- Frerebeau, N. (2023, November 28). *Package ‘tabula’: Analysis and visualization of archaeological count data* (version 3.0.1) [R package]. <https://CRAN.R-project.org/package=tabula>
- Hepp, A., Breiter, A., & Hasebrink, U. (2018). Rethinking transforming communications: An introduction. In A. Hepp, A. Breiter, & Uwe Hasebrink (Eds.), *Communicative figurations. Transforming communications in times of deep mediatization* (pp. 3–13). Palgrave MacMillan. https://doi.org/10.1007/978-3-319-65584-0_1

- Hohlfeld, R., Bauerfeind, F., Braglia, I., Butt, A., Dietz, A-L., Drexel, D., Fedlmeier, J., Fischer, L., Gandl, V., Glaser, F., Haberzettel, E., Helling, T., Käsbauer, I., Kast, M., Krieger, A., Lächner, A., Malkanova, A., Raab, M-K., Rech, A., Weymar, P. (2021). *Communicating COVID-19 against the backdrop of conspiracy ideologies: How public figures discuss the matter on facebook and telegram*. (Working Paper No. 1/2021). <https://doi.org/10.13140/RG.2.2.36822.78406>
- Holzer, B. (2021). Zwischen Protest und Parodie: Strukturen der “Querdenken“-Kommunikation auf Telegram (und anderswo) [Between protest and parody: Structures of „Querdenken“ communication on Telegram (and elsewhere)]. In: S. Reichardt (Ed.), *Die Misstrauensgemeinschaft der “Querdenker“*. *Die Corona-Proteste aus kultur- und sozialwissenschaftlicher Perspektive* (pp. 125–157). Campus Verlag. <https://doi.org/10.31235/osf.io/9rgtk>
- Jost, P., & Dogruel, L. (2023). Radical mobilization in times of crisis: Use and effects of appeals and populist communication features in Telegram channels. *Social Media + Society*. <https://doi.org/10.1177/20563051231186372>
- Langer, A. I., & Gruber, J. B. (2020). Political agenda setting in the hybrid media system: Why legacy media still matter a great deal. *The International Journal of Press/Politics*, 26(2), 313–340. <https://doi.org/10.1177/1940161220925023>
- Meisner, C., & Ledbetter, A. M. (2022). Participatory branding on social media: The affordances of live streaming for creative labor. *New Media & Society*, 24(5), 1179–1195. <https://doi.org/10.1177/1461444820972392>
- Molyneux, L., & Holton, A. (2014). Branding (health) journalism: Perceptions, practices, and emerging norms. *Digital Journalism*, 3(2), 225–242. <https://doi.org/10.1080/21670811.2014.906927>
- Rothut, S., Schulze, H., Hohner, J., & Rieger, D. (2023). Ambassadors of ideology: A conceptualization and computational investigation of far-right influencers, their networking structures, and communication practices. *New Media & Society*, 26(12), 7120–7147 <https://doi.org/10.1177/14614448231164409>
- Schulze, H., Hohner, J., Greipl, S., Girgnhuber, M., Desta, I. & Rieger, D. (2022). Far-right conspiracy groups on fringe platforms: A longitudinal analysis of radicalization dynamics on Telegram. *Convergence: The International Journal of Research into New Media Technologies*, 28(4), 1103–1126. <https://doi.org/10.1177/13548565221104977>
- Schwarzenegger, C. (2021). Communities of darkness? Users and uses of anti-system alternative media between audience and community. *Media and Communication*, 9(1), 99–109. <https://doi.org/10.17645/mac.v9i1.3418>
- Staender, A., Humprecht, E., & Esser, F. (2024). Alternative media vary between mild distortion and extreme misinformation: Steps toward a typology. *Digital Journalism*, 12(6), 830–850. <https://doi.org/10.1080/21670811.2024.2326928>
- Stier, S., Mangold, F., Scharkow, M., & Breuer, J. (2021). Post post-broadcast democracy? News exposure in the age of online intermediaries. *American Political Science Review*, 116(2), 768–774. <https://doi.org/10.1017/S0003055421001222>
- Tebaldi C, Del Percio A. (2024). Branding the white nation: Platform capitalism and the semiotics of far-right organizing. *Language in Society*. 1–27. <https://doi.org/10.1017/S0047404524001040>
- Wimmer, J. (2014). Öffentlichkeit, Gegenöffentlichkeiten und Medienpartizipation im Zeitalter des Internets [Publics, counter publics, and media participation in times of the internet]. In: C. Schmitt & A. Vonderau (Eds.), *Transnationalität und Öffentlichkeit. Interdisziplinäre Perspektiven* (pp. 285–308). transcript. <https://doi.org/10.14361/transcript.9783839421543.285>

Table A1. Typification of Telegram channels

<i>Typification of Telegram channels</i>		
Channels arranged by thematic structure	<i>n(channel)</i>	Type
Diverse, high-prevalence integration of political topics with frames of relevance		
kenjebesen	64	Alternative news providers
haintz	65	Alternative news providers
checkmatenews	74	Alternative news providers
reitschusterde	72	Alternative news providers
uncut_news	66	Alternative news providers
freiheitdergedanken	68	Alternative news providers
rosenbusch	65	Alternative news providers
freiemedientv	68	Alternative news providers
stefanmagnet	64	Alternative news providers
auf1tv	59	Alternative news providers
freiesachsen	62	Activists
Narrowly focused, high prevalence of political topics		
markmobil	50	Special interest alternative news providers
anwaelte_fuer_aufklaerung	73	Special interest alternative news providers
qlobalchange	68	Special interest alternative news providers
lionmedianews	68	Special interest alternative news providers
klagemauertv	65	Activists
ra_ludwig	73	Activists
Diverse, low prevalence of political topics		
bittelv	71	Multi-topic influencers
oliverjanich	71	Multi-topic influencers
allesaussermainstream	67	Multi-topic influencers
rppinstitut	66	Multi-topic influencers
faktenfriedenfreiheit	66	Multi-topic influencers
frieden_rockt_offiziell	66	Multi-topic influencers
evahermanoffiziell	67	Multi-topic influencers
geheimwissendereliten	57	Multi-topic influencers
rabbitresearch	73	Multi-topic influencers
Narrowly focused, low prevalence of political topics		
xavier_naidoo	65	Topic-focused influencers
reinerfuellmich	68	Topic-focused influencers
timmkellner	71	Topic-focused influencers
antiilluminaten	69	Topic-focused influencers
rechtsanwaeltin_beate_bahner	72	Topic-focused influencers
bitchbotboillive	69	Topic-focused influencers
macklemachtgutelaune	69	Topic-focused influencers
klartext2021gemeinsam	66	Topic-focused influencers
aerztfueraufklaerungoffiziell	67	Activists
Issue-focused, high prevalence of political topics		
neuesaurussland	60	Issue followers
antispiegel	64	Issue followers
russlandsdeutsche	66	Issue followers
Narrowly focused, high prevalence of frames of relevance		
q74you	69	Missionaries
holistischesgesundheitsheilung	66	Missionaries
Full sample	2,669	

Note. Changes of single channel's group allocations by accounting for variables. Beyond thematic structure highlighted in bold.

Table A2. Reliability scores

<i>Reliability scores</i>					
Variable	No. of messages	No. of categories	Holsti's CR	Brennan and Prediger's κ	Fleiss' κ
Message composition: text, embedded media, curation, or combination	79	5	0,97		0,94
Embedded media					
Any medium	79	2	0,98	0,97	
Any type of still image (incl. those specified below)	79	2	0,99	0,97	
Photograph	79	2	0,98	0,96	
Photograph + text	79	2	0,96	0,91	
Screenshot	79	2	0,97	0,93	
Video	79	2	0,99	0,97	
Audio	79	2	1,00	1,00	
Document (e.g. .doc, .pdf)	79	2	0,99	0,99	
Curations: Sources	19	4	0,76		0,63
Current political topics and issues					
Major: Russia's war in Ukraine	79	2	0,98	0,96	
Major: Covid	79	2	0,94	0,86	
Major: Refuge and migration	79	2	0,99	0,99	
Major: Climate change	79	2	0,96	0,92	
Topic area: Politics	79	2	0,94	0,85	
Topic area: Interior policies	79	2	0,86	0,70	
Topic area: Identity (incl. LGBTQI+)	79	2	0,99	0,99	
Topic area: Foreign affairs	79	2	0,91	0,80	
Topic area: Economy	79	2	0,94	0,85	
Topic area: Media (policy)	79	2	0,95	0,88	
Topic area: Society	79	2	0,89	0,73	
Topic area: Science, research, technology	79	2	0,98	0,95	
Topic area: Other	79	2	0,98	0,96	
Frames of relevance					
Conspiracy theories (incl. QAnon)	79	2	0,91	0,81	
Esotericism	79	2	0,98	0,95	
Anti-vaccination	79	2	0,96	0,92	
Anti-science	79	2	0,97	0,95	
Covid denial and trivialization	79	2	0,95	0,89	
Nationalism	79	2	0,97	0,92	
Racism	79	2	0,98	0,96	
Anti-modernism	79	2	0,97	0,93	
Othering					
Elites (all of the below aggregated)	79	2	0,82	0,61	
International political elites	79	2	0,91	0,82	
National (German) political elites (excluding the specified below)	79	2	0,88	0,74	
National (German) political elites: Federal Government	79	2	0,85	0,69	
National (German) political elites: Green Party and left-green milieu	79	2	0,91	0,80	
Elites: Media	79	2	0,95	0,86	
Elites: Economy	79	2	0,94	0,88	
Elites: Other	79	2	0,96	0,89	

Minorities	79	2	0,97	0,93
Activists and NGOs	79	2	0,98	0,96
Other	79	2	0,98	0,96
Self-identification				
Reference and appeals to the people	79	2	0,97	0,93
Those suffering from the policies of "the powerful"	79	2	0,89	0,73
Reference and appeals to the people + Those suffering [...] combined	79	2	0,89	0,73
(Small) community of the knowledgeable/enlightened	79	2	0,93	0,82
Other	79	2	0,94	0,86
Further speech acts				
Recruiting for movement	79	2	0,96	0,91
Recruiting users online	79	2	0,85	0,65
Mobilising participants and supporters	79	2	0,96	0,92
Advertising	79	2	0,93	0,86
Rhetorical and stylistic means				
Stylization of a revelation	79	2	0,83	0,66
Personalisation	79	2	0,86	0,69
Presence author	79	2	0,85	0,66
Creating sense of unity	79	2	0,92	0,82
Insider (knowledge)	79	2	0,96	0,91
Experts	79	2	0,94	0,85
Scientific studies	79	2	0,97	0,95
Evidence such as photos, videos, etc.	79	2	0,84	0,66
Legacy media	79	2	0,87	0,72

Notes. $n = 79$ randomly selected messages were covertly assigned to the human coders during data collection. Decisions on calculating Brennan and Prediger's – or Fleiss's – based on number of categories.

Table A3. Frequencies of current political topics and issues by channel

Channel	Major topics and issues										Topic areas						
	War in Ukraine	Covid Migration	Refugee and change	Climate change	Politics	Interior policies	Identity	Foreign affairs	Economy	Media (policy)	Society	Science	Other	n			
Alternative news providers	16%	11%	7%	8%	5%	3%	31%	12%	5%	3%	1%	1%	1%	1%	64		
Kompasien	9%	29%	19%	2%	3%	2%	18%	12%	5%	3%	8%	5%	3%	2%	65		
Haritz	5%	4%	1%	3%	2%	1%	3%	2%	1%	1%	1%	1%	1%	65			
checkmatenews	0%	22%	1%	5%	4%	3%	4%	3%	1%	1%	1%	1%	1%	72			
reclusuaterre	0%	18%	1%	10%	7%	2%	6%	4%	1%	1%	1%	1%	1%	66			
unout_news	17%	11%	12%	2%	2%	0%	32%	21%	5%	3%	2%	3%	2%	66			
Freiheitgedanken	4%	3%	2%	3%	2%	1%	22%	15%	12%	8%	1%	1%	1%	68			
rosenbuch	8%	18%	12%	0%	0%	0%	12%	8%	1%	1%	1%	1%	1%	68			
Freemantv	9%	18%	12%	0%	0%	0%	25%	17%	12%	8%	1%	1%	1%	68			
altfrempt	14%	9%	2%	10%	7%	2%	17%	11%	13%	8%	1%	1%	1%	64			
altTV	5%	3%	8%	5%	3%	2%	12%	7%	13%	8%	1%	1%	1%	59			
Special interest alt. news providers	20%	2%	1%	0%	0%	0%	70%	3%	8%	4%	2%	10%	5%	50			
metkroki	0%	58%	42%	0%	0%	0%	5%	3%	4%	3%	4%	2%	15%	1%	73		
amrval_euf_alkaarung	18%	10%	7%	0%	0%	0%	72%	4%	7%	5%	1%	1%	1%	68			
globechange	7%	5%	1%	6%	4%	3%	54%	3%	3%	2%	6%	4%	1%	68			
bonnadennews	7%	5%	1%	1%	1%	1%	54%	3%	3%	2%	6%	4%	1%	68			
Multi-topic influencers	6%	4%	3%	6%	4%	3%	13%	9%	10%	7%	1%	1%	1%	71			
blühv	6%	4%	3%	6%	4%	3%	13%	9%	10%	7%	1%	1%	1%	71			
elberbach	6%	4%	3%	6%	4%	3%	13%	9%	10%	7%	1%	1%	1%	71			
abessusenstream	15%	11%	0%	10%	7%	2%	27%	18%	1%	1%	1%	1%	1%	67			
ippskult	2%	1%	0%	6%	4%	3%	2%	1%	5%	3%	6%	4%	1%	66			
FahrenFreiheit	2%	1%	0%	6%	4%	3%	2%	1%	5%	3%	6%	4%	1%	66			
Freiheit_rockl_grtzell	3%	2%	0%	5%	3%	2%	8%	5%	3%	2%	6%	4%	1%	66			
evahermandzeitl	7%	5%	4%	3%	2%	1%	16%	11%	0%	0%	7%	5%	3%	67			
gelnerns_besonderein	9%	5%	4%	2%	1%	1%	30%	17%	4%	2%	4%	2%	4%	67			
radlreisearch	5%	4%	1%	11%	8%	5%	12%	9%	7%	5%	4%	3%	3%	73			
Topic-focused influencers	2%	1%	0%	2%	1%	0%	3%	2%	2%	1%	1%	1%	1%	66			
xavier_nadico	3%	2%	1%	4%	3%	2%	1%	1%	3%	2%	1%	1%	1%	66			
reinerLadisch	3%	2%	1%	4%	3%	2%	1%	1%	3%	2%	1%	1%	1%	66			
hinkbiker	4%	3%	2%	6%	4%	3%	2%	1%	5%	3%	6%	4%	3%	71			
anlämmeren	29%	14%	3%	2%	1%	1%	28%	20%	4%	3%	0%	0%	0%	69			
schickenswahrlein_besatz_bahner	0%	0%	29%	14%	0%	0%	6%	4%	7%	5%	1%	1%	1%	72			
bleichschne	9%	0%	0%	4%	3%	2%	1%	1%	3%	2%	1%	1%	1%	69			
mechschne	7%	5%	9%	6%	0%	0%	14%	10%	0%	0%	3%	2%	1%	69			
mechschneflugleure	7%	5%	9%	6%	0%	0%	14%	10%	0%	0%	3%	2%	1%	69			
Katzen42020pinxten	3%	2%	1%	1%	1%	1%	12%	9%	3%	2%	5%	3%	6%	66			
Bsava Follow ers	70%	42%	2%	2%	0%	0%	0%	0%	5%	3%	0%	0%	0%	60			
neuesausland	50%	32%	0%	0%	0%	0%	42%	27%	6%	4%	2%	1%	1%	64			
antispiegel	55%	36%	0%	0%	0%	0%	38%	25%	2%	1%	2%	1%	1%	66			
ruslanddeutsche	0%	0%	2%	1%	0%	0%	0%	0%	2%	1%	0%	0%	0%	66			
Mass boares	6%	4%	4%	3%	0%	0%	32%	22%	3%	2%	6%	4%	3%	69			
qfyoju	2%	1%	3%	2%	0%	0%	6%	4%	5%	3%	3%	2%	1%	66			
hastlethegesundheitliebung	6%	4%	4%	3%	0%	0%	32%	22%	3%	2%	6%	4%	3%	69			
Activists	6%	4%	4%	3%	0%	0%	32%	22%	3%	2%	6%	4%	3%	69			
Freeschneisen	3%	2%	1%	1%	1%	1%	29%	18%	0%	0%	5%	3%	2%	62			
Kapmanier	26%	17%	2%	1%	3%	2%	3%	2%	0%	0%	40%	26%	3%	62			
ra.ladwig	1%	1%	1%	1%	1%	1%	11%	8%	1%	1%	4%	3%	1%	73			
aerztvorauserkennungsfrist	3%	2%	1%	1%	1%	1%	8%	6%	1%	1%	7%	5%	1%	67			
Full sample	10%	26%	16%	12%	3%	2%	5%	14%	4%	3%	13%	9%	2%	55			
	10%	26%	16%	12%	3%	2%	5%	14%	4%	3%	13%	9%	2%	55			
	10%	26%	16%	12%	3%	2%	5%	14%	4%	3%	13%	9%	2%	55			

Notes. N = 2,669 messages. Percentages relative to n messages per channel. Absolute frequencies in brackets. Multiple topics could be coded per message.

Table A4. Frequencies of types of sources of curations in original messages and forwards by channel*Frequencies of types of sources of curations in original messages and forwards by channel*

Channel	Self-promotion	Anti-establishment public sphere	Legacy media	Website/shop	Other	n
Original messages						
Alternative news providers						
kenjebesen	–	–	–	–	–	0
haintz	0% (0)	13% (4)	29% (9)	0% (0)	0% (0)	13
checkmatenews	0% (0)	35% (16)	7% (3)	2% (1)	2% (1)	21
reitschusterde	82% (59)	7% (5)	0% (0)	0% (0)	0% (0)	64
uncut_news	67% (44)	6% (4)	0% (0)	0% (0)	0% (0)	48
freiheitdergedanken	0% (0)	49% (21)	0% (0)	0% (0)	0% (0)	21
rosenbusch	2% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
freiemedientv	0% (0)	29% (9)	6% (2)	0% (0)	3% (1)	12
stefanmagnet	4% (2)	19% (11)	0% (0)	0% (0)	0% (0)	13
auf1tv	31% (18)	0% (0)	0% (0)	0% (0)	0% (0)	18
Special interest alt. news providers						
markmobil	–	–	–	–	–	0
anwaelte_fuer_aufklaerung	8% (3)	74% (28)	8% (3)	0% (0)	0% (0)	34
qlobalchange	7% (4)	2% (1)	0% (0)	0% (0)	0% (0)	5
lionmedianews	3% (1)	17% (5)	13% (4)	0% (0)	0% (0)	10
Multi-topic influencers						
bitteltv	0% (0)	4% (2)	28% (16)	0% (0)	0% (0)	18
oliverjanich	5% (1)	10% (2)	10% (2)	10% (2)	0% (0)	7
allesaussermainstream	7% (2)	28% (8)	0% (0)	0% (0)	0% (0)	10
rppinstitut	7% (4)	16% (10)	7% (4)	0% (0)	2% (1)	19
faktenfriedenfreiheit	2% (1)	2% (1)	0% (0)	0% (0)	0% (0)	2
frieden_rockt_offiziell	7% (3)	2% (1)	2% (1)	2% (1)	0% (0)	6
evahermanoffiziell	0% (0)	39% (20)	33% (17)	2% (1)	2% (1)	39
geheimswissendereliten	0% (0)	5% (2)	0% (0)	0% (0)	0% (0)	2
rabbitresearch	2% (1)	2% (1)	2% (1)	2% (1)	0% (0)	4
Topic-focused influencers						
xavier_naidoo	0% (0)	2% (1)	0% (0)	0% (0)	0% (0)	1
reinerfuellmich	0% (0)	62% (8)	0% (0)	0% (0)	0% (0)	8
timmkellner	10% (7)	24% (16)	0% (0)	0% (0)	0% (0)	23
antiilluminaten	0% (0)	25% (17)	12% (8)	3% (2)	6% (4)	31
rechtsanwaeltin_beate_bahner	4% (1)	56% (15)	7% (2)	0% (0)	0% (0)	18
bitchbotboiilive	0% (0)	6% (2)	9% (3)	0% (0)	3% (1)	6
macklemachtgutelaune	3% (1)	3% (1)	0% (0)	0% (0)	7% (2)	4
klartext2021gemeinsam	2% (1)	12% (8)	8% (5)	3% (2)	0% (0)	16
Issue followers						
neuesausrussland	0% (0)	7% (3)	0% (0)	0% (0)	0% (0)	3
antispiegel	56% (35)	5% (3)	0% (0)	0% (0)	0% (0)	38
russlandsdeutsche	5% (3)	7% (4)	0% (0)	0% (0)	0% (0)	7
Missionaries						
q74you	0% (0)	12% (1)	0% (0)	0% (0)	0% (0)	1
holistischesgesundheitsheilung	40% (25)	38% (24)	3% (2)	5% (3)	0% (0)	54
Activists						
freiesachsen	3% (2)	0% (0)	0% (0)	0% (0)	0% (0)	2
klagemauertv	6% (4)	2% (1)	0% (0)	0% (0)	0% (0)	5
ra_ludwig	15% (4)	27% (7)	12% (3)	8% (2)	4% (1)	17
aerztefueraufklaerungoffiziell	6% (3)	22% (11)	2% (1)	2% (1)	0% (0)	16
Total	12% (230)	14% (273)	5% (86)	1% (16)	1% (12)	617

Channel	Self-promotion	Anti-establishment public sphere	Legacy media	Website/shop	Other	<i>n</i>
Forwards						
Alternative news providers						
kenjebesen	–	–	–	–	–	0
haintz	0% (0)	21% (7)	15% (5)	0% (0)	0% (0)	12
checkmatenews	0% (0)	7% (2)	4% (1)	0% (0)	0% (0)	3
reitschusterde	–	–	–	–	–	0
uncut_news	–	–	–	–	–	0
freiheitsgedanken	4% (1)	24% (6)	12% (3)	8% (2)	0% (0)	12
rosenbusch	–	–	–	–	–	0
freiemedientv	3% (1)	3% (1)	3% (1)	0% (0)	0% (0)	3
stefanmagnet	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
aufftv	–	–	–	–	–	0
Special interest alt. news providers						
markmobil	–	–	–	–	–	0
anwaelte_fuer_aufklaerung	0% (0)	49% (17)	3% (1)	3% (1)	0% (0)	19
qlobalchange	0% (0)	8% (1)	0% (0)	0% (0)	0% (0)	1
lionmedianews	0% (0)	16% (6)	8% (3)	0% (0)	0% (0)	9
Multi-topic influencers						
bitteltv	0% (0)	29% (4)	0% (0)	0% (0)	0% (0)	4
oliverjanich	0% (0)	26% (13)	4% (2)	6% (3)	0% (0)	18
allesaussermainstream	0% (0)	16% (6)	5% (2)	0% (0)	0% (0)	8
rppinstitut	0% (0)	40% (2)	0% (0)	0% (0)	0% (0)	2
faktenfriedenfreiheit	–	–	–	–	–	0
frieden_rockt_offiziell	0% (0)	12% (3)	0% (0)	0% (0)	0% (0)	3
evahermanoffiziell	0% (0)	6% (1)	0% (0)	0% (0)	0% (0)	1
geheimswissendereliten	0% (0)	35% (7)	0% (0)	0% (0)	0% (0)	7
rabbitresearch	0% (0)	17% (4)	8% (2)	0% (0)	0% (0)	6
Topic-focused influencers						
xavier_naidoo	–	–	–	–	–	0
reinerfuellmich	0% (0)	13% (7)	2% (1)	0% (0)	0% (0)	8
timmkellner	0% (0)	67% (2)	0% (0)	0% (0)	0% (0)	2
antiilluminaten	–	–	–	–	–	0
rechtsanwaeltin_beate_bahner	0% (0)	22% (10)	4% (2)	0% (0)	0% (0)	12
bitchbotboilive	0% (0)	20% (7)	34% (12)	0% (0)	0% (0)	19
macklemachtgutelaune	0% (0)	5% (2)	3% (1)	0% (0)	0% (0)	3
klartext2021gemeinsam	–	–	–	–	–	0
Issue followers						
neuesausrussland	0% (0)	33% (5)	0% (0)	0% (0)	0% (0)	5
antispiegel	–	–	–	–	–	0
russlandsdeutsche	–	–	–	–	–	0
Missionaries						
q74you	5% (3)	2% (1)	2% (1)	0% (0)	0% (0)	5
holistischesgesundheitsheilung	33% (1)	33% (1)	0% (0)	0% (0)	0% (0)	2
Activists						
freiesachsen	–	–	–	–	–	0
klagemauertv	–	–	–	–	–	0
ra_ludwig	0% (0)	15% (7)	2% (1)	9% (4)	2% (1)	13
aerztefueraufklaerungoffiziell	0% (0)	19% (3)	0% (0)	0% (0)	6% (1)	4
Total	1% (6)	16% (125)	5% (38)	1% (10)	0% (2)	181

Notes. *n* = 798 messages with curations. Percentages relative to *n* number of messages with curations per channel. Absolute frequencies in brackets.