Collaborative Media Practices and Interconnected Digital Strategies of Islamic State (IS) and Pro-IS Supporter Networks on Telegram

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No previous organization has managed to execute such a widespread and sophisticated model for producing and distributing propaganda as the Islamic State (IS), relying on digital participation from supporters on a global scale. In 2015, IS and its supporters started using the encrypted application Telegram. On pro-IS channels, supporters are currently managing virtual communities in which an ideological bolstering and recontextualization of official propaganda are apparent on a daily basis. Through a digital ethnographic approach and covert observation of IS's official and supporter channels on Telegram for six months in 2017, this article aims to present findings on what characterizes the symbiotic relationship between official IS channels and supporter (pro-IS) channels and content. The conjunctures and collaborative media practices and affordances surrounding official and supporter channels on Telegram are discussed as manifestations of contemporary digital warfare. In addition, this article provides a wider theoretical understanding of IS's use of Telegram as an expression of a participatory media culture in which the contemporary relationship between the IS's central organization and its supporters constitutes a significant shift in modern online terrorism.

Keywords: social media, propaganda, Islamic State, Telegram, collaborative media, terrorism, participatory media, affordances

As the declared protostate project and caliphate of IS crumbles in terms of military defeat in Iraq and Syria, the online presence, activities, and strategies of the organization remain unsurpassed in relation to other contemporary Salafi-jihadist groups. The widespread and highly interconnected global network of online environments—which, to some extent, can be considered to amplify the physical territory seized by IS in Iraq and Syria during 2013 and 2014—is of high importance to systematically investigate further as the digital tail of IS continues to be extended. The rapid expansion of IS's online dissemination channels and information operations using popular open social media platforms like Facebook, Twitter, and Instagram, took place mainly during 2013–2015. The end of this timeframe equally constitutes the peak of IS in terms of territorial control as well as propaganda production frequency (Milton, 2016). In late 2015, the organization deliberately transferred official media outlets Nashir and Amaq to the encrypted platform Telegram and offered new opportunities to (a) increasingly avoid moderation and censoring, and (b) strengthen the relationship to its supporters in the digital environment. This article argues that the strategic

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use of Telegram by IS and its supporters has not only increased the interconnectivity and collaboration between the central organization and its online supporters, but it has also aided a mutual empowerment of and among supporters, due to both the architectural design of the platforms and implemented practices of use.

Open platforms like Twitter and Facebook have played significant roles in global outreach and mass dissemination of propaganda for IS (Berger & Morgan, 2015). But the move to Telegram marked a shift in focus on behalf of the organization, maintaining wide dissemination through participatory media and culture and, in addition, empowering supporters to consistently and in a more immediate way collaborate as content producers. The architectural design of Telegram, with the functions of communication one-to-many, one-to-one, and to encrypted chatrooms, has served IS well and helped sustain its online capabilities in times of territorial, administrative, and overall organizational change.

The overall research aim of this study is to analyze and discuss the online relationship between IS's central media and supporters in the collaborative use of Telegram, from a theoretical framework of participation, collaborative media, and affordances and from an understanding of the platform as a digital terror sociosphere (Shehabat, Mitew, & Alzoubi, 2017). Two research questions are posed:

- *RQ1:* What characterizes IS central media modus operandi on Telegram, and how are collective media practices with supporters online enabled and executed on the platform?
- RQ2: How are the specificities and functions offered on Telegram used by IS supporters in terms of propaganda dissemination and coproduction?

Theoretical Framework and Literature Review

The concepts and theoretical approaches implemented in this study draw on trajectories of technological politics (Winner, 1980), participatory (and social) media and culture (Carpentier, 2016; Jenkins, Purushotma, Weigel, Clinton, & Robison, 2007), digital terror sociospheres (Shehabat et al., 2017), and collaborative media practices (Reimer & Löwgren, 2013). Each one, respectively, as well as in the intersections between these pillars, contributes to an understanding of IS's modus operandi on Telegram and of how strategies of interconnectivity and media practices generate certain dynamics within the virtual universe of IS.

Considering the focus of this article on a certain technological platform within the digital realm of IS, with a particular argument about how the specificities of this platform provide opportunities for IS and its supporters, it is inevitable to highlight a theoretical perspective on the inherent power of technologies. Langdon Winner (1980) presented his theory of technological politics as a complement to theories of social determination of technology and focused it from "the momentum of large-scale sociotechnical systems, to the response of modern societies to certain technological imperatives, and to all common signs of the adaptation of human ends to technical means" (p. 123). In addition, he argued that this perspective "suggests that we pay attention to the characteristics of technical objects and the meaning of those characteristics" (p. 123), rather than focusing solely on social forces enabling them. In essence, his theory

is based on the notion that technologies themselves are not neutral but inherently reflect structures of power and can be used to enhance authority and thereby constitute an important object of detailed study to perceive how the use of technological systems—in this particular case, in the form of a specific social media platform like Telegram—has political qualities and consequences partially based on the emergence, design, and flexibility of the system. Adopting this perspective does not mean aligning with technological determinists, nor does it support the tradition of thought labeled as social shaping of technology. Rather, this perspective takes a stance in between, with a recognition that technologies are not only political but also that they play a significant part in social and political change.

To obtain a more in-depth understanding of how contemporary media technologies or platforms correlate with sociopolitical development, we need to contextualize them through concepts of participation and participatory media. As Nico Carpentier (2016) suggests, there are two main approaches to the concept of participation: a sociological approach, defined as "taking part in particular social processes" (p. 71) and a political (studies) approach, defined as the "equalization of power inequalities in particular decision-making processes" (p. 72). In this article, the sociological approach is implemented because of its wider definition as well as its suitability for bridging to media studies through James Carey (2009) and his theory on the ritual model of communication as a process of forming togetherness and the "representation of shared beliefs" (p. 15). This process largely plays out through contemporary media networks, and social media platforms of today, in particular, are considered participatory and part of a wider participatory culture (Jenkins et al., 2007), relying on the notion that they, through the architectural design, provide opportunities for consumers of media to become producers as well as collaborators. The aforementioned sociological approach of participation is then entailed in Carey's perspective on ritual forms of communication in which the representation of shared beliefs requires levels of interactions with media texts by participants.

In turn, these interactions, or engagements with content, can advantageously be transferred into more specific theoretical strands concerning contemporary digital networks and user practices surrounding them. In an effort to understand the relation among the practices, platforms, and strategies involved, the concept of collaborative media practices is considered vital. For media practices to be defined as collaborative, Bo Reimer and Jonas Löwgren suggest two core requirements:

- The practices are based on media services and tools that a) are easy to use; b) can be used creatively and pleasurably in many different ways.
- The practices are to a great extent collaborative. People work together to create things that are not possible for the lone user to create. And this occurs not only face to face; to a great extent, the collaboration takes place online on a potentially global scale. (2013, p. 14)

Some conceptual distinctions need to be made to separate collaborative media from other terms used to encapsulate contemporary media technologies. Not all digital media offer the possibilities for collaboration or include the properties above. Besides, today all major media are dependent on a digital infrastructure, and consequently the term *digital media* has lost its meaning as a differentiator. Social media and new media are— as Reimer and Löwgren (2013) also suggest—for different reasons, not completely suitable or precise enough

to fully grasp the practices of collaboration used in the empirical material of this article. Rather, to reach a clearer understanding of how and why Telegram constitutes a collaborative form of media, it is more productive to involve the concept of affordances, as discussed in Hutchby (2001, pp. 441–456). To navigate between determinist and constructionist perspectives on technology, he defines affordances as "functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object" (p. 444). And in relation to digital networking, Jeffrey S. Juris (2012) argues for sociopolitical affordances created by "allowing users to circulate and exchange ideas and information by posting and reposting as well as to interact, collaborate, coordinate, and debate complex ideas" (p. 266). Hence, each networking tool has certain sociotechnical affordances or prerequisites for agentic action, and this article frames the affordances generated through the use of Telegram and its specificities and functions.

IS's communication practices have long been successful in combining accessibility with userexperience focus and reliance on supporters online, thereby limiting obstacles to be part of its virtual universe. As a result of the massive online activities to reach its objectives in information operations and digital warfare (Ingram, 2015), IS has largely contributed to an expansion of the mediated sphere of Salafi-jihadist terrorist organizations. And as Papacharissi (2010) argues, forms of private media spheres situated in already established personal spaces can encourage people to engage socially and interact in whatever form that interaction may take. And as encrypted media applications like Telegram then offer various types of privacy, the platform can be used and can encourage certain types of communication practices among individual supporters of IS, enabling the participatory dimension far more than on open social media platforms. Encryption, in combination with overall design and usability of the platform, is therefore considered essential in approaching the interconnectivity and collaborative media practices taking place.

Krieger and Belliger (2014) suggest the concept of sociospheres as, in the case of IS, online network communities allowing participants to actively engage in the network without having to consider geographical boundaries (Shehabat et al., 2017, p. 31). In relation to Telegram, offering encrypted private-to-private, private-to-public, and public-to-public communication possibilities, the concept of sociospheres becomes relevant to articulate a new form of digital communication for IS and other terrorist organizations, not least because of the architectural structure and encryption of the platform. Although Facebook and Twitter are platforms with heavier censorship and less user agency concerning encryption make individuals and accounts more vulnerable for intrusion or lockdown, Telegram provides different affordances concerning accessibility and privacy, useful for strategic extremist communication practices. Krieger and Belliger's (2014) concept can be provided as a useful prefix and developed into "digital terror sociospheres" and be applied to approach the interconnectivity characterizing IS and its supporters' use of Telegram.

Previous Research

The international research field on the use of social media by Salafi-jihadist organizations and their alignment with supporters online is largely characterized by analytical interest toward the organization itself, primarily IS or Al-Qaeda, rather than through more holistic and interdisciplinary approaches aiming to grasp dimensions of the media practices involved. Through a comprehensive qualitative analysis of the pragmatic use and collaborative media practices on Telegram applied by IS, this article is an attempt to contribute to the intersection between these two sides of the spectra.

1892 Michael Krona

Concerning communication and Salafi-jihadist groups, Lia (2015) concludes the importance of understanding these organizations as essentially communicative. Whether it concerns their activities on governance or fighting on the battlefield, the communicative aspects are primarily aimed toward gaining credibility among their supporters. And the body of research concerned with the role of supporters in the digital sphere of IS holds several methodological and theoretical approaches.

From a quantitative methodological horizon, Berger and Morgan (2015), exploring the magnitude and reach of IS on Twitter—including the significance of supporter accounts—constitute a vital contribution to the understanding of IS's online presence. Just as Fisher (2015) with a similar quantitative approach provides a social network analysis on IS online presence, Berger and Morgan (2015) argue for the importance of and reliance on digital supporters for IS's success in terms of global exposure and maintaining continuous deployment of narratives and propaganda inciting followers. And considering that the online presence has been maintained despite takedown efforts as well as territorial defeat (see Conway et al., 2019), these studies are relevant for understanding how the presence and activities online have transformed and developed.

Klausen (2015) applies a similar social network analysis with a quantitative focus but also deals with qualitative aspects of how content is produced and disseminated among IS's foreign fighters online. Coproduction of propaganda is also an essential part in this article and will unfold in the analysis later on; but in comparison with Klausen (2015), the approach is broader and does not analyze a specific group (foreign fighters) but rather observes a different type of supporters. As Bloom, Tiflati, and Horgan (2017, p. 4) identify in a study on IS and its supporters' use of Telegram, there are three type of users: those who seek information, those aiming to engage with the organization, and propagandists searching for both of these types of users. Considering this typology, the following analysis scrutinizes the last two user categories but with a focus on fewer channels involved in comparison with Bloom et al. (2017). In addition, Prucha (2016) is an important reference in the qualitative understanding of identity construction among supporters on Telegram. He points to the specificities of Telegram as significant in identity formation, which can be transferred to the interest in this article to understand how these functions and specificities also convey certain affordances.

Worth mentioning, and the closest reference for this article in terms of theoretical and methodological approach, is Shehabat et al. (2017), studying the electronic jihad and the role of Telegram in so-called "lone wolf" attacks in Europe and introduces the concept of "terror sociospheres" around IS's strategic use of Telegram. As have been mentioned in the theoretical framework, it's a concept suitable to draw on when analyzing a slightly different type of empirical material yet still with the common denominator of observing the collaborative media practices of IS and its supporters on Telegram.

Data and Methodology

The methodological framework for this article draws on digital ethnography and covert observation (Given, 2008) as main approaches for data collection. The author has conducted covert observations in public and semiclosed channels on Telegram, either in (a) IS official channels (Nashir and Amaq), or in (b) pro-IS supporter channels and semiofficial media affiliated channels (like Al-Andalus or Asawirti Media).

Authenticity and affiliations following the selection and sample criteria for channels to include in the empirical material have been assessed through a straightforward snowballing approach (Cohen & Arieli, 2011) and applied to both of these group of channels. The official IS Telegram channels selected are Nashir ("disseminator" in Arabic) and Amaq News Agency. These channels, in turn, have multiple replicas mirroring content, and during the time of data collection (June–November 2017) 11 active replicas of Nashir and three of Amaq were monitored and observed. These replicas are generated to maintain the official presence and to expand the outreach of official propaganda, and since identical Nashir materials are published in all its replicas and Amaq content in Amaq's replicas, they've been included in the empirical material as backup in case some channels were closed by administrators.

The total number of supporter channels penetrated and observed as the basis for this research is 64. These have been selected through three essential criteria: (1) the content has to be IS related in the sense of accounts within the channel spreading official propaganda; (2) remediating altered versions of official propaganda or original IS supporter propaganda; and (3) discussions and conversations must make regular, positive references to IS. The main language has been Arabic, with two exceptions for channels in French and English, respectively. In addition, nine channels ran with a clear focus on specific pro-IS media affiliation (for instance, Asawirti Media, Remah, and Al-Andalus) and have been included in the material.

Access to and selection of channels was based on invitations from a network of fellow researchers, analysts, and IS supporters online. The latter could seem far-fetched and ethically problematic; however, to obtain invitations, the identity of and purpose for those who provided links was revealed, and once channels were penetrated, a covert mode and passive observation was implemented. Channels with administrators requiring peer-to-peer vetting in private chats—often in terms of posing questions on Islam or ideology to those asking for permission to enter—was deliberately avoided and instead, only channels with no vetting processes were selected. Following the invitations, links to further pro-IS channels were published on a regular basis either by channel administrators or participants.

Screenshots and propaganda materials have been collected from 87 channels in total and constitute the empirical material of this article.

Because of the sensitive nature of the topic itself, and because of the methodological approach for collecting data, a reflection on its implications is useful. As Given (2008) states, there are potential strengths and weaknesses with the method of covert observations. In general, it can be said that it is a method appropriate for studying phenomena of criminal and other deviant behaviors by individuals who would not normally agree to be studied. It is also a way of directly experiencing the online activity, and the researcher can interpret certain behaviors. In addition, it increases the trustworthiness of data because of uncontrolled or manipulated stakeholders. But on the other side of the coin, there are weaknesses to consider. From the position of the individual researcher, adopting characteristics of the group could result in unwanted consequences in the form of threats or unwilling participants.

These and other ethical dilemmas involved in covert research are discussed by Calvey (2008). He argues for the need to recognize the objections to covert research, including areas such as "flouting the principle of informed consent; the erosion of personal liberty; betraying trust; pollution of the research

environment" (p. 906) and so forth. However, Calvey emphasizes that covert research has an important part to play in the social sciences and "is part of a somewhat submerged tradition that needs to be recovered for future usage in its own right" (p. 914). And as previous empirical studies in which online covert observation has been implemented as a method show, several of the main points of critique against the method are far from one-dimensional. For instance, informed consent from participants in online forums would, as both Reilly and Trevisan (2016) and Farrimond (2013) argue, potentially hinder genuine expression and lead to reluctance to share important content for the study. If participants are aware of being monitored, they could minimize the risk of incriminating themselves, especially in the context of extremist communication. One could also argue that many channels on Telegram to a various degree are public or semipublic in the sense that not only are they searchable, but users also need to register accounts with a phone number; and, just as Reilly and Trevisan (2016, p. 421) discuss in relation to Facebook, the possibilities for using the functions of the platform require this form of information.

The strategic choices made concerning how to access channels, what channels to monitor, what content to extract, and how to present and visualize it, have all been made with awareness of the ethical considerations necessary for conducting this type of research. They have also been executed with a strong conviction that the case of IS and extremist communication occasionally requires researchers to implement covert observation methods and can be discussed in terms of necessity of research and quality of data rather than through moral conditions only.

IS Media Development and the Move to Telegram

When it comes to the strategic use of media technology to enhance and strengthen the relationship between the central organization and its supporters, the last decade, in particular, has been an evolving period. A key component in this effort has been to make distant online supporters feel part of the organization, cause, and warfare, as a tactic in line with the transnational nature of contemporary Salafi-jihadist groups. For instance, around 2010, as part of the media strategies of al-Qaeda, scriptures, doctrines, and texts presenting the ideological framework of the organization were changed in terms of presentation to make it more appealing and accessible for supporters. An increased interest in the visual aspects of messaging resulted in efforts to iconograph, to visualize scriptures and doctrines, and to use social media for dissemination. Initiated supporters could identify with the organization's framework on another level through the visually appealing presentation of ideology at work (Rudner, 2017). And when the Somalia-based group Al-Shabaab started tweeting live messages and images of the carnage during an attack against a mall in Nairobi, Kenya, in September 2013 (Reis, 2013), the aspect of interactive communication was highlighted. Accounts operated by the militants inside the mall were suspended by Twitter; however new ones were rapidly started, and supporters online could follow the events in real time.

From this development, IS has refined what previous groups have done, taken advantage of the technological development, and enforced a use of both online and offline media strategies through which their narratives and competitive systems of meaning are still being deployed. The massive media output, including media infrastructure (Berger and Morgan, 2015), as well as the storytelling techniques and audience targeting in videos, magazines, and other form of publications (Gambhir, 2014), are usually what stand out. But in more general and evaluative terms, IS has sped up and amplified the historical

development of terrorist organizations' use of social media to incomparable proportions. Not only did the group manage to establish networks of social media accounts with a previously unheard of outreach, but it also exhibits capabilities of maneuvering, adapting, and altering strategies, depending on the interventions in censorship as well as the current development and narratives surrounding the organization. Aiding these processes are key components necessary to recognize and assess IS's online presence. One of these components, and perhaps the most influential, is the dedicated reliance from IS on its digital networks of supporters helping to spread and reinforce messages of propaganda. As described in Berger and Stern (2015, pp. 151–162), IS's central media wing would have different types of *multahidun* (industrious users), some more active and with larger accounts of followers, and ansar muwahideen (general supporters around the world with less affiliation and followers), who, in turn, republished propaganda in new networks. And the appeal to supporters to join the virtual universe of IS has never been sublime or unconscious. On the contrary, in 2016, IS released a propaganda product that Winter (2017) labels a doctrine for information warfare. The doctrine reveals much of the aim, implementation, and purpose for what IS considers "media jihad" with the help of "media operatives." The pretext for IS's deliberate tactics in using supporters and forms of media, making online sympathizers instrumental in warfare, can be seen in the following section of Winter's analysis of the doctrine:

It is first worth examining what precisely the Islamic State means by the term "media operative." Crucially, the group uses it with extreme exibility—indeed, the moniker refers as much to frontline cameramen as it does to self-appointed social media disseminators. "Everyone," the document's authors hold, "that participate[s] in the production and delivery" of propaganda should be regarded as one of the Islamic State's "media *mujahidin.*" (2017, p. 12)

This including appeal to distant followers runs as a vein through the body of the organization. Seib and Janbek (2010) argue that media is the oxygen of terrorism, and the massive and intricate use of social media has, without a doubt, gained IS exposure. When Berger and Morgan (2015) revealed the massive output, enabled not only by supporters in the digital spheres but also in addition to nonhuman communication and autogenerated bots on Twitter during late 2014 and early 2015, the significance of social media for IS became obvious. But when Twitter and Facebook intensified the removal of IS-related accounts during late 2015, IS migrated its communication activities to Telegram. With its one-to-many and one-to-one communication practices in combination with encryption capabilities and less-frequent censorship, the platform offered IS possibilities for an even more sophisticated global propaganda strategy. Using the public channels introduced in late 2015 enabled IS's central media department and supporters to set up simultaneous platforms for dissemination while offering the possibility to communicate individually across encrypted channels (Shehabat et al., 2017, p. 27). And the aspect of encryption is of high importance. Telegram, unlike the similar service WhatsApp, is cloud-based and uses two layers of encryption (server-client and client-client) for anything that is shared-including video, photographs, or text. It is up to the individual user to set levels of privacy and encryption, which, in comparison with Facebook and Twitter, is highly different and provides the user with agency and autonomy. This individual agency is also enclosed in creating and moderating more open channels on the platform, as administrators have options concerning who to invite, how long invitation links can be active, who can post content, and so forth. In comparison with other platforms, Telegram offers IS and its supporters the opportunity not only to share content easily across channels but also—from a userexperience perspective—a significantly simplified form for interaction in a secure digital environment. The accessibility to upload and download very large files (gigabytes of video) generates further possibilities for distribution and consumption of materials, reducing the need to use external links to browser sites; and, according to Telegram themselves, there is no limit on the amount of data one can upload (Prucha, 2016).

Joining the application is also very easy. Through a registered phone number, a straightforward and simple verification process invites users to join the platform. From a security viewpoint, it could be added that once the verification process is made, the phone number is no longer necessary and can be removed. This allows for less intrusion into the personal sphere, as the identification of individuals behind the accounts becomes more difficult to verify (Yayla & Speckhard, 2017). It also separates Telegram from other social media platforms where more extensive private information is required to join, not least for commercial purposes, and a relatively simple measure as having multiple SIM-cards (Lancaster, 2018) further extends the previously mentioned user agency in the application.

The desire from terrorist organizations to secure communications and avoid detection is, of course, a given, and there are many measures for achieving this. Before IS's current use of Telegram, Al-Qaeda had a long withstanding strategy of attempting to coordinate attacks and terrorist activities by using draft-shared e-mails and encrypted files (Nesser, Stenersen, & Oftedal, 2016, pp. 3–24). Similar mechanisms, among other attempts to hide personal identities, likely motivated IS to adopt Telegram in such a wide manner as it has (Schechner & Faucon, 2016). Finally, although it is difficult to obtain information on regulation, it is relevant to consider that on Telegram's official Web page, the FAQ information notes that the company does not allow terrorist-related content and invites users to report it; however, the consistent presence of IS on the platform for years suggests otherwise.

Aside from these factors, there are other advantages in using Telegram for organizations like IS especially in terms of accessibility and outreach. The organization is keen on publishing lists of accounts to follow, which makes it easy for followers to "update and enrich their ISIS network of account collections and lists by subscribing to the post lists or by following the users who post to the groups" (Yayla and Speckhard, 2017, p. 5). And as the analysis of strategies to maintain a presence and expand its outreach in this article will show, this is a vital reason for massive IS activity on the platform.

Analysis and Findings

The following section aims to analytically demonstrate how strategies for IS's Telegram presence are the result of collaborative media practices and also to provide insights on key intersection between IS's official and supporter channels. The main purpose of this analysis is to combine a focus on dissemination tactics with a more content-oriented interest and thereby enhance the comprehension of how distribution tactics of different sorts are related to the content and illustrate forms of collaborative media practices. To obtain insights on how Telegram is used in both official and supporter channels, including the interconnectivity between them, three main analytical categories were developed to determine how the data could be placed:

- interconnectivity between official channels,
- centralized versus decentralized digital strategies for dissemination, and
- interconnectivity and cross-channel publications between official and supporter channels.

These categories encapsulate participatory media practices on an infrastructural level, through outsourced publications and the dissemination of propaganda, and includes the coproduction of content by supporters. In a second step, a thematic analysis of material in each category was conducted to make a representative selection (Merkens, 2004, p. 168) and extract illustrative empirical material to be discussed in depth for each area. This selection was based on the deliberate choice of highlighting the variety of content and the collaborative practices. Given this focus, rather than on potential additional interests in conversational interactions among supporters, a purposeful selection of materials focusing more on coproduction as well as dissemination of propaganda has been deployed. Therefore, materials such as screenshots of linkages among accounts, cross-channel publications, the dissemination of official materials, supporter-created remixes, and stand-alone, pro-IS visual propaganda content have been selected for qualitative analysis.

Interconnectivity Between Official Channels

Starting off with the largest official channels, the common denominator between Nashir and Amaq channels on Telegram—aside from the fact that they both represent official news and updates from IS's central media—is mainly narrowed down to statements. The recognizable blue (or longer communiques in blue and red) Amaq banners consist of news updates and potential claim for attacks and summaries of recent news updates. These banners are easily sharable on other social media platforms but originate from Telegram. Both Amaq and Nashir publish the banners in respective channels and thereby use a cross-channel publication strategy on official levels. By doing so, it not only strengthens the mainstreaming function of official channels (centralized communication practices) further, but it also increases possibilities for the brand itself to maintain a vast outreach and exposure because of the external sharing of the banners themselves.

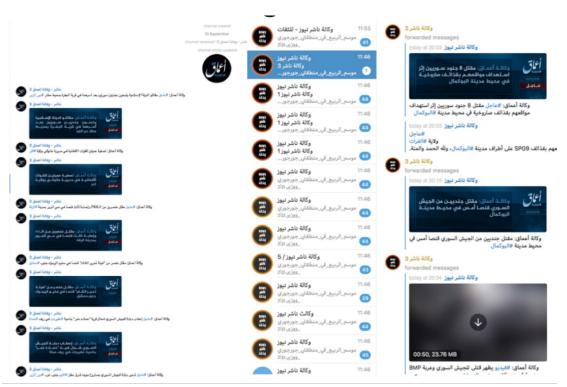


Figure 1. Screenshot of Amaq (left) and Nashir (right) channels on Telegram, illustrating how both regularly publish blue Amag news banners.

As can been seen in Figure 1, the Amaq banners are standard material in both Amaq (left) and Nashir (right) channels. The main difference between the two channels then comes down to what type of content they each disseminate. Nashir publishes all types of propaganda materials (radio bulletins, videos, al-Naba newspaper, photographs), including links to Amaq Web pages and video reports, while Amaq exclusively focuses on its own content (video reports and news banners). Another empirical argument for the importance of streamlined and centralized communication practices, using Amaq as an official outlet of the organization, is the fact that some international journalistic media, as well as pro-IS supporters, consider the updates from Amaq as trustworthy (Shehabat et al., 2017, p. 46). This works in favor of IS's global propaganda strategy when forms of legitimacy are subconsciously connected to the brand through the combination of international media news logic and planned communication practices from IS central. So, the interconnectivity between official channels should thereby also be considered as separate from the interconnectivity between official channels and supporter networks—something that will be dealt with more closely in the following section.

Centralized Versus Decentralized Digital Strategies for Dissemination

As Milton (2016, p. 16) argues, it is somewhat of a misconception to believe that IS relies only on a decentralized structure of communication where supporter networks are the main platforms for

dissemination. It is true that IS benefits widely from its ability to engage and include supporters in its external propaganda approach; however, there are strong additional indications of a highly centralized chain of communication. Leaving aside the carefully designed authenticity markers signifying that propaganda products are official propaganda of the organization, the way of communicating this material is equally deliberate—and, above all, centralized. By firmly upholding official doctrines that define what should be counted as messages on behalf of IS central command, as well as presenting official propaganda as recognizable, and communicate it through designated Telegram official channels first, IS conveys fundamental principles of centralized communication structures. During early 2018, official statements and reminders were published in the Nashir network about the importance of not trusting the news or updates published by other media groups within the jihadist Telegram spheres, and clearly emphasized that only official channels for IS central.

But despite this rigorous upholding of official sources and centralization mechanisms, the essence of IS's communication practices involves corresponding similarities to contemporary social and activist movements in terms of leadership and authority in the digital era. Paolo Garbaudo (2012) argues for a transformation from strong and certain organizational authorities to liquid or "soft" forms of leadership in the age of social media, which "exploit the interactive and participatory character of the new communication technologies" (p. 13). Not only does this relate to the instrumental organization of movements, but it also creates a sense of togetherness and enables creativity among its members. In terms of IS's communication practices, especially its collaborative character, this dimension has been adapted to stimulate the inclusive approach conveyed by the organization toward its supporters online. And understanding IS's decentralized communication practices is perhaps even more vital because of its extensive reliance on supporters to further disseminate material, including through so called hashtag campaigns with a multiplatform approach (Prucha, 2016). In Figure 2 below, the intersections between an official Telegram channel (left) and a supporter channel (right) illustrate the redistribution tactic behind a single video production.

1900 Michael Krona

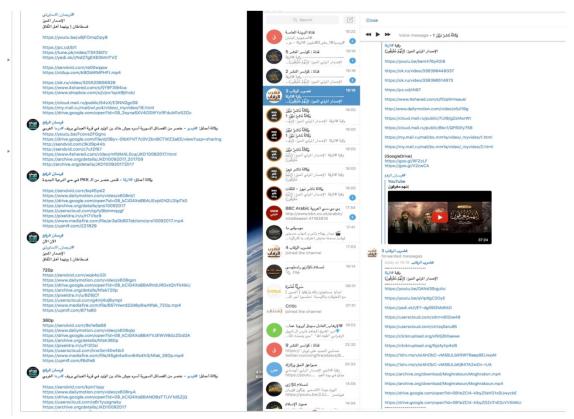


Figure 2. Screenshot of a supporter channel (right) redistributing an official propaganda video from official account (left).

One can further separate the two primary functions of supporters in the category that Bloom et al. (2017, p. 4) refers to as those who seek to engage with the organization. There are individuals and groups who (a) distribute ideologically related propaganda (pro-IS without being officially recognized in official channels), and (b) remediate and recontextualize official propaganda. The first function comes with the expansion of channels administered by supporters and media groups claiming an ideological support without seeking official recognition from IS central and disseminate independent propaganda. Even if these affiliations existed before IS moved to Telegram, it has since seen an increase of both numbers and activity especially based on the observation of movement and tracking both replicas of existing channels connected to some of these affiliations—and also new and highly active accounts (Asawirti Media and Remah Media are clear examples). What Telegram offers that more surface-Web social media platforms of the same type do not is engagement and participation in discussion, either in private or public (Papacharissi, 2010). With the option for encrypted conversations and affordances of autonomy and agency in mind, Telegram becomes an interactive platform for ideological identity construction, enforcing notions of "us-versus-them" and, within this context, strengthening the in-group identity. Unlike Facebook and Twitter, Telegram channels and chats are secure and suitable for easily enhancing interactions by sharing unlimited sizes of visual and audio media given the functions provided by the platform. An empirical example of this-actually one of the

most common features within pro-IS supporter channels on Telegram—is the production and circulation of posters, usually containing visual material and text aiming to threaten new cities by making references to previous attacks around Europe or the U.S.



Figure 3. Screenshot of posters spread on pro-IS supporter accounts.

As Winter and Parker (2018) note, a postcaliphate narrative maintaining that IS will live on no matter what is currently perhaps the most widely applied narrative within supporter networks on the platform. This narrative is clearly expressed in the media practices of coproduction among supporters and with the less-intrusive takedown efforts on behalf of Telegram, these posters remain in the digital circulation of IS's propaganda for future generations.

This type of user-generated content can advantageously be understood from a participatory media and convergence culture perspective (Jenkins et al., 2007), where the interplay between popular culture (or simply cultural) references and the actual subversion of form and content constitutes the core in the transformation of these posters from simply statements into artistic products within supporter communities. By enforcing subtle warnings through a recontextualized interpretation of both mainstream media culture references and official IS propaganda messages, supporters accentuate the collaborative and participatory dimension of IS's decentralized media operations. The second function of these engaged supporters refers to the use of previously released official propaganda, extending its message by altering modalities—for instance, adding a song to, editing footage in videos of, and then mediating the new materials in other forms or channels than where it originated. This constitutes a remediation process in which individual supporters or media affiliations engage with the material and contribute to the digital terror sociosphere by renegotiating its boundaries and changing the dynamics among individuals within the network (Krieger & Belliger, 2014; Shehabat et al., 2017).



Figure 4. Screenshot of remediation of photographs into moving images (slideshow video), produced and disseminated by unofficial pro-IS media group.

In Figure 4, a remediation process of photographs previously released through IS's official channels is in play. The photographs have been edited into a slideshow video with an added image composition that features lights and a male choir in the background. By using this method, the propaganda content runs through a two-step extension process where content moves between forms of media (transmedial) and spreads on new and different channels (Prucha, 2016).

Interconnectivity and Cross-Channel Publication Between Official and Supporter Channels

Supporter channels commonly publish links to official outlets. This suggests the strategic will from supporters to engage with official channels as well as their own, hence amplifying the official brand of IS and positing a central role in the collaborative work of maintaining a wide tapestry of channels and content. This process is strictly one-dimensional, as there are no links to supporter channels published in official channels. This practice also involves the notions of power structure and internal hierarchies. As mentioned earlier in the discussion on authority and leadership (Garbaudo, 2012), this empirical example illustrates how supporters still position themselves as part of an ecosystem where the central media command is to be acknowledged on a regular basis and through various means.

International Journal of Communication 14(2020)

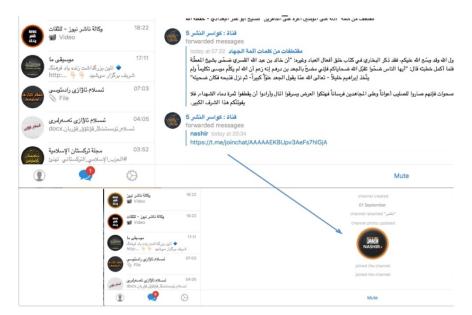


Figure 5. Screenshot of core pro-IS supporter channel on Telegram linking to official Nashir channel.

In this case, the publication of links to official channels is made by a supporter account with a high number of followers, although these links are also published by the next layer of supporters with fewer followers.

Another distinct function that channels with a high number of followers (from here on, "core accounts") have is to engage with official propaganda and highlight and republish small extracts from this material. An example would be the publication of a new issue of the al-Naba periodic newsletter, which is published in whole as a .pdf file at a given time on both official Nashir channels and simultaneously on core accounts with identical links and extracts. As the marked time stamps in Figure 6 below shows, there is no discrepancy in time for publishing the same product and a selected extract, suggesting that in this case there is a cross-channel communication that can either be manual with less individuals working simultaneously with different accounts, or as an automated practice. Regardless, the constant republishing of material and extracts for further exposure and message reinforcement is essential and is actively deployed.

1904 Michael Krona

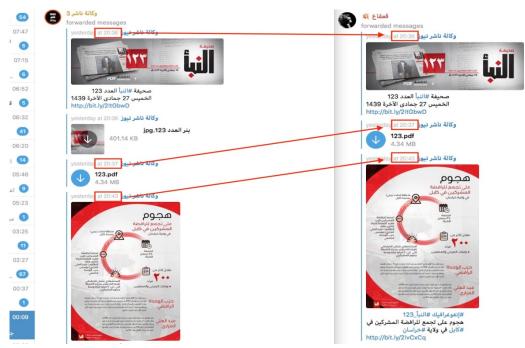


Figure 6. Screenshot of cross-channel publication of Nashir (left) and core supporter account (right), illustrating the same time stamps for publication.

Other empirical examples that further support the activity of cross-publication are related to the distribution of videos, extensively focused on receiving attention by providing links to, or simply by visualizing sensational and graphic sequences and extracts. These are repackaged and published in supporter Telegram channels, and the activity is part of the overall multiplatform strategy (Prucha, 2016) of linking to other platforms, as shown below on an auto-generated Twitter account.



Figure 7. Screenshot of a Telegram supporter channel linked Twitter account, with extract from recently published propaganda video. (Note: victim's face covered for ethical reasons.)

The interconnectivity and integration of platforms and accounts, when it comes to exposing material to a larger audience, is an interplay between nonhuman communications and individual, manual activities. Automated bots are essential tools in IS's Telegram activities; however, investigating these systems goes beyond the scope of this article. It should be noted, though, that the integration of nonhuman and human intervention promoting IS's messaging to ensure that maximum outreach was a prevailing tactic even before the current extensive use of bot networks on Telegram. Because of this, the focus of this article in general and this analytical theme is less on the nonhuman systems of communication, but rather on concerns of how certain core accounts are used as bridges to a larger population of supporters, all ready to further disseminate propaganda in different forms. The main purpose of multiplatform publication and the extraction of selected content for further dissemination is maximum exposure and message reinforcement.

These core supporter accounts, holding a high number of followers and credibility, can be seen as catalysts for a more-efficient spread, and the dissemination of official propaganda takes place at the intersections between centralized (from media wing outputs through core accounts) and decentralized (replicated by other supporters) communication practices. Bodo and Speckhardt (2017) identify these core accounts and individuals as harvesters and define them as individuals and groups affiliated with IS who collect, repackage, compile, and publish 40–80 pages of briefings containing a vast amount of propaganda material. These packages are added to paste-sites like justepaste.it and addpost.it and then shared by

supporters, making the daily volume of content disseminated online difficult to censor as it is continuously shared on new platforms. When implementing this strategy and structure on Telegram, the content still gets linked to other platforms and is simultaneously offered on public or semipublic channels on Telegram (because of the possibility of uploading very large files) and the material, to a large extent, remains on the platform even if the channel is closed.

Conclusion

The research conducted for this article shows that the interconnected strategies between IS and its supporters on Telegram come into play on different levels. With an outspoken reliance from IS's central organization on its supporters, appealing through various messages and incentives, the organization's use of Telegram manifests a reflection of the hybrid and simultaneously centralized and decentralized structure of IS's communication practices. Using the platform with a strong emphasis on collaborative media practices, where actors within the networks share and contribute to a dynamic digital environment and relationship between them—whether or not actors refer to channels, accounts, or individuals (Krieger & Belliger, 2014; Shehabat et al., 2017). The collaborative media practices involved and the overall digital strategies for dissemination being implemented on IS Telegram channels, combined with the functions and possibilities for communication on the platform itself, constitute an expansion of digital terror sociospheres online and enhances the brand of IS online in times of territorial setbacks and regrouping into insurgency warfare in the ground.

The move from Twitter and Facebook to Telegram can also be considered a digital regrouping on behalf of IS. The role of Telegram as an encrypted platform and IS's preferred application for official information and propaganda dissemination is significant in terms of the affordances it provides for supporters. Even though there are, as Prucha (2016, p. 56) highlights, internal criticisms within IS's digital spheres on the risk of supporters being isolated on Telegram and missing out on opportunities for the maximum reach of messages, the analysis in this article shows indications of well-established collaborative communication practices, interconnected activities, and multiplatform strategies contributing to the vast exposure of propaganda. The functions and user experiences of Telegram are suitable for organizations like IS to connect closer with digital supporters, for opportunities to communicate both openly and encrypted, and to simplify the process of having propaganda travel through different platforms and file-hosting sites. These opportunities are heavily used concerning collaboration on dissemination and cross-channel publication, as well as the coproduction and remixing of propaganda by supporters. Affordances in terms of how the design of the platform creates sociotechnical opportunities and meanings correspond well with the inclusive approach from IS's central media command toward supporters, the aim to enable community building in secure digital environments, and the ability to share unlimited amounts of propaganda are deeply inherited in the modus operandi of IS's hybrid warfare.

The significance of Telegram, in particular, can also to some extent be assessed through the recent debates on how its design and its limited attempts to block IS channels can be seen as aiding extremist organizations or sometimes just oppositional democratic movements in authoritarian states. As Karasz (2018) points out, Telegram differs from similar apps like WhatsApp and Signal, and Russia and Iran are nations that have recently increased their efforts to try to ban the application in their respective countries.

Organizations like IS have managed to establish and maintain a strong presence on Telegram through strategies presented in this study, and, in sum, the results give reasons to believe that IS and its supporter's strategies and media practices will outlive Telegram as the organizational ability to adapt and use new platforms appears stronger than ever.

IS is no longer a protostate project; neither is it a traditional terrorist organization. It is currently taking the form of an insurgency movement, and it is becoming more evident that traditional definitions of terrorist organizations tend to be stretched when including the online capabilities and cultivating functions of digital supporters orchestrated for years by IS. Since 2014, there have been many interesting developments in this regard; however, it has been mainly since (a) the territorial losses for IS because of increased military setbacks in 2015–2016, and (b) the significant move from Twitter and Facebook to Telegram for communication and propaganda distribution that the digital spheres of IS have become widespread, intriguing, and interesting enough to discuss it as a movement rather than as an organization. Social movement research in combination with network studies and critical media and communication approaches hopefully can constitute valid contributions and provide insights useful in supplementing countermeasures and strategies for effectively reducing the outreach and ideological impact of IS. The current collaborative media practices on Telegram suggest that these types of interdisciplinary approaches are much needed.

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