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Fringes of Religious Extremism
on YouTube

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# Executive summary

This report will describe the fringes of extremism on YouTube from four different perspectives: network, content, range of stylistic elements and (evolving) popularity of the Top 25 channels. The main findings are as follows:

- A YouTube user searching for videos relating to Islam will be confronted with a large number of Salafi -inspired channels, Islamist-inspired channels and hybrid channels that have been listed in a database documenting the fringes of religious extremism; it is extremely difficult for a YouTube user to access information about Islam outside these channels.
- These channels on the fringes of religious extremism form a "bubble" within the wider YouTube landscape, since a user who follows one of them frequently follows several. Gateway channels also offer access to this bubble because of the way that YouTube's recommendation algorithm works.
- The recommendation algorithm helps to ensure that users enter the bubble and remain in it; if a user views one video from the bubble, YouTube will suggest more videos from the same bubble for him or her to view.
- The channels are characterised by an extremely diverse range of stylistic elements, style and content, as well as by a willingness to evolve rapidly and adapt their media strategies to users' preferences.
- Viewers appear to be interested mainly in Islam itself, and in the associated questions of the "right" way to believe and the "right" way to live. A network analysis based on the user/viewer perspective or user/viewer behaviour reveals that ideological differences, rivalries and demarcations between YouTube personalities and content producers do not seem to play a decisive role as far as the audience is concerned.
- The style, layout and format of the YouTube channels in question, as well as the topics they cover and the other channels they recommend, indicate that producers often gain inspiration and ideas for content from channels based in other English-speaking and/or Arabic-speaking countries. Close ties apparently exist with the network of Wahhabi scholars in Saudi Arabia and the Gulf states and with Islamist and Salafi movements in Turkish-influenced areas and the United Kingdom, and new developments within this network are eagerly received.
- There were no significant changes in the Top 25 channels during the period under investigation (February to November 2019). The same 25 channels remained at the top of the ranking.
- Parties involved in prevention efforts require this and similar information as a starting point for effective action.

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# | Introduction

YouTube is a hugely important platform via which individuals – in particular adolescents – access information about topics of everyday interest or political issues. In Germany, 86% of all adolescents are active YouTube users, and the Expertengremium Rat für kulturelle Bildung (Expert Committee of the Council for Cultural Education) describes the platform as a "site of digital culture". Young people regard YouTube as a knowledge platform, and the videos they watch, "play a large role in determining the cultural activities in which they engage".[1] Video creators from Islamist or Salafi backgrounds have been aware of YouTube's potential for some time, and use it to further their attempts to dominate the discourse within Islamic circles in Germany.

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1 Expertengremium Rat für Kulturelle Bildung, "JUGEND / YOUTUBE / KULTURELLE BILDUNG. HORIZONT 2019" (Taunusstein, 2019), 6–8.

Against this backdrop, and as part of a study funded by the Bundesministerium des Innern, für Bau und Heimat (Federal Ministry of the Interior, Building and Community) entitled "Current terms, actors and trends in Salafi (online) discourse and implications for the prevention of radicalisation (ABAT study)"[2], a total of 210 channels on the fringes of extremism were identified on YouTube over the course of 2019 using a "first impression screening" (FIS) method. The information about Islam available on YouTube is dominated by the influence of these channels, and the total subscriber count and total view count merely for the Top 25 channels identified as being on the fringes of extremism is 510,166 and 70,132,227 respectively.[3] The fact that the discourse is dominated in this way means that the interpretation of Islam proposed to adolescents and young people searching for information is permeated by a Salafi/Wahhabi understanding of the world, with a strong leaning towards Islamic salvation history and apocalypse; these channels urge adolescents to actively withdraw from society and create a religious counter-culture. The ABAT study explored the field and produced an initial overview (as described in this report) that can be used as a basis for further research. To achieve a better understanding of the challenges faced by parties involved in prevention efforts, the following sections will discuss and describe in more detail topics such as network, content, formats and popularity.

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2 One of the most important tasks tackled within the framework of the ABAT project was the development of an appropriate vocabulary for analysing the fringes of religious extremism. As work progressed, it was decided that the phrase "Salafi (online) discourse" used in the project's title was no longer appropriate, since this heterogeneous space for the transmission of Islamic ideas and religious beliefs is dominated by both Salafi and Islamist discourses and by discourses with a hybrid content (e.g. also Sunni fundamentalist, orthodox or conservative views).

3 The total subscriber count is calculated as the total number of subscribers to the Top 25 channels; individuals may have been counted twice or more if they follow multiple channels. The total video view count is calculated as the total number of views for all videos for all of the channels identified, from the date that these channels started publishing videos. Multiple views by the same user are counted individually. The figures were collected on 25 April 2019.

# 1 | Literature review and description of the problem

As the largest video streaming platform on the Internet, YouTube allows creators and users to upload, view, comment on and rate content, and to respond to each other in videos. As many as 23% of YouTube users aged between 12 and 19 regularly watch videos that, "comment on the news and international affairs."[4] At the same time, researchers such as Döring (2015) have found that adolescents often uncritically copy the traditional and stereotypical gender roles embodied by YouTubers, meaning that the latter assume the position of role model,[5] and suggesting that adolescents tend to be uncritical recipients of the information disseminated about the Islamic religion via the medium examined in this report. Generally speaking, however, and as stated by Hugger et al. (2019), "there are barely any accurate empirical findings about the extent to which adolescents differentiate between videos published on the Internet by YouTubers, in particular those containing information and opinions on political events and international affairs."[6] Authenticity appears to be a particularly important factor for the target audience:

"Adolescents tend to believe that YouTubers providing information-based content are more authentic because they are 'genuine' people talking about their 'real-life experiences'. This is particularly true for videos produced by YouTubers with a comparatively low number of followers. The appeal and credibility attributed to YouTubers by the adolescents surveyed increased in step with their perceived authenticity."[7]

4  Medienpädagogischer Forschungsverband Südwest (2018). JIM-Studie 2017 – Jugend, Information, (Multi-)Media. Basisuntersuchung zum Medienumgang 12- bis 19-Jähriger. Available at: www.mpfs.de/fileadmin/files/Studien/JIM/2017/JIM_2017.pdf (Accessed: 26 February 2019).

5  Döring, Nicola (2015). Die YouTuber-Kultur im Gender-Check. In: merz, Jg. 59, 1/2015, 17-24. Gebel, Christa and Andreas Oberlinner (2018). Das GEHEIMNIS meines ERFOLGES. Orientierungspotenzial von YouTube-Stars. In: merz, Jg. 62, 3/2018, 38-43.

6  Hugger, Kai-Uwe, Lea Marie Braun, Christian Noll, Tine Nowak, Lars Gräßer, Daniel Zimmermann and Kai Kaspar (2019). Zwischen Authentizität und Inszenierung. Zur medienkritischen Einschätzung informationsorientierter YouTuber*innen-Videos durch Jugendliche. In: Friederike von Gross and Renate Röllecke (Hrsg.), Dieter Baacke Preis Handbuch 14. Instagram und YouTube der (Pre-)Teens. Inspiration, Beeinflussung, Teilhabe. Munich, kopaed, 30.

7  Ibid.

A study carried out by the Pew Research Center in 2018 revealed that YouTube also plays a major role in the life of its adult users. For example, 35% of all adults in the USA (accounting for both users and non-users of the site) use YouTube to help them, "figure out how to do things they haven't done before,"[8] and one fifth of all users use the platform to help them understand events that are happening in the world. The obvious implication of this is that extremist content on YouTube may reach an interested target audience that would otherwise be separated in time and space, and not all of whose members may be capable of reflecting critically on what they see. Users expect authenticity (which they tend to believe is an attribute of the smaller rather than the larger channels[9]) and are interested in finding out more about international affairs or specific topics such as Islam. Uncritical acceptance of the opinions expressed by the creators of these videos is particularly likely among younger users.

YouTube's recommendation algorithm has also become a focus of increasing research interest. According to the Pew study referred to above, YouTube encourages users to watch progressively longer videos, and many users encounter videos that seem false or untrue or that show people engaging in dangerous or troubling behaviour (64% and 60% respectively).[10] A study investigating extremist content found that the algorithm proposed increasingly extreme content to users who had already engaged with less extreme content in the past[11] (whereby these findings applied to both right-wing and religious extremism[12]). Particularly in the digital sphere, the decisions taken by an individual are shaped to a very large extent by algorithm-driven recommendations and the individual's social network.[13] Content proposed by the algorithm may not be perceived as "biased", making it harder for users to reject what they see and hear.[14]

8  Smith, Aaron, Skye Toor and Patrick van Kessel (2018). Many Turn to YouTube for Children's Content, News, How-To Lessons. An analysis of videos suggested by the site's recommendation engine finds that users are directed towards progressively longer and more popular content. Pew Research Center, 2.

9  Hugger et.al. 30.

10  Smith et.al. 6.

11  Reed, Alastair, Joe Whittaker, Fabio Votta and Seán Looney (2019). Radical Filter Bubbles. Social Media Personalisation Algorithms and Extremist Content. Global Research Network on Terrorism and Technology: Paper No. 8. RUSI, 8-9. Available at: https://rusi.org/sites/default/files/20190726_grntt_paper_08_0.pdf.

12  Roose, Kevin (2019). https://www.nytimes.com/interactive/2019/06/08/technology/youtube-radical.html (Accessed: 25 November 2019).

13  Courtois, Cédric, Elisabeth Timmermans (2018). Cracking the tinder code: An experience sampling approach to the dynamics and impact of platform governing algorithms. Journal of Computer-Mediated Communication, 23, 1–16.

14  Bode, Leticia and Emily Vraga (2015). In related news, that was wrong: The correction of misinformation through related stories functionality in social media. Journal of Communication, 65, 623.

The following problem arises on the basis of these findings:

> the way that the YouTube platform currently works means that (young) people who are searching for authenticity and information, inter alia to help them "figure out how to do things they haven't done before" or to learn about international affairs, and who also tend to accept YouTubers' opinions uncritically, are being shown increasing volumes of increasingly extreme and extremist content. Simply by asking straightforward "how to" questions ("How do I pray correctly?"), questions about international affairs ("Christchurch attack") or questions seeking information ("What is a hijab?"), individuals searching for information about Islam can therefore quickly find themselves in a microcosm or echo chamber.

The ABAT project took this problem as its starting point, and initially investigated the videos that were shown to German-speaking YouTube users searching for information about Islam, using several different search strategies.[15] Analysis of the database created on the basis of these investigations not only confirms the findings made in the aforementioned studies,[16] but also leads to the following conclusion:

Users are confronted with three different types of channels (provisionally grouped under the heading "Fringes of religious extremism" for the purpose of the ABAT project) which form a filter bubble characterised by polarisation and the dissemination of increasingly extremist content.

This group of channels can be divided into three categories:

| channels broadcasting content that is unquestionably Salafi-inspired, and hosting individuals known to be active within Germany's Salafi community,
| channels associated with the Hizb ut-Tahrir movement that are clearly Islamist-inspired, and
| channels broadcasting content that contains at least some components of Islamist or Salafi beliefs. These channels will be referred to as "hybrid mission channels" or "hybrid channels" in the remainder of this report.

After indexing the filter bubble in a database, the project's second objective was to investigate this bubble using exploratory and inductive methods.

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15  See "Definition of the fringes of extremism".
16  See "YouTube's recommendation algorithm".

# 2 | Methodology

A **mixed method approach** was followed throughout the various phases of the ABAT project; this approach was also refined on an ongoing basis as the project evolved, thanks to the interdisciplinary nature of the work carried out by the individuals working on the project and the modus|zad team. The first stage involved systematically indexing the material required as a basis for analysis (i.e. relevant YouTube channels and the YouTube environment identified on this basis) and collating this material in a database.

## a | Qualitative approach

The researchers embarked on the task of qualitative analysis by carrying out a manual search using a range of different search strategies:

1 **First impression screening (FIS):** this is a methodology for evaluating the initial results that was created inductively. If a channel was deemed relevant after an initial examination of the channel page and title and a cursory viewing of some of the videos uploaded, the following parameters were recorded: sequential number, channel name, subscriber count on date, link to channel, found on, found by whom, total view count for channel, probable type, joined on, channel's own description (from the channel information), direct access (Facebook, other links), estimated activity (uploads), estimated view counts for individual videos, estimated range of (religious) references and a field for comments. Two different search strategies were then used:

2 **Unstructured search:** starting with the largest and best-known German-speaking channels, the "Up next" algorithm function was used to carry out an unstructured search utilising the snowball effect. Since the "Up next" videos recommended by YouTube typically included other content from the fringes of extremism (see "YouTube's recommendation algorithm"), this was an effective approach. Software was used to perform an additional experimental verification of the results, and the outcomes confirmed the findings made in other publications.[17] The relevance of the results and the most important channel parameters were checked using the FIS method prior to inclusion in the database.

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17  E.g. Reed et.al. (2019).

3   Structured search: at the same time, a structured search was carried out using a pre-prepared list of around 40 search terms relating to key Islamic concepts that are also significant in a Salafi/Islamist context. This list of terms was entered into YouTube's search bar. Appropriate channels and their key parameters were then also included in the FIS database after their relevance had been checked using the FIS method. The results delivered by each of these different search strategies were almost identical.

4   A specially programmed Python script was then used to scrape[18] the title, description, comments, number of comments, transcripts, creation date, length and like and dislike count from YouTube *(via the YouTube API)* for all the videos uploaded to the 210 channels that had been identified, and the results were stored in a MySQL database. This database is updated on a daily basis and currently (5 December 2019) contains a total of **91,157 entries**.

18   "Scraping" is a procedure carried out by automated scripts (created using the programming language Python in this instance) that independently download the latest relevant information from the YouTube platform on a daily basis.

5  Top 25 channels: 210 channels on the fringes of extremism were identified in total. These 210 channels were used as a basis for ranking the current Top 25 channels in German-speaking countries, based on subscriber counts. At least six hours of videos were viewed for each of the Top 25 channels.

6  A deductive code system aimed at analysing the Top 25 channels and their videos was then developed as a basis for qualitative content analysis using MAXQDA. To begin with, the outcomes of the preliminary content-related work using the FIS method and the review of secondary literature were collated in a matrix. The data for the Top 25 channels were then imported using MAXQDA, and the deductive code system was applied to the transcripts for all channels. This provided an initial quantitative and qualitative overview of the relevant key topics, and the data obtained using MAXQDA also serve as a suitable basis for further in-depth analysis of specific topics, e.g. in relation to anti-Semitism, gender, education, the State or negative stereotypes. The deductive code system will be modified as new findings are made.

7  The design of the videos was also analysed and categorised by style (see "Diversity of stylistic elements").

8  The exploratory approach applied by the researchers working on the study guaranteed a high level of flexibility, and the methods used were adapted on multiple occasions to conditions in the field. As a basis for these adaptations, the authors kept a research logbook with comments on and details of the individual steps carried out over the past month; the approach to be followed over the next month and any questions that had arisen were determined using this information. This data-driven approach made it possible to respond rapidly to changes in the field and adapt the methods used.

## b | Quantitative approach

The group of channels identified using the FIS method at the qualitative analysis stage was used as a starting point for the quantitative analysis, the aim of which was to explore the links between the Top 25 channels and position them correctly in a graphic representation of the "YouTube landscape". The YouTube platform is much more than just a simple video hosting site; it is an extremely complex social network within which millions of users interact with each other in different ways, recommend videos to each other, subscribe to videos and comment on videos.[19] These interactions make it possible to identify channels that form a social network, channels that reach particular target groups and channels whose content appeals to a range of different target groups. The aim of the data analysis was to produce a social network analysis (SNA); in the resulting graphs, the complex relationships between the channels are represented in the form of nodes and edges (each node represents a channel, and each edge represents a link between channels[20]). Although the use of social network analysis techniques is widespread in the social sciences and is not a new idea, it represents a particularly useful method for dealing with large quantities of data;[21]

at the same time, however, the level of accuracy achieved using these techniques is heavily dependent on the quality of the data available. YouTube makes it very difficult to access certain types of data (it is impossible to see which users have directly viewed a video, for example), and so the subscriber count was chosen as an alternative. YouTube's Application Programming Interface (API) can be used to identify the channels followed by a particular channel, but there is no direct way of identifying the opposite, i.e. the channels following a particular channel. The initial objective was therefore to identify a sufficiently large number of channels that 1. show subscriptions and 2. follow at least one Top 25 channel. The search was carried out by looking in the comments area for channels that met the above criteria. Overall, 49,940 individual channels commented on one of the videos published by the Top 25 channels. Of these channels, 11,589 met both criteria, and these channels subscribed to 209.02 channels on average. After duplicates had been eliminated, this process identified 604,238 channels that follow at least one of the Top 25 channels and are therefore relevant for network analysis purposes.

19  Crick, Matthew (2016).Power, Surveillance, and Culture in YouTube™'s Digital Sphere. Hershey, PA: IGI Global, 63-96.

20  Van Den Ende, Benn (2017). "Understanding and Combatting Terrorist Networks: Coupling Social Media Mining with Social Network Analysis," in The Proceedings of 14th Australian Information Security Management Conference, 5-6 December, 2016, ed. Mike Johnston. Perth, Western Australia: Edith Cowan University, 48-51.

21  Steketee, Michael, Atsushi Miyaoka and Maura Spiegelman (2015). "Social Network Analysis," in International Encyclopedia of the Social & Behavioral Sciences, ed. James D. Wright, 2nd ed. Amsterdam, Elsevier, 461-467.

Shared Subscribers A∩B

Subscribers to channel A
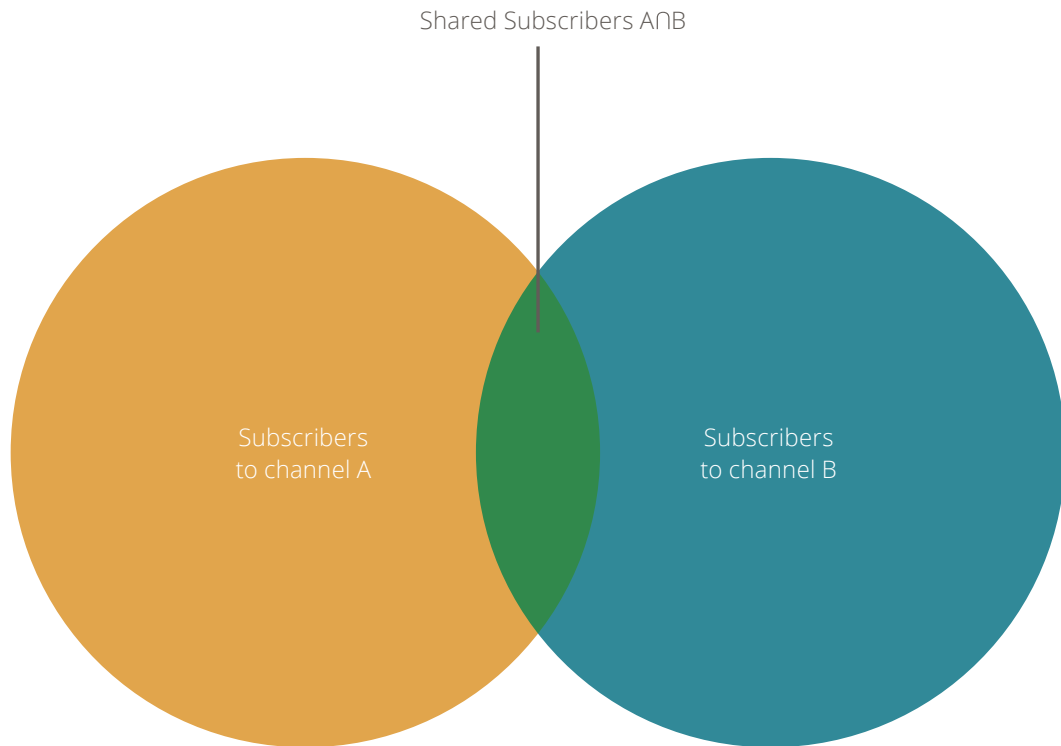
Subscribers to channel B

Figure 1: Calculation of edge thickness

$$\text{edge thickness} = \frac{A \cap B}{A} + \frac{A \cap B}{B}$$

In the interests of clarity, not all of the potential relationships (edges) or all of the channels (nodes) were plotted in the final graph. Instead, a limit was imposed by identifying channels that followed at least 200 of the selected channels, which reduced the number of nodes from 604,238 to 1,060. The relationships between the various pairs of channels were then investigated. The relationship between two sample channels ("A" and "B") was calculated from the quotient of the number of shared subscribers to channels "A" and "B" and the number of subscribers to channel "A", added to the quotient of the number of shared subscribers to channels "A" and "B" and the number of subscribers to channel "B".

The values obtained using this calculation method lie on a normalised scale between 0% and 200%; the higher the rating for the relationship between the channels, the more subscribers they share (in relative terms). The graphing software selected was Gephi, with the layout algorithm ForceAtlas 2 (a force-directed layout that simulates a physical system in order to spatialise the structure of data[22]). Nodes that share many edges are shown closer together, while nodes that share fewer edges are shown further apart.[23] The graph produced using this method shows all the relevant channels in clusters, and the interconnections between them[24] .

The next stage involved analysing YouTube's recommendation algorithm. In order to do so, the 100 most-viewed videos for each of the Top 25 channels were selected, and all the recommendations for these videos were evaluated using the YouTube API. The region code was set to "Germany", but the recommendations obtained via the YouTube API are not personalised to a specific user. In most cases, between 50 and 100 videos were proposed for each individual video[25].

22  Jacomy, Mathieu, Tommaso Venturini, Sebastien Heymann and Mathieu Bastian (2013). "ForceAtlas2, a Continuous Graph Layout Algorithm for Handy Network Visualization Designed for the Gephi Software," PLoS One 9,6.
23  Schmitt, Josephine, Diana Rieger, Olivia Rutkowski and Julian Ernst (2018). "Counter-messages as Prevention or Promotion of Extremism?! The Potential Role of YouTube," Journal of Communication 68, 780-808.
24  See "Network graph".
25  See "YouTube's recommendation algorithm".

## c | Limitations of the study and the methods

The exploratory nature of the study imposed limitations on the methods used. The investigation into the channels on the fringes of extremism lasted one year in total, and the sheer amount of material available made it impossible to analyse all of the videos in detail during this period. Large quantities of data can be handled using computer-aided data analysis techniques and automated procedures for scraping information about videos and transcribing them, but the quality of the transcripts created by Google was sometimes unsatisfactory as a result of background noise, unclear diction or misidentification of Arabic terms; one way of obtaining more usable results would be to download the individual video soundtracks and then analyse them using more powerful speech recognition software. Particularly when carrying out qualitative analyses of video content in relation to specific key topics, it is therefore necessary to view sample videos directly, and in some cases to rework the transcripts manually. Since many of the channels also use visual imagery to accompany the spoken word, it is not always enough simply to examine the transcripts without analysing the video as a whole.

YouTube's rules and API restrictions mean that certain metadata cannot be accessed, so that answers are not available to all questions. The quota of API queries is also limited.

This study is guided by the fundamental principle of "Do not harm", which essentially means that it should not unintentionally cause individuals to be (further) radicalised, and that it follows a cautious approach in order to avoid stigmatising and making premature judgements. One of the challenges faced when investigating the fringes of extremism has been and continues to be the delicate balance that must be struck between research questions, the public interest, individual rights and the interests of the channel operators. Particular care must be taken when deciding which channels should be referred to by name (even though the channel names are not generally the names used by the individuals "in the real world"). Striking this balance imposes limits on the publication of findings in some cases, but it is nevertheless a necessary ethical restriction. This report names a number of relevant channels, and in some cases contains direct links to them; although most of these channels are relatively easy to categorise (because they are hosted by well-known preachers, because they have appeared in the "Annual Report on the Protection of the Constitution" etc.) and a deliberate choice was made to avoid focusing on smaller channels, it is impossible to state with absolutely certainty that none of the channels have been miscategorised. Certain channels are named that are not located on the fringes of extremism; explicit reference is made to this fact in the text.

# 3 | Network graph

A network analysis was carried out in order to analyse the channels on the fringes of extremism in the context of the broader YouTube landscape. This analysis revealed that these channels form a separate cluster, which is clearly recognisable on the left-hand side of the network graph below. None of these channels are located at a significant distance apart from the others. There is a high probability that someone who follows one of the channels in the cluster will also follow another channel in the cluster.
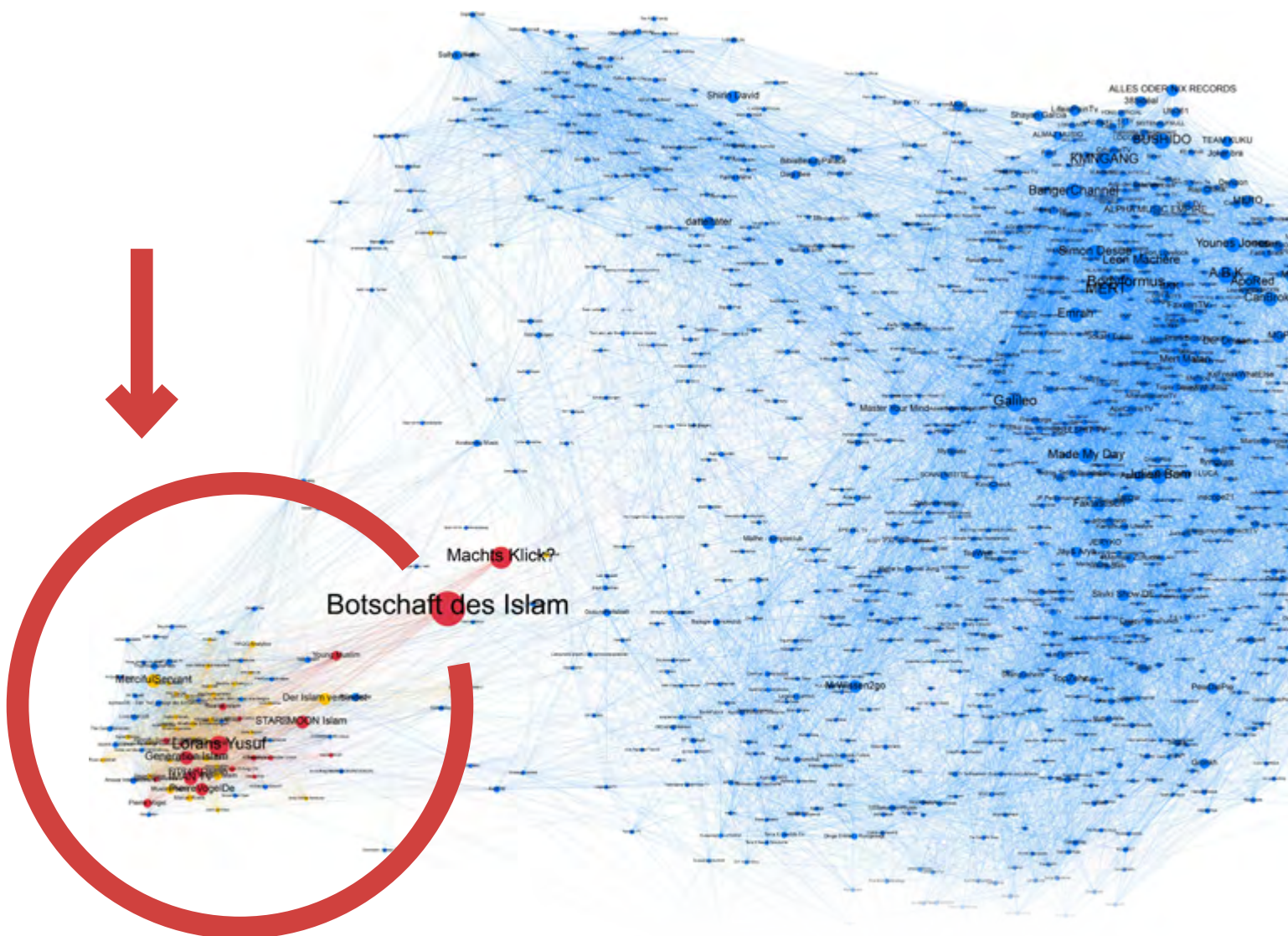


Figure 2: The channels that were found to have a high proportion of content classifiable as Salafi or Islamist form a separate cluster to the far left of the network graph.[26]

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26  A scalable and zoomable version of the network graph can be found at: https://modus-zad.de/blog/die-blase-der-peripherie/.

The group of channels on the left-hand side of the graph appears to be relatively cohesive, or in other words easy to demarcate from "the rest of YouTube" on the basis of subscriber information. Manual checks confirmed that the cluster contains only channels adhering to the typical pattern of channels on the fringes of extremism. The initial identification of 25 channels and the subsequent use of network analysis as a means of identifying additional relevant channels on the fringes of extremism thus appears to be a productive method, particularly in cases where the channel name does not indicate whether the content is relevant.

Closer investigation of the cluster reveals that subscribers do not appear to make any recognisable distinction between the different content types or the different ideological backgrounds of the channels in the cluster on the fringes of extremism; instead, connecting lines run backwards and forwards between all the channels in the cluster. An initial examination of the cluster that has been identified on the fringes of extremism does not reveal any subgroups as far as user behaviour is concerned.[27]

Instead, attention must be focused on the channels that "build bridges" between the cluster on the left-hand side and the rest of the YouTube landscape. These include in particular "Botschaft des Islam" and "Macht's Klick?", both of which have a great many links (edges) in both directions. Based on the network analysis, it can be hypothesised that these two channels play a decisive role in encouraging new users to view even more (and ever more) extreme content. They are not only two of the most successful channels in the cluster (based on view count and subscriber count), but also among the most intuitively appealing because of their easily digestible content and appealing visual imagery.

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27  See "Topic-centred user behaviour".

The widest-reaching channels on the fringes of extremism are the only ones providing content that appeals to the relevant user groups after they first come into contact with Islam (with the exception of a small number of channels that do not belong on the fringes of extremism, such as "Eurasian Muslima" and "Salsabil al-Almaniya"); this would therefore be a useful starting point for concrete action by those involved in (online) prevention efforts.



Figure 3: The bridge channels "Botschaft des Islam" and "Macht's Klick?" represent a transition between the cluster and the rest of the YouTube landscape.
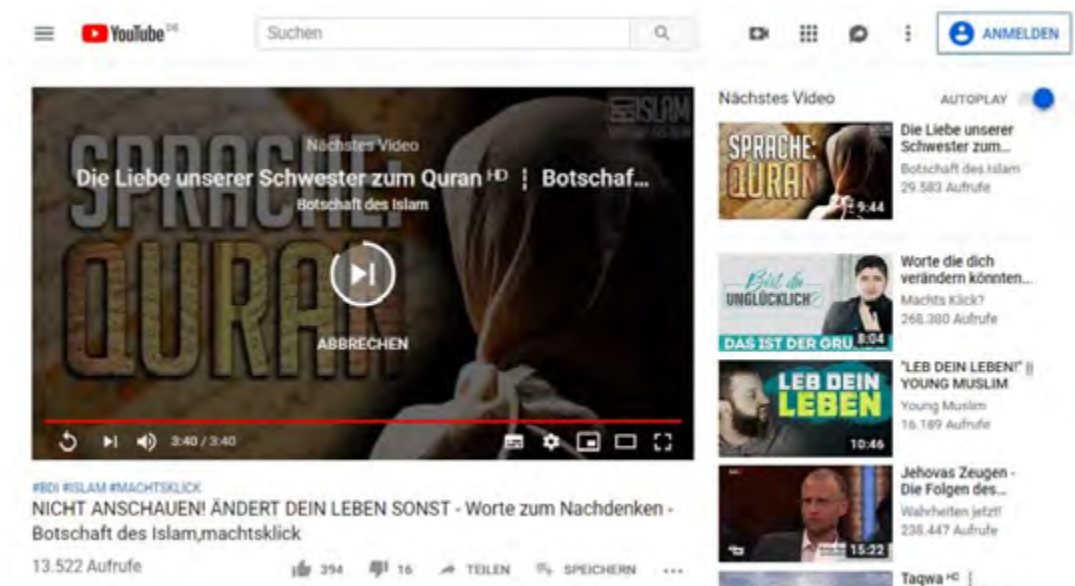
# 4 | YouTube recommendation algorithm



Figure 4: YouTube's algorithm recommends new videos to the right of every video shown. Unless the user has changed the default settings, the top recommendation will start playing automatically as soon as the current video ends.

### a | Recommendations out of the bubble

One way of gaining a better understanding of the fringes of extremism is to take a closer look at YouTube's recommendation algorithm. This algorithm guides users to new videos so that channels gain new users, and YouTube also benefits because these users spend longer on the platform.

Tests of YouTube's recommendation algorithm carried out for the purpose of the study revealed that in 70,530 out of 108,875 cases, the videos recommended alongside a video in the cluster also belonged to the cluster. It follows that users who have already watched a video within the cluster are significantly more likely to be shown other videos in the cluster by YouTube's algorithm (see top right of Figure 5, "Nächstes Video [Up next]"). According to the algorithm, the most likely scenario is that a user who has "entered" the cluster does not (or will not) necessarily leave it again immediately; this not only strengthens the hypothesis that the channels that have been identified form a segregated cluster within the YouTube landscape, but also suggests that YouTube fosters this segregation at a functional level as a result of the way that it recommends videos.

Investigations were also carried out into the videos recommended by YouTube after a user has watched a video published by a channel in the cluster on the fringes of extremism. It became apparent that YouTube's algorithms are extremely accurate, since nearly all of these videos were directly related to Islam, including those published by channels outside the cluster. There were nevertheless a small number of exceptions, e.g. the Terra X documentary "Wie Drogen die Welt verändern [How drugs are changing the world]", which was produced by ZDF and which ranked 22nd on the list of non-cluster videos recommended most frequently during the period under investigation.[28]

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28  https://www.youtube.com/watch?v=9Kd47kkIO78 (Accessed: 26 November 2019).

A previous study has found that YouTube ranks current videos more highly than older ones.[29] The ZDF documentary was published on the Internet only a few days before the recommendations were analysed, and when further tests were carried out for comparison purposes a few weeks later, this documentary was no longer recommended. In total, 2.49% of the videos recommended had been uploaded in the week before the analysis, and this group included all of the recommendations without a direct link to Islam. A short period exists during which videos featuring a different type of content may reach viewers of channels within the cluster on the fringes of extremism, but if the video in question is found to be insufficiently relevant to these viewers, it will no longer be recommended by the algorithm.

This window of time – the period during which other videos may be recommended alongside videos published by channels in the cluster – is short, and these videos account for a vanishingly small proportion of the newly uploaded videos that are recommended (only 2.49%). One potential reason for the biased nature of these recommendations is that the content of the videos within the cluster is highly congruent; YouTube's algorithm works on the basis of prominent "key words" in videos, and the key words in question are only used infrequently and with a lesser impact by other channels. Yet although the recommendation algorithm is accurate, it is also problematic in the context of the cluster we have identified on the fringes of extremism. The process by which a constant stream of new extremist videos from this cluster are recommended may foster radicalisation owing to the lack of other alternatives on offer.

29  Rieder, Bernhard, Ariadna Matamoros-Fernández and Òscar Coromina (2018). From ranking algorithms to "ranking cultures": Investigating the modulation of visibility in YouTube search results. Convergence: The Interna-tional Journal of Research into New Media Technologies. Vol 24(1), 56.

### b | Recommendations into the bubble

The focus of this report so far has been on describing potential links based on recommendations out of the cluster, but another question that merits further examination is whether any channels triggering recommendations "into the bubble" can be identified from the network graph. Scant evidence of such recommendations was found using the chosen methodology, which on the one hand serves as a further indication of the cluster's isolation, but on the other hand also highlights the limitations of the methodology used. The recommendations displayed to users by YouTube are typically based on multiple individual factors, including the exact location of the user, his or her search history and subscriptions and the videos viewed to date. In order to obtain comparable data for the purpose of this study, it was necessary to exclude these factors during the analysis stage.

When YouTube cannot access further details about a user, it tends to recommend content of a more innocuous nature, and in particular content that is popular among many different user groups. It should therefore come as no surprise that YouTube – in the absence of more detailed information about a user's interests – does not recommend videos from the cluster on the fringes of extremism if the user watches music videos, for example. According to our analysis, however, at least two channels without extremist content prompted YouTube's recommendation algorithm to suggest videos from channels on the fringes of extremism as plausible recommendations; 9.2% of the videos recommended for "Eurasian Muslima" led to the cluster on the fringes of extremism, with this figure rising to 24.4% in the case of "Salsabil al-Almaniya". These channels categorically do not belong to the cluster, but they could unintentionally be acting as bridge channels or gateway channels.

"Eurasian Muslima" and "Salsabil al-Almaniya" appeal to viewers who on the one hand are more likely than the average YouTube user to view beauty and lifestyle vlogs[30] hosted on the website, but who on the other hand would also like to find out more about Islam, have considered converting to the Muslim faith or are looking for German-speaking Muslim role models. YouTube's recommendation system and the lack of alternative narratives mean that these viewers are confronted with videos which are published by channels within the cluster and which feature extreme Islamist and Salafi content, despite featuring titles that might appear harmless to an inexperienced audience.

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30 "Vlogs" stands for video blogs, which are a type of video diary.

A recommendation rate of 9.8% ("Eurasian Muslima") or 24.4% ("Salsabil al-Almaniya") for content on the fringes of extremism compared to non-extremist content should be regarded as significant, firstly because the design of the study meant that the videos recommended by the algorithm tended to be innocuous, and secondly because the rate was even higher (by a long way) for certain videos published by these two channels. Extremist content was particularly likely to be suggested in the case of videos showing the two YouTubers talking about their faith. Of the "Up next" videos recommended for "10 TIPPS UM NIE WIEDER FAJR ZU VERPAS-SEN [sic!] [10 WAYS OF NEVER MISSING FAJR AGAIN!]"[31] by "Eurasian Muslima", 40.38% had been uploaded by channels within the cluster on the fringes of extremism; the same figure was 37.5% for "SUNNITEN, SHIITEN ODER SALAFISMUS, WAS IST NUN RICHTIG?!? [sic!] [SUNNITES, SHIITES OR SALAFISM, WHAT IS RIGHT?]"[32] by "Eurasian Muslima", contradicting the overall thrust of this video, in which the YouTuber explains that she does not find it necessary to identify herself as either Sunni, Shiite or Salafi. The videos recommend-

ed by the algorithm alongside this video endorsed the opposite view, namely that a specific Sunni interpretation of Islam is the only legitimate faith.

Closer examination of the "Up next" recommendations displayed alongside "Eurasian Muslima" and "Salsabil al-Almaniya" confirmed the hypothesis that these channels primarily attract a female audience. As a result, almost all of the videos recommended by the algorithm that were published by channels on the fringes of extremism feature content that is designed to appeal to women. Examples include "So wird dein Mann dich lieben-Welche Dinge hasst der Mann an seiner Frau? [Get your man to fall in love with you – what kind of things does a man hate in a wife?]"[33] by the Salafi preacher Abul Baraa, or "Kopftuchverbot: Steht das Kopftuch im Qur'ān? ["Ban on the headscarf: is the headscarf in the Qur'an?]"[34] by the channel "Realität Islam", which has links with the Hizb ut-Tahrir movement. This methodology did not uncover any evidence of videos being recommended that were designed to appeal to men.

31 https://www.youtube.com/watch?v=C3gZzPATVuA (Last accessed: 26 November 2019; set to "private" on this date, previously freely accessible).
32 https://www.youtube.com/watch?v=7g-A949tJWo (Accessed: 26 November 2019).
33 https://www.youtube.com/watch?v=I0lbD3otPEo (Accessed: 26 November 2019).
34 https://www.youtube.com/watch?v=_M2PVfr4s_E (Accessed: 26 November 2019).

The network analysis revealed that that information videos and television documentaries were common in the lower part of the network graph and tended to lead into the cluster on the fringes of extremism; the relevant documentaries also appeared repeatedly in the "Up next" recommendations. With a few exceptions (videos that had "gone viral" at the time when the analysis was carried out), all the videos were documentaries or information videos about Islam in Germany or current affairs in the Middle East. Although users with links to the cluster on the fringes of extremism appear to have an ambivalent attitude towards documentaries (according to a sample of user comments below these videos), their attitude towards content falling under the category of "current affairs and infotainment" appears to be more positive. Parties working to prevent extremism might be able to use these findings as a starting point for "entering the cluster" and proposing alternative narratives. The following section explores the content of videos in the cluster.

# 5 | Qualitative investigation of the digital (Islamist/Salafi) ummah

The network analysis described above provided clear indications of the existence of a group of channels forming an information bubble. The preliminary "first impression screening" (FIS) led to the working hypothesis that the 210 YouTube channels in this group formed a cluster on the "fringes of religious extremism" (provisional category). Following a more in-depth qualitative and substantive analysis, it emerged that the Top 25 channels in this cluster were too diverse in nature to be characterised across the board as "Islamist" or "Salafi"; instead, they represent a hybrid group in terms of content, with more moderate statements of Islamic faith and ideals of piety existing alongside radical and in some cases also extremist positions. In October 2019, the Top 25 cluster comprised the following channels:
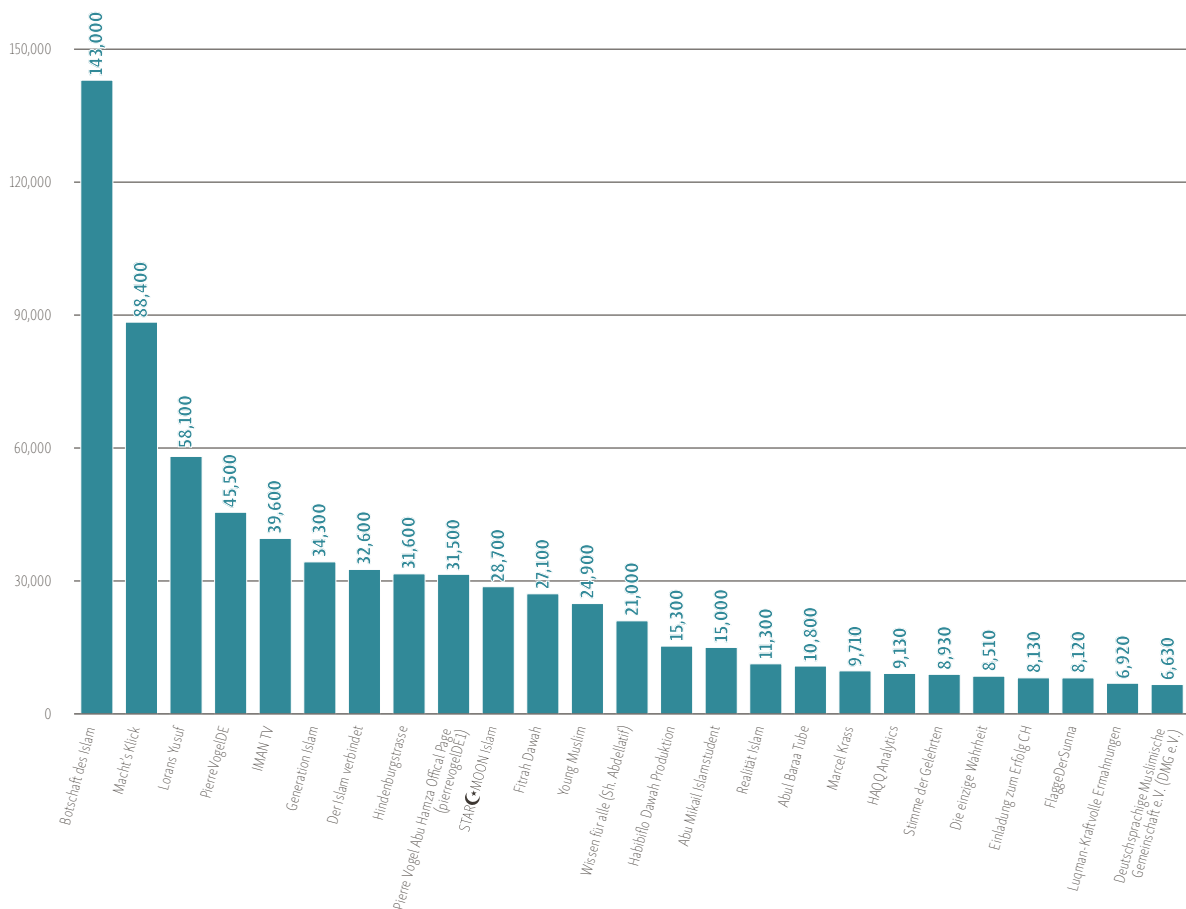
Figure 5: Subscriptions to the Top 25 channels in October 2019 (excerpt)

## a | Three content-based groups within the cluster on the fringes of extremism

The project team therefore faced the particular challenge of finding criteria that could be used to identify these channels, a way of defining them and an appropriate vocabulary for describing them at the same time as "doing no harm" in keeping with the project's guiding motto. Based on these preliminary theoretical considerations and the evaluations carried out up until that point using qualified substantive analyses of the Top 25 channels in the cluster on the fringes of extremism, the channels in the group were placed in certain categories that are explained below:

| channels broadcasting content that is clearly Salafi-inspired and hosting well-known personalities from the Salafi community in Germany,
| channels whose content is obviously influenced by Islamist ideology and that have links to the Hizb ut-Tahrir movement,
| channels broadcasting content that contains at least some components of Islamist or Salafi beliefs; these channels will be referred to as hybrid mission channels or hybrid channels in the remainder of this report.

All three of these categories can be divided into further sub-categories based on individual YouTubers and channels. In the first category, for example, it is useful to draw a distinction between the network formed by the three Salafi preachers Pierre Vogel, Marcel Krass and Abul Baraa, who appear to be active within the same sphere, and other Salafi preachers who tend to work in isolation. The category of Islamist channels includes not only channels with links to the Hizb ut-Tahrir movement, but also channels influenced by Turkish/nationalist Islamism. Broader transnational interactions are furthermore important for all three categories of channels, e.g. potential influences from the United Kingdom, the Balkan region, Saudi Arabia and the other Gulf states.

## b | Topic-centred user behaviour

Another assumption that can be made on the basis of the analytical activities carried out up until this point is however that the above distinctions are largely irrelevant to the searching and viewing behaviours of the information bubble's audience. Instead, YouTube users viewing videos within the cluster on the fringes of extremism are interested in the topics and content covered; many users watch videos from a range of different channels, and switch back and forth between channels in all three categories. The remainder of this exploratory study will therefore follow a cross-channel and topic-centred analytical approach as the most promising way of categorising content accurately. The findings that have emerged so far from the exploratory study make it possible to answer the following two questions:

1 What are the shared features of the channels in the three categories that have been identified?

2 What is the main thrust of the content featured by the hybrid channels in the third category, which falls in between the categories previously used?

### c | Tube channels: topics and content

The overall picture that emerged from the study was that all of the Top 25 channels in the cluster on the fringes of extremism feature content with a strong emphasis on missionary work, and are essentially rooted in Sunni Islam. Many of the videos appeared to have entirely harmless titles and topics at first glance, but application of the FIS method revealed a different story.

Most of the videos promulgate a non-jihadist but anti-Shiite ideology, at the same time as rejecting Sufi religious traditions as "unbelief". The preachers appearing on the Top 25 channels in the cluster reject the idea of a dialogue or trialogue on an equal footing with Christians and Jews (a concept mooted by various Christian, Jewish and Muslim institutions and individuals), and refer to segregation of the sexes and the use of head coverings as God's will. Germany's public media are repeatedly accused of perpetuating Islamophobia, reinforcing false representations of Islam, covering up cases of discrimination against Muslims and agitating against Islam. The Islamic teaching institutes that have recently been set up in Germany and the individuals who teach at them also come in for attack, and the German school and university system is frequently criticised or even rejected.

Many videos also contain claims to the effect that individuals, families or society as a whole are in crisis; warnings are often issued about the risk of dying in sin and being damned at the Last Judgement, the wonders of paradise are frequently praised, and the apocalypse and the constant threat of eternal punishment in hell are cited as key arguments. The target audience includes not only adolescents, but also young adults and families, most of whom have a background of immigration from predominantly Islamic countries. Many of the videos also take it for granted that the cultural heritage of most of their viewers is Turkish.

The videos on relevant topics viewed to date offer a very tightly circumscribed set of answers to the question of what Muslims are supposed to do or not to do. All of them show male preachers or speakers with an authoritarian demeanour, who claim in their sermons that they are promulgating "the only true teachings of Islam". Since these preachers rarely expound on their theological training or cite their sources, their legitimacy apparently derives solely from their acceptance and popularity among YouTube viewers. A summary comparison of the features listed above reveals many points of similarity with the description of Salafi movements in Germany published by Rauf Ceylan and Michael Kiefer.[35]

Overall, a tendency can be observed to obfuscate or to conceal deliberately extreme statements, categorical rejections of German society and defamatory comments about individuals with different opinions. Evidence of this can be seen from the following:

| the videos have entirely innocuous titles,
| the content itself does not have a particularly "militant" look or feel,
| the arguments are subtly structured,
| the presentation, style of speaking and layout are often extremely professional,
| care is taken to avoid breaking the law or violating YouTube's Community Guidelines, and
| the channels often refrain from citing Salafi authorities and sources (unlike the relevant Salafi channels).

35 Ceylan, Rauf and Michael Kiefer (2013). Salafismus. Fundamentalistische Strömungen und Radikalisierungsprävention. Bonn, BpB Lizensausgabe, Wiesbaden 2013. Ceylan, Rauf and Michael Kiefer (2018). Radikalisierungsprävention in der Praxis. Antworten der Zivilgesellschaft auf den gewaltbereiten Neosalafismus. Wiesbaden.

## | Religion and theology

As noted above, the primary target audience comprises people born into the Muslim faith, and many of the videos assume that their audience has a Turkish sociocultural background. At the same time, however, all of the YouTube channels in the cluster also perform a missionary function by pursuing the goal of converting non-Muslims. In keeping with this goal, the videos express clearly negative opinions about all other religions and non-religious ways of life, and a number of channels (such as "STAR&MOON Islam" or "Fitrah Dawah") engage directly in polemics against Christianity and Christian missionaries. No effort is made to enter into dialogue, for example by supporting initiatives such as those proposed by the Protestant and Catholic churches together with Jewish and Islamic associations and individuals.

All of the channels are rooted in Sunni Islam, with a heavy emphasis on the Qur'an and Sunnah and the ways of life modelled by the Prophet and his companions. Shiite or Sufi beliefs are categorically rejected or referred to as inferior or sectarian; for the most part, however, they are simply ignored. Overall, each channel attempts to present an extremely homogeneous picture of Islam with no room for friction, contradictions or open-ended questions that lack a single right answer, and all of the channels are similar in the emphasis they place on the importance of a uniform and single ummah.

The speakers in the videos are characterised by an extremely self-confident demeanour; in spite of their humility they attempt to convey, the content of their speeches often reveals a deep sense of their own superiority. The following is a typical message that emerges from their videos: "God is with me! I alone speak the truth, and therefore I will also be rewarded by God. God will ultimately help me to success and victory. Any criticism against me is merely confirmation that I am on the right path."

These dichotomous arguments are dominated by a theology of fear. Central topics and key concepts include heaven and hell, the angels who record all good and bad deeds, the tempting devil in human form who is tolerated by Allah, sin and a true and virtuous Muslim life, culpability for tempting brothers and sisters, acting as a role model for others, betrayal and destruction of the ummah, a righteous life and punishment by God, and the merciful God who rewards those who interpret His teachings in the same way as the relevant channel.

## Gender

All of the videos viewed to date show male speakers or have male voiceovers, but the questions and issues actually covered are specifically geared towards women; the "correct" way a Muslim women should behave and the "correct" clothes she should wear appear to be topics of particular interest. All of the channels espouse a restrictive and one-sided mentality, particularly as regards the use of the headscarf to cover up and the lack of segregation between men and women in German society, all channels express themselves restrictively and in a one-sided manner. Examples of topics relating to "Muslim women" covered by the channels include the correct way to cover up, the superiority of a secluded life, friendship, modesty, honour, love, getting and being married and raising children. Overall, women are portrayed as requiring special protection because of the myriad of risks to which public life exposes them (as proven by Islamic sources). She must therefore be particularly protected. For example, the channel "Macht's Klick" recommends a "digital hijab" to Muslim women, or in other words comprehensive rules governing their social media use which prevent them from being recognised as women at all.

Men are also assigned special gender roles that are intended to reflect the position traditionally occupied in society by a Muslim man. They are told to "cover up" and act with modesty by distancing themselves from German society through their behaviour and appearance; for example, they are warned against swimming in public pools or participating in mixed-sex swimming lessons. Generally speaking, the advice given perpetuates the ideal of a society in which the different sexes play different and unequal roles and are segregated from each other in public.

## Different generations

A wide range of ages are targeted, including young adults and young families as well as adolescents. Individuals in older age categories are also likely to find many of the videos published by the channels appealing, since the topics covered are frequently cross-generational in nature; in particular, they include crises that can occur at any stage of life, such as unemployment, problems in a marriage or relationship or identity crises.

All of the channels share a patriarchal ideal of the family, and recommendations to listen to your elders or to follow their example are common, as are recommendations to travel to Turkey during Ramadan or to seek guidance primarily in the piety and religion of your family's country of origin instead of looking for role models in German society. Within families, men have a significant duty of care towards women; in particular, brothers are responsible for ensuring that their sisters behave correctly from a moral and religious perspective. Frequent references are made to the concept of "honour" and to the risk of sin.

## Socialisation

Many of the topics are not aimed solely at individuals who have "failed" in social and economic terms; the target audience also includes well-off Muslims and non-Muslims with good jobs and families. Viewers are frequently warned against the risks of the world of entertainment and consumption, and criticism is levelled at those who visit shisha lounges, concerts or festivals such as "Festi Ramadam". Other themes that frequently appear include the prohibition on receiving interest and the hazards of a fashion-conscious lifestyle. The videos recommend that life should be centred primarily around a mosque and prayer times, and that friendship and a community should preferably be sought among other Muslims who are serious about their faith. Claims that it is "necessary" to segregate oneself from mainstream German society are backed up using these religious arguments.

## Education

The target audience is not limited to educationally disadvantaged individuals, since many of the videos are intellectually demanding and produced for well-educated viewers. At the same time, however, the German education system is often categorically rejected; in particular, attacks are repeatedly levelled at the newly established institutes for Islamic religious studies and their lecturers, who are mentioned by name. Despite all of that, however, the videos recommend that viewers should turn the German education system to their advantage by gaining the qualifications required for a professional career, so that they can hasten the spread of Islam throughout German society.

The videos are designed in such a way as to embody their overall message in a clear apportionment of blame, an unambiguous viewpoint or a call to action. Additional details are provided only as a means of reinforcing or consolidating the relevant position, and – as is the case for all the topics discussed – background information or controversial opinions are deliberately ignored or distorted.

## Crises, conflicts and apocalypse

Many of the videos presume that the members of their audience are confronted with problems and major crises that they need to overcome. The range of topics covered is broad, since the messages conveyed in the videos published by the channels relate to pastoral and religious matters of a cross-generational nature; a frequent trope is the wholesale crisis facing the world on a political, economic, cultural/religious and ecological level and at the level of people's personal lives. An atmosphere of demise and decline is conjured up, from which there is only one way out: a "return to Islam".

This mood of crisis meshes well with the understanding of the Islamic history of salvation and apocalypse that is either covered extensively or taken for granted by many channels in the group on the fringes of extremism. The act of creation by Allah is associated with the creation of the angels, the jinn and ultimately mankind. The period of Jahiliyyah (the Age of Ignorance) was characterised by the emergence of a long series of prophets, who warned humankind and proclaimed Allah's message; unfortunately, humans invariably and repeatedly ignored this message. Finally, the Prophet Mohammed was sent to proclaim the true and complete message of Allah to humankind one last time, by revealing the Qur'an. A brief Golden

Age ensued, but the centuries that followed were marked by a gradual deterioration. The era in which we are living is characterised by the dominance of the West and its practices of colonialism, slavery, exploitation and structural violence, aimed in particular at Islamic countries and Muslims; the latter are therefore also suffering from post-colonial trauma and feelings of backwardness and inferiority, while the West is prospering. Ultimately, a Muslim must continue working to bring about a better society, even when this appears to be a hopeless task – this fits in with Allah's overall plan, which is predicated on the belief that the world will end. During the end times, the Prophet Jesus will return and fight alongside true Muslims against Christians, Jews and the rest of the population, all of whom will be vanquished. A new glorious age will reign for a short time, until everything ends on the Day of Judgement and individuals are sent to either heaven or hell.

The narratives promulgated by the YouTube channels in the group on the fringes of extremism appear to respond very effectively to the emotional needs of their public, building a historical framework which they perceive as coherent. The "salvation history" angle is also useful in that it provides plenty of material for epic videos with an extremely high entertainment value;[36] the Jinn Wars, historical narratives about the Prophet's companions and the war heroes of Islamic history and visons of apocalyptic battles of the Last Days are very popular variations on this theme.

## | Politics and society

Political topics and current affairs have receded in importance somewhat compared to previous years, and a comparison reveals that view counts are lower on average for videos covering these topics. Yet a categorical rejection of German society, or Western forms of society in general, is a consistent theme running through all of the content, and hefty accusations are levelled repeatedly and almost in passing at the entire political system and all media outlets. The latter are allegedly responsible for agitating against Muslims and for the general discrimination that Muslims face in society; once again, prominent Muslim individuals who play an active role in German society are frequently mentioned by name and attacked.

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36  See the section on the stylistic elements of "Epic storytellers".

## | Negative stereotypes

Anyone who holds different opinions, who belongs to a different religion or who follows a non-religious way of life is categorically and repeatedly dismissed and defamed, as are German society and the state. Sometimes this takes place openly and as an explicit campaign, but often the message is well-camouflaged and subtly conveyed in videos through negative examples. These negative stereotypes include:

- Christians, Jews, followers of other religions and individuals who lead a secular life,
- Muslims who think and act differently are the subject of targeted attacks; examples include the current "hijabista"[37] trend, Muslim comedians and artists, and Muslim bloggers who publish non-religious content on the Internet,
- Muslim theologians at German universities and Muslim intellectuals,
- Shiite and Sufi Muslims,
- right-wing radicals, and
- evangelicals and missionaries.

## d | Hybrid channels

In addition to the features described above that are shared by all of the Top 25 channels in the cluster on the fringes of extremism, the third category – which contains channels that are neither clearly Salafi nor clearly Islamist – exhibits a number of special features. This group include the two most popular channels in the cluster on the fringes of extremism: "Botschaft des Islam" and "Macht's Klick". Although a number of different people appear in the videos published by "Botschaft des Islam", those published by "Macht's Klick" are dominated by the presence of a single identifiable figure. It has not yet been possible to elucidate the links between these two channels, either within the cluster on the fringes of extremism or in the broader landscape of social media.

Like the other categories, the category of hybrid channels uses religious arguments based on the Qur'an and Sunnah, with occasional references to well-known classical Sunni texts or Hadith compilations. To date, however, no indications have emerged from the qualitative evaluation of references to popular works or scholars from the Salafi tradition, which are typically cited in videos published by Salafi and Islamist channels as a means of legitimation and proof of a sound argument. Arabic terms such as "aqidah", "manhaj", "takfir" or "tawhid" are used correspondingly rarely for argumentative purposes, whereas they are frequently cited or explained in Salafi-inspired videos and have played a central role in this context to date.[38]

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37  "Hijabista" are young Muslim YouTubers who wear the headscarf in a fashionable way and act in a self-confident manner.
38  Maher, Shiraz (2017). Salafi-Jihadism. The History of an Idea. Penguin Books, Random House UK. Said, Benham T. and Hazim Fouad (eds.) (2014). Salafismus. Auf der Suche nach dem wahren Islam. BpB 1454. Bonn. Lohlker, Rüdiger (2016). Theologie der Gewalt. Das Beispiel IS. Vienna. Lohlker, Rüdiger (2017). Die Salafisten. Der Auf-stand der Frommen, Saudi-Arabien und der Islam. Munich.

Nevertheless, a lot of what is said in the videos is indicative of certain characteristic traits of Salafi beliefs and viewpoints. As an example, the word "takfir" is entirely absent from the content published by these channels, but the concept is invariably applied in practice, since anyone who does not agree to the tenets of faith being proclaimed is denounced as an infidel and a sinner. The Salafi doctrine of loyalty and disavowal, or association and dissociation ("al-wala' wal-bara'") is also put into practice as a call to action, even if it is never explicitly mentioned. Islamic apocalyptic ideas and the threat of punishment in hell are also a common theme appearing in many videos.

As in the case of the videos published by the first two categories of channels, the clear and simple instructions for action and advice promulgated by the hybrid channels are based on a dichotomous view of the world: true and false, good and evil, us and them, believers and unbelievers. The admonitions issued leave no room for reflection, and the hybrid channels do not talk about any other options that should be taken into consideration by those searching for answers; certainty rules supreme over uncertainty.

The videos published by hybrid channels that have been investigated to date are also reticent on politics; their messages are characterised by a missionary zeal and are often aimed at providing pastoral guidance or helping people to lead an Islamic way of life and demonstrate a uniform piety. It would therefore appear from the current analytical findings that the content of the hybrid channels is influenced by Salafi and Wahhabi ideologies, although many points of commonality exist with more widespread fundamentalist, conservative or orthodox moral beliefs and theologies.

The hybrid channels are important not only because they are among the most popular channels within the cluster on the fringes of extremism; based on the links between these channels and others, they occupy a position slightly outside the core of the cluster, which is dominated by channels that can be unambiguously identified as Salafi-inspired or Islamist-inspired. Their position on the network graph is also a clear indication of their intermediary role between the cluster on the fringes of extremism and users' broader areas of interest outside this cluster. The hybrid channels "Macht's Klick" and "Botschaft des Islam" thus appear to be the most important gateway or access channels – not only are they extremely well established as the most popular channels within the cluster existing on the fringes of religious extremism, but they are also popular and well-known outside this cluster. A topic for more detailed analysis in future is the question of whether these channels do in fact provide access and promote entry to a radical and extremist Islamic community.
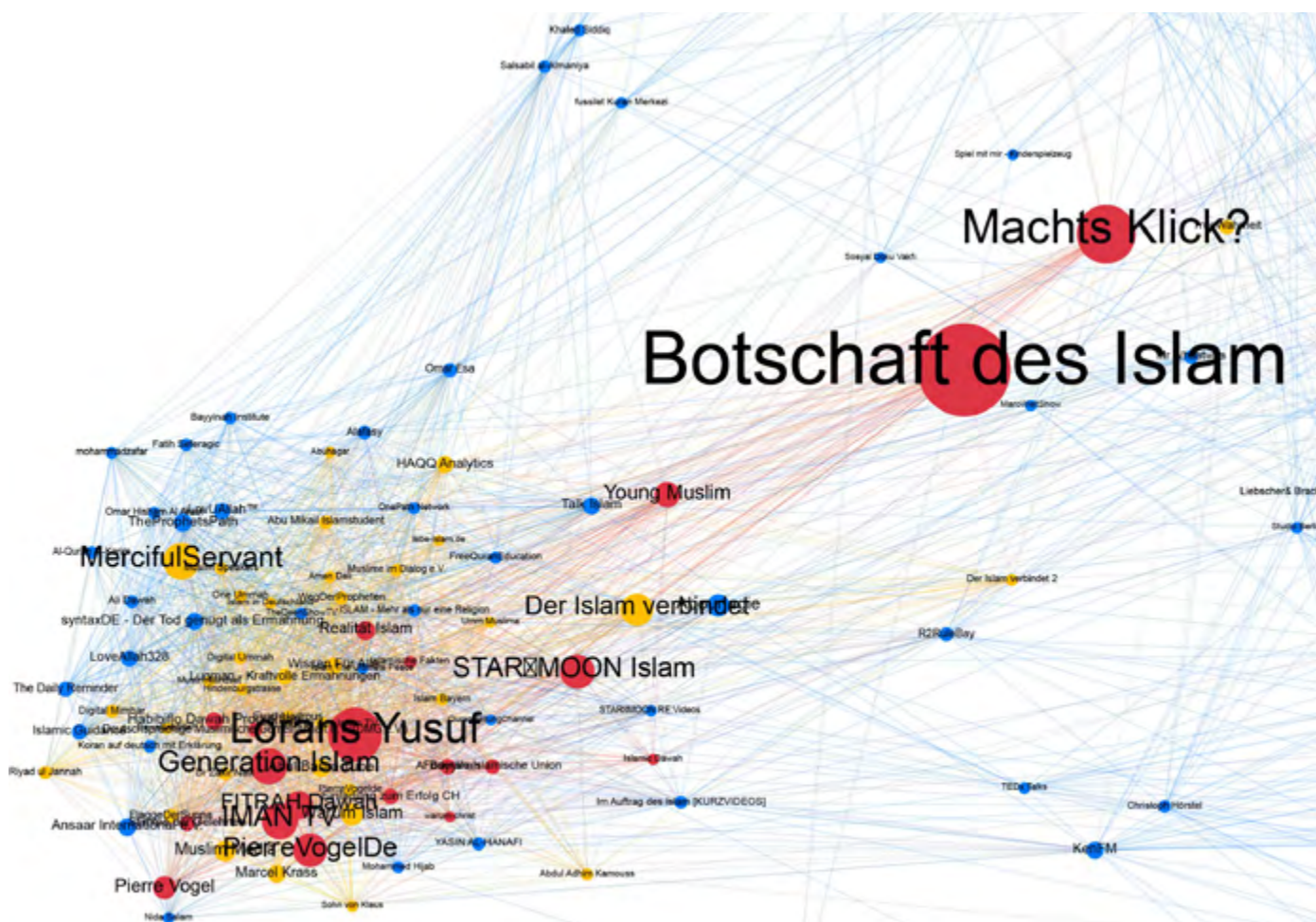


Figure 6: A network graph showing the cluster of channels on the fringes of extremism. The channels "Botschaft des Islam" and "Macht's Klick" are very obviously somewhat outside the cluster, suggesting that they might act as gateways.

It is likely that further topic-centred research into the cluster on the fringes of extremism will reveal a more differentiated picture than these initial outlines and hypotheses, and perhaps bring to light additional topics and campaigning issues. Overall, the viewers of videos published by channels within the cluster on the fringes of extremism are confronted with an extremely homogeneous interpretation of Islam that lacks any major contradictions or tensions, even though these latter have been very much part of the broader context of "real-life" Islam outside this information bubble ever since the religion was founded; the German-speaking cluster of channels is well on the way to establishing a digital ummah with a uniform understanding of Islam that comes very close to the ideas proclaimed as the Salafi ideal. The following section examines the stylistic elements used to convey this content by the videos in the cluster.

# 6 | Diversity of stylistic elements

Epic stories, anasheed or the "friendly Imam from next door"– the dawah videos published online nowadays are as varied as their target audience, but the polyphonic nature of the different forms, styles and personalities is nevertheless surprising. The stylistic elements of the channels on the fringes of extremism extend over the entire horizon of the YouTube landscape, and are adapted to suit the relevant target audiences and their different tastes – not only in terms of form and style, but also in terms of topic and language. The same speakers, preachers and even channels often use several different stylistic elements to achieve the greatest possible impact. The following section explores a number of typical stylistic elements, but this exploration is by no means exhaustive; the YouTube landscape and its individual components are constantly evolving, and the scope of this project was too limited for a more detailed technical analysis of the material.

### a | The friendly Imam from next door/teacher/traditional preacher

In an attempt to keep the threshold for entry to the fringes of religious extremism as low as possible, many of the content creators go to great lengths to appear approachable and friendly. They avoid using difficult quotes from the Qur'an or Hadith, and they convey content clearly, comprehensibly and in simple terms. They also cite lots of examples drawn from the environment in which viewers live as a basis for explaining how practising Muslims should behave according to their interpretation of the religion. The videos tend to be straightforward in stylistic terms, showing merely a simple background with a speaker talking in a calm manner. They are typically short – between two and ten minutes long – and have an "Instagram" style that is appealing to young people. Other preferred backdrops for the individuals speaking in the videos include bookshelves full of books or the natural world, perhaps as symbols of erudition or proximity to creation.

### b | Recorded sermons

Recorded sermons are characterised by traditional stylistic elements that do not require much in the way of production effort. A single camera focused on a preacher in a mosque is used to record a sermon given in German; the camera faces only towards the preacher, meaning that the members of the congregation are not shown. In certain cases, the sermon is overlaid with sound effects or music at the post-production stage to boost the emotional impact yet further, and the content consists of extremely vivid examples. The videos embodying these stylistic elements are typically somewhat longer than those embodying other styles; the shortest are generally around 10 minutes long, but running times of 50 minutes are not unusual (a "khutbah" or Friday sermon is between 20 and 40 minutes long, for example). The topics covered in the sermons often centre around a "correct" Muslim way of life, morals and values and the creation story. One of the reasons why these recorded sermons are often uploaded by channels – in addition to their ease of production– might be that they help to boost the religious legitimacy of the preacher in viewers' eyes, which has a knock-on effect on the credibility of other videos published by the same channel.

### c | Street dawah

Street dawah videos represent another group of stylistic elements with a long tradition, and a number of channels concentrate almost exclusively on this way of transmitting the faith; some even organise face-to-face "dawah" workshops that are advertised in their videos. Through the use of skilled rhetorical practices and clever video-editing techniques, it invariably appears that the dawah practitioners have consistently been proven right and have won over their targets (passers-by who are often labelled on-screen as "atheists", "Christians" or even "missionaries"). This suggests to viewers that Islam is the only true religion based on the soundest principles, and that it always has an answer on hand for anyone who expresses doubts. The aim is not in fact to persuade the passers-by (although this occasionally happens, and in some cases a conversion is explicitly celebrated), but to voice arguments that strengthen viewers' pre-existing beliefs. The videos are typically between 20 and 40 minutes long, and often form part of a broader campaign. They often attract a great deal of public attention; the "Read!" campaign, which took place online and offline and was banned in 2017, is a good example of this phenomenon. A dawah practitioner who is depicted in videos as always being right can exert a highly persuasive influence on viewers.

### d | Epic storytellers

"Epic storyteller" videos are most notable for their powerful imagery and eloquent language. The channels typically use moving-image content from various computer games (Figures 7 and 8) and their trailers, but they also use stills (Figure 9), stock photos, television broadcasts (in some cases) or spectacular photographs or tracking shots of the natural world; all of these are edited together, and the collages are overlaid with audio recordings of stories. The voice telling the story is male and deep (described in a comment below one of the videos as "bleak" and "ferocious"), and it is likely that a deliberate decision is made to use individuals sounding like the actors who produce voice-overs for action film trailers or who appear as the voice of "God" or the Prophet in films and pop culture. The videos within this category also incorporate loud and urgent cries emphasised with echoes, and generally subtitle their videos in German. The soundtracks for these videos are characterised by emotive music (taken from computer game soundtracks) or anasheed; the videos are generally between 10 and 20 minutes long, and generally contain religious (Sunni) stories about the apocalypse, death, the devil, sins and temptations, or "historical" stories about "opposing" (Islamic) schools of faith. Many of the videos also centre around conspiracy theories, stories about the forefathers or about jinn and angels, and codes of religious conduct. A noticeable feature of these videos is the very limited use of Qur'an quotes and Hadith to support the message being conveyed in the stories; it might be concluded as a result that these stylistic elements are aimed less at conveying information about Islam, and more at appealing to users and persuading them on an emotional level.
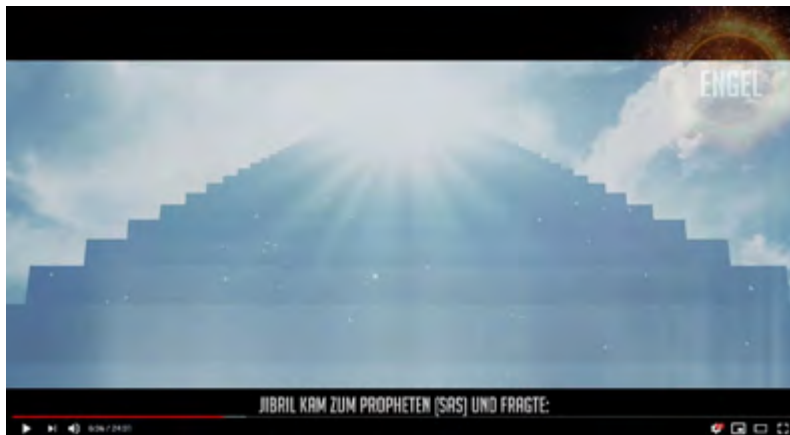
Fig. 7



Fig. 8



Fig. 9

Figure 7: Screenshot https://www.youtube.com/watch?v=VRej7LdjSvU&t=
Figure 8: Screenshot https://www.youtube.com/watch?v=rCRTs8JipJE
Figure 9: Screenshot https://www.youtube.com/watch?v=_d5QWJclmtg

### e | Stylistic elements from the world of television

Certain channels use a "studio" or "documentary" style to offer political education influenced by their Islamic (or Islamist) worldview as well as religious expositions, presumably with the aim of conveying a sense of integrity and authenticity. The "studio" is either simulated using floor-standing microphones and display stands, or superimposed at a later point using green-screen footage. Typical features of these documentary-style videos include edited-in television clips showing war scenes or injured children. Although Western historians and scientists are generally described as unreliable "enemies", documentary-style videos make frequent reference to these individuals, presumably for the purpose of adding legitimacy to the videos. These stylistic elements are characterised by the forefronting of current political topics, which play only a secondary role in the other stylistic elements. Topics of particular interest include the Syrian conflict, ISIS, political decisions by Western European countries and the USA, the victimisation of Muslims around the world and in Germany and the compatibility of science and religion.

### f | Mirror channels (preacher portals)

Four of the Top 25 channels are mirror channels;[39] these channels include "Habibi-flo Dawah Produktion" and "Stimme der Gelehrten". They do not confine themselves to any specific stylistic elements, but instead perform roughly the same role as a magazine. They "mirror" videos uploaded by other channels and translate sermons from other languages (or subtitle them in German); they do not create any material of their own. There is no focus on specific Salafi preachers, and the content is not interpreted, evaluated or linked. Mirror channels therefore serve as a source of guidance and an archive for the interested parties who make up their target audience. They upload videos on an almost daily basis, which means that they qualify as extremely active. The production date of the sermons and videos that are mirrored appears to be irrelevant, and there is no clear way for users to identify the parties responsible for the channels. The mirror channels host videos by individuals who have been active as leading figures within the German-speaking Salafi community for many years, such as Pierre Vogel, Abul Baraa, Neil bin Radhan, Dr Zakir Naik, Eyad Hadrous, Ibrahim Abou Nagie or Marcel Krass. The mirror channel "Einladung zum Erfolg" also hosts videos from the channel "Botschaft des Islam", which is categorised as a hybrid channel for the purpose of the project.

The mirror channel "Stimme der Gelehrten" occupies a special position in this respect, since it primarily hosts translated and subtitled speeches or sermons by preachers from the Wahhabi/Salafi movement. Some of these are recordings of sermons and speeches given in mosques or clips from television programmes, such as the Saudi Arabian "Almajd Channel" that belongs to the Almajd TV Network operated by the Saudi Arabian businessman Fahad Abdulrahman Alshimeimri. This network of satellite television channels is heavily influenced by Salafi ideology and targeted at a range of different audiences, including children as well as adults.

The mirror channel "Hindenburgstraße" (whose name refers to the famous Salafi mosque located on Hindenburgstraße in Hamburg) has the highest subscriber count of all the mirror channels and is ranked eighth in the Top 25. This channel also has the most varied selection of all the mirror channels, ranging from speeches by the aforementioned Salafi preachers and recordings of Wahhabi/Salafi preachers (also hosted on "Stimme der Gelehrten") through to clips from videos produced in other countries and translated into German.

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39  A mirror channel exclusively uploads videos and content from other channels. In this context, "mirroring" refers to the uploading of identical data sets.

# 7 | Evolving popularity of the Top 25 channels in 2019

## a | Video production numbers
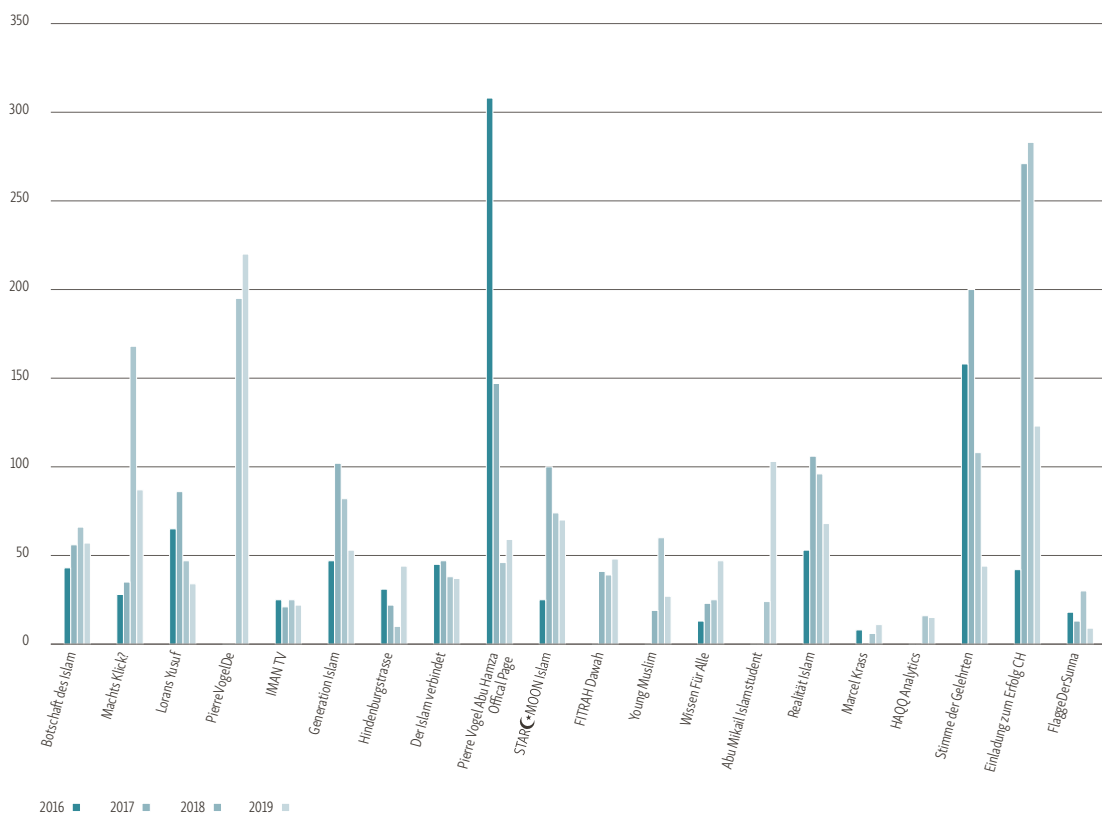


The Top 25 channels on the fringes of extremism upload a staggering amount of videos to YouTube, and a conspicuously large number of them consist of newly created content. The diagram above provides a retrospective view of the number of videos uploaded to YouTube during the period from 2016 up to and including November 2019, based on the information available in 2019 and omitting the following channels

to make the diagram easier to understand: AbulBaraa Tube (1,086 videos from 2018 to 2019) and Habibiflo Dawah Produktion (4,008 videos from 2016 to 2019). The mirror channels discussed above represent a special group among the Top 25 channels, and are listed below in order of their popularity, based on subscriber counts in 2019:

| Subscription ranking | Channel | Total number of videos |
|---|---|---|
| 7 | Hindenburgstraße | 1,925 |
| 14 | Habibiflo Dawah Produktion | 10,095 |
| 22 | Stimme der Gelehrten | 1,785 |
| 24 | Einladung zum Erfolg CH | 689 |

The clear leader (with 10,095 videos) is the mirror channel "Habibiflo Dawah Produktion", and this channel also consistently uploads the most videos per year. Another Salafi mirror channel, "Einladung zum Erfolg CH", also came high in the ranking, but the number of videos uploaded by this channel dropped markedly from 2017 onwards. These figures are not particularly surprising, since many of the videos uploaded by the two channels feature preachers who are well-known within the Salafi community in Germany.

When the channels operated by certain individuals in the Salafi community are also taken into account (e.g. "Abul Baraa Tube" for Abul Baraa, and "PierreVogelDE" and "Pierre Vogel Abu Hamza Official Page" for Pierre Vogel), it becomes clear that they are among the hardest-working video producers in the cluster on the fringes of extremism. A total of 957 videos were uploaded to "Abul Baraa Tube" in 2018, which was more than the number uploaded by the leading mirror channel in the same year (666, by "Habibiflo Dawah Produktion"). On average, Abul Baraa

uploaded between two and three videos per day to this channel in 2018; in 2019, he uploaded the same number on average per week. The most productive year for Pierre Vogel was 2016, when he uploaded an average of five videos per week, but in 2017 and 2019 he nevertheless still uploaded one or two videos per week.

Islamist channels that espouse the ideology of Hizb ut-Tahrir, such as "Generation Islam" and "Realität Islam", are consistently in the upper middle range of the ranking as far as the number of videos produced is concerned. During the period under investigation (2016-2019), 2017 was the most productive year for both channels, with over 100 videos uploaded. There has been a consistent downturn in the number of videos uploaded by both of the channels since then, with both channels producing an average of one or two videos per week in 2019.

The two highest-ranking channels in the Top 25 on the fringes of religious extremism are "Botschaft des Islam" and "Macht's Klick", which are currently classified as hybrid

channels for the purposes of the project. "Botschaft des Islam" produced a relatively consistent number of videos between 2016 and 2019; the number fluctuated between 43 and 66, i.e. one video per week on average. "Macht's Klick" is a much more active channel. Although it uploaded only 28 videos in 2016 and 35 in 2017, this figure jumped to 168 in 2018 and then reduced by half to 87 in 2019 (which still means that the channel consistently uploads almost two videos per week).

Another attribute shared by "Macht's Klick" and "Botschaft des Islam" is the fact that they repeatedly produce new videos conveying their messages and topics. One factor in their success appears to be that they adhere to a regular schedules of uploads (one or two videos per week) and deliver fresh content instead of sometimes "recycling" old videos or becoming inactive for a period of time (as is sometimes the case with Pierre Vogel).

The number of videos uploaded appears to be another factor in the success of channels on the fringes of extremism, since almost all of the Top 6 channels have uploaded more than 260 videos. This hypothesis is confirmed if view count is used as a measure of popularity instead of subscription count:

| Ranking by subscriptions | Videos | Ranking by views | Videos |
|---|---|---|---|
| Botschaft des Islam | 299 | Botschaft des Islam | 299 |
| Macht's Klick | 324 | Lorans Yusuf | 267 |
| Lorans Yusuf | 267 | Hindenburgstrasse | 1,925 |
| PierreVogelDE | 361 | Macht's Klick | 324 |
| Iman TV | 103 | Pierre Vogel Abu Hamza Official Page | 1,741 |
| Generation Islam | 357 | Iman TV | 103 |

A channel can only achieve a high ranking in terms of popularity if it has uploaded a large number of videos; this is no guarantee of success, however, since only one of the mirror channels appears in the Top 6 channels, and the channels that have uploaded the most videos only appear in the Top 6 if view counts are used as a basis for the ranking. By way of contrast, the channel "Iman TV" appears in the Top 6 based on both view count and subscription count, even though it has uploaded relatively few videos to date (only 103).

**Certain limitations** are inherent to this approach; for example, when estimating the number of videos produced per year, it is important to remember that old videos are often re-released, and this is particularly true in the case of Pierre Vogel's channels. A feedback loop for corrective action should therefore be incorporated into further long-term analysis of the trends, but this lies outside the scope of the exploratory study carried out within the framework of the ABAT project. Furthermore, this report does not cover all of 2019, even though this year falls into

the period under investigation, since the month of December is missing. It is highly unlikely that this missing month would alter the figures significantly, however.

The numbers in the diagram are subject to the proviso that videos might have been uploaded and then deleted again; no data were collected in this respect, however. This means that a number of different options exist that cannot be checked retrospectively owing to a lack of data:

| the channel did not yet exist, or
| the channel did exist, but had not uploaded any videos, or
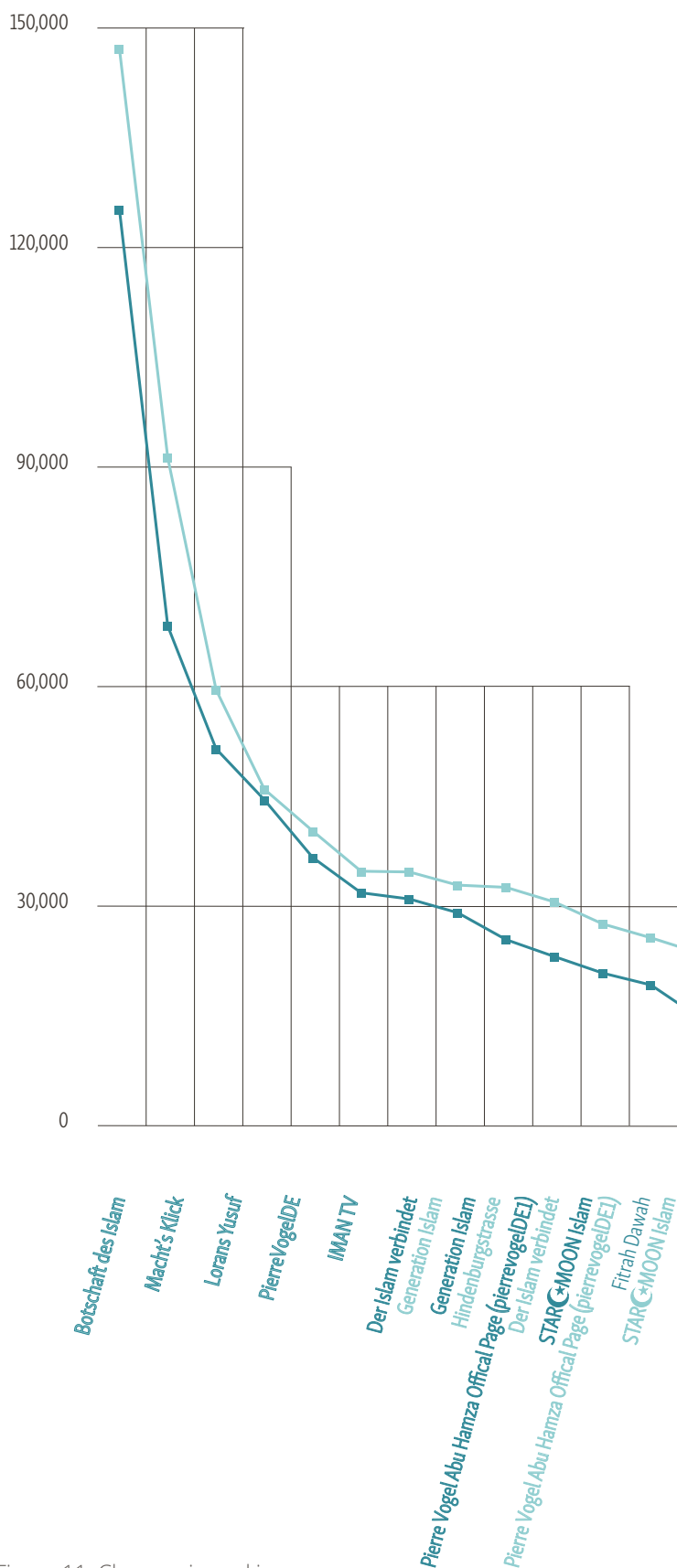| the channel did exist, but the videos were later deleted.

Subscribers



Figure 11: Changes in ranking among the Top 25 in 2019

There were no major changes in ranking over the course of 2019. The channel "Botschaft des Islam" was consistently ranked in first place, and would remain top of the ranking even if view counts were used as a basis instead of subscriber counts. It can therefore justifiably be called the most popular of the channels in the cluster on the fringes of extremism.

There were also no changes in the ranking of the channels in second to fifth place ("Macht's Klick", "Lorans Yusuf", "PierreVogelDE" and "ImanTV"), but a number of changes could be observed in respect of the lower-ranking channels. The mirror channel "Hindenburg" made the largest jump up the ranking of all the channels, from 19th place (April 2019) to 7th place (November 2019). The channel "Abul Baraa Tube" also improved its ranking significantly, moving from 20th place in April to 16th place in November. By way of contrast, the ranking of channels with links to Hizb ut-Tahrir improved only slightly; "Generation Islam" moved two places upwards, from eighth to sixth place, and "Realität Islam" maintained its place in the bottom mid-range, in 17th or 18th place.

■ May 08, 2019
■ November 29, 2019
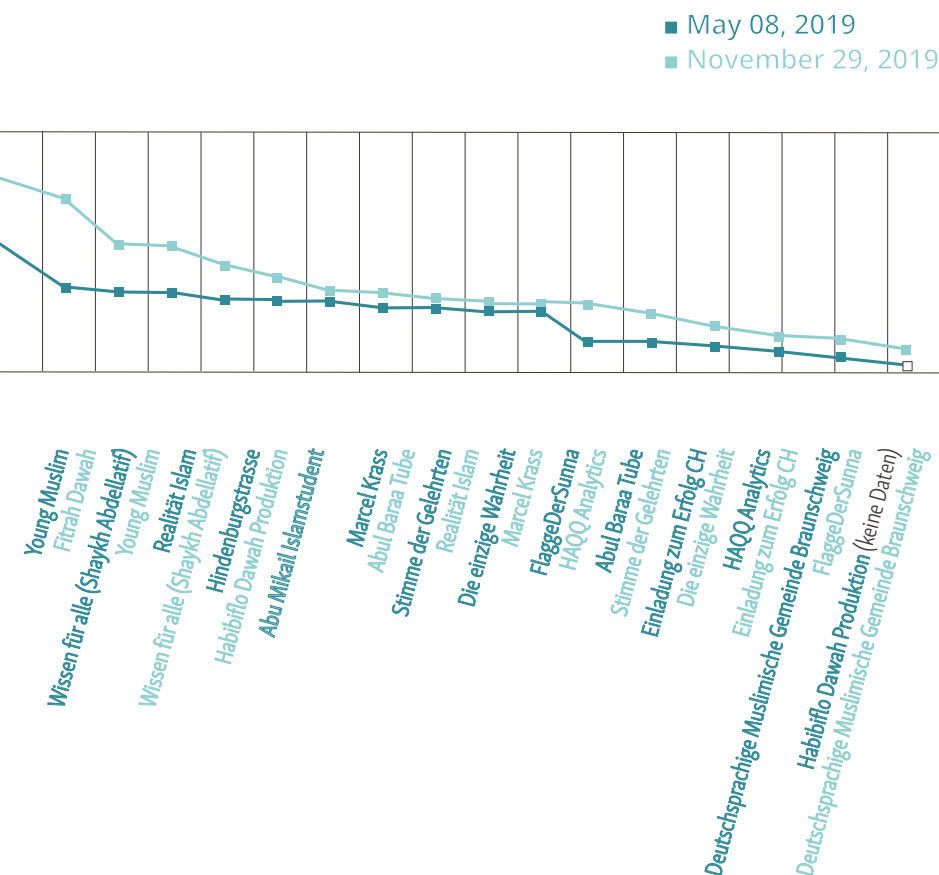
A number of channels had not yet published subscriber counts at the start of the investigation period or by the date when the database was first built. These channels were therefore only incorporated into the ranking over the course of year, as and when their subscriber counts became available. They include channels such as "STAR☾MOON Islam" (10th in the ranking in November 2019), "Habibiflo Dawa Produktion" (14th), and "al-Bayyinah", a channel which should be in the lower half of the ranking list since it has around 7,000 subscribers, but which has not yet published its subscriber count. The channel "Kahlid Musawwir" was also only added to the database part-way through the year after investigations had been ongoing for some time, and occupies a position in the middle of the ranking (15th place) with around 17,000 subscribers.

## c | Ranking by subscriptions or views?

If the number of views calculated by YouTube is used as a basis for ranking the channels instead of subscriber counts, the overall ranking changes considerably. Only one channel stays in the same place: "Botschaft des Islam", which remains unchallenged at the top of the ranking. Thirteen of the channels drop down the ranking while eleven move upwards, in some cases by a long way in the relevant direction. Four of the channels drop by between 7 and 10 places, while another four drop by between 3 and 5 places. In return, two of the channels rise by 9 or 10 places, and another seven rise by between 4 and 7 places. The remaining channels remain close to their starting point.

A comparison of these changes against the number of videos uploaded reveals that channels offering a very large number of videos tend to move upwards in the ranking if view counts are used as a basis. Exceptions exist to this rule, however: even though "Abul Baraa Tube" has uploaded 1,312 videos (an above-average number), it drops by one place instead of rising, and the channel "Die einzige Wahrheit" rises by an impressive 10 places even though it has only uploaded 11 videos.

# Top 10

highest-ranking YouTube channels in the Top 10 on the fringes of religious extremism

| | based on SUBSCRIPTIONS | based on VIEWS | changes in RANKING |
|---|---|---|---|
| 1. | 147.000 — Botschaft des Islam | 21.895.822 — Botschaft des Islam | 0 |
| 2. | 91.100 — Macht's Klick | 10.489.426 — Lorans Yusuf | -2 |
| 3. | 59.400 — Lorans Yusuf | 8.567.872 — **Hindenburgstrasse** | +1 |
| 4. | 45.800 — PierreVogelDE | 8.327.634 — Macht's Klick | -10 |
| 5. | 40.100 — IMAN TV | 6.597.291 — Pierre Vogel Abu Hamza Offical Page (pierrevogelDE1) | -1 |
| 6. | 34.600 — Generation Islam | 5.730.533 — IMAN TV | -7 |
| 7. | 34.500 — **Hindenburgstrasse** | 4.717.803 — **Habibiflo Dawah Produktion** | +4 |
| 8. | 32.700 — Der Islam verbindet | 4.288.873 — Wissen für alle (Shaykh Abdellatif) | -1 |
| 9. | 32.400 — Pierre Vogel Abu Hamza Offical Page (pierrevogelDE1) | 4.147.508 — Der Islam verbindet | +4 |
| 10. | 30.400 — STAR•MOON Islam | 3.446.218 — Fitrah Dawah | -1 |

# 8 | Conclusion

The aim of the ABAT study was to carry out an initial exploration of the trends, actors and content characterising a hitherto undefined group of YouTube channels existing on the fringes of extremism. This report examines this group from four different perspectives: network, content, range of stylistic elements and (evolving) popularity of the Top 25 channels.

> According to the research carried out, a clearly demarcated information bubble of Islamist, Salafi and hybrid channels has emerged on YouTube, and YouTube's recommendation algorithm is one of the factors promoting the existence of this bubble as a separate entity.

The different stylistic elements used by the YouTubers ensure that their videos reach a large target audience with a wide variety of interests, ranging from political topics or existential crises at the personal level through to advice on the lived reality of young Muslims. A range of different framing and arguing strategies, as well as an extremely broad spectrum of topics, ensure that there is something to appeal to anyone with an interest in Islam. Users do not appear to differentiate between the different types of channels; instead, they are heavily guided by the integrated search function and the algorithm. Changes in subscriber and view counts can be used as a basis for identifying long-term trends that may be relevant for the prevention of extremism – for example, an improved understanding of the network and of gateway channels may allow prevention campaigns to be targeted more effectively.

Further research is urgently needed in this area, and the methodology developed during over the course of the project, as well as the underlying data that were collected for the purpose of the project, constitute a good starting point in this respect. Closer investigation of the fringes of extremism gave rise to a number of additional questions and hypotheses that remain to be examined. Examples include the broader context of the German-speaking cluster of channels existing on the fringes of extremism: if we expanded our investigations to cover YouTube channels broadcasting in other languages, which of these channels would be found to influence the German-speaking YouTubers? The evidence currently available suggests that a number of Arabic, Turkish and English-speaking channels exert an influence in this respect. In addition, the whole gamut of social media options that make up a targeted media strategy must be investigated. How is YouTube content combined with content on other media platforms such as Instagram,

all of which have different strengths and weaknesses? The standard narratives and the way in which topics are framed in each case should also be investigated in more detail. "Bridging narratives" are a key starting point for identifying other areas of potential action by those working to prevent right-wing or left-wing extremism, and counter or alternative narratives also play a key role in this connection and should form another focus of research, since the channels on the fringes of extremism that have been identified not only make explicit reference to negative stereotypes, but frequently use them directly to "exchange blows" on social media. In addition, the main topics covered by the channels on the fringes of extremism (as highlighted above) should be the subject of a more detailed topic-centred analysis; this would be a particularly promising starting point for educational strategies aimed at preventing radicalisation that are based on an improved understanding of the topics involved, the way they are framed, the arguments used and the calls to action within the cluster of channels on the fringes of extremism.

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