

Article

Telegram Channels and Bots: A Ranking of Media Outlets Based in Spain

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Abstract: Telegram, an Industry 4.0 style communication service, is one of the world's most widespread communication platforms. The availability of channels and bots has opened as a broadcast channel for any media outlet. We asked the following questions: Do media outlets from Spain use Telegram channels? Which media outlets? Are they verified? What is their volume of subscribers? Can this information be used to rank media outlets? We identified many media channels and data were collected from each one. We present the results in a ranking. Forty-two media based in Spain have Telegram channels, 26 of which are ranked in the directory. Less than half of these channels are verified by the platform, and only three are linked to their website. This lack of verification could lead to the proliferation of fake channels. The article ends with a series of recommendations for channel managers to make it easier for the end user to identify and verify each media outlet.

Keywords: telegram; media; Spain; channels; bots; fake channels; rankings



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1. Introduction

Beginning as an alternative to WhatsApp and with an Industry 4.0 style, Telegram has come a long way. In 2013, Telegram was created outside the Silicon Valley ecosystem by the Russian brothers Nikolai and Pável Dúrov—the latter already famous as the creator of Vkontakte (VK), which is often called the “Russian Facebook”. In 2014, Pável was forced to leave the hugely successful VK—and Russia—because of problems with the Putin administration, which even blocked the messaging application in 2018 [1]; however, its clandestine and nonconformist use continued [2]. Currently, Telegram is registered in the British Virgin Islands, and its operations center is in Dubai [3].

Over time, Telegram transcended the limits of traditional messaging applications. Although behind WhatsApp in terms of the number of users, it has, from its inception, out-featured WhatsApp. One such feature is the availability of channels and bots. There is the possibility of creating channels in Whatsapp, but this feature could be more developed. Channels can only have a maximum of 512 users, which is a considerable limitation, although it is now doubling [4]. Meta has not bet on leveraging Whatsapp as a tool for mass dissemination as Telegram has done. Whatsapp came earlier and is today the instant messenger application with more users (42% of share), followed closely by Telegram (34%, more than 700 million) [5]. Telegram has innovated (and continues to innovate) far beyond what Whatsapp does, allowing it to gain users from Meta's mistakes [6].

Originally, its possibilities were much more limited than presently, and many of its capabilities may go unnoticed by its non-regular users, for instance the hastags [7]. Nevertheless, surprisingly, even many of the media outlets that have long been using Telegram have overlooked the increasing number of capabilities of its current configuration [8]. Initially, the possibilities of editing and publishing channels differed little from those of group chats. However, the gradual incorporation of management tools and advances in the capabilities of different updates have generated a panorama of free resources [9]. These resources far exceed those of and include, in the same freeware, cross-platform, cloud-based instant messaging service, possibilities of disseminating and managing information

from tools such as Twitter, YouTube, Twitch, Pinterest, Facebook, eBay, Drive, Calendar, Meet, Dropbox, and Flickr, among others, although the channels seem to be the key to its success [10].

The availability of channels and bots has opened up the possibility of using Telegram as a broadcast channel for any media outlet [11]. These features have had such a significant impact that they have reconfigured the tool, which is currently being used massively as a platform to store, manage, and share data [12]. We believe that this potential has not yet been fully exploited by the media—albeit with a few exceptions—as discussed in this article. For example, verification is a feature with great potential [13], although, as we will see in this paper, it still needs to be fully exploited. However, before addressing the media, we will review the state of the art to assess how Telegram has been treated in Communication literature.

2. Telegram and the Communication Journals

Although the subject category Communication is extensive, especially in Scopus [14], the scientific production on this issue (Telegram) is not particularly prolific (Table 1). It is, nevertheless, a field increasingly attracting research interest. A search for Telegram in the title, abstract, and keyword fields in Web of Science and Scopus, restricted to journals in the subject category Communication¹, retrieved (after eliminating the “telegram” hits that do not correspond to the portal) only 42 records. Sometimes, Telegram is only mentioned contrary to WhatsApp [15]; other times, as part of a group of platforms equally studied, approximately half of the works are either focused only on Telegram or use this application as the main source of data [16].

Table 1. Publication year and country. Sources: WOS & Scopus.

Year	#	Country	#
2017	1	Russia	10
2018	5	Iran	6
2019	4	Spain	4
2020	17	Indonesia	3
2021	15	Switzerland	2
		Nigeria	2
		The Netherlands	2
		Italy	2

Although this analysis precedes the end of 2021, Table 1 highlights the strong growth in the number of records. Even more striking is the other half of the table, which outlines the countries with at least two studies on the subject. Russia and Iran top the ranking in the first and second places, respectively. However, in the SCImago Journal and Country Rankings in Communication, Russia occupies 28th place and Iran 37th. Unsurprisingly, Spain ranks in third position, which is the usual in recent years in this same ranking.

Delving into the content of these studies, Figure 1 shows the image of a co-occurrence network diagram of subject keywords (co-keywords) extracted from publication records, as found in the WOS and Scopus. These keywords were processed using the bibliometric software Vosviewer [17].

The two most frequent keywords are Telegram and social media, around which the other descriptors that have been automatically classified by the Vosviewer clustering algorithm are clustered. Some research has been conducted on media literacy with Iranian [18] and Indonesian [19] students. These studies are identified in the network with the purple cluster together with other media literacy studies that go beyond the scope of university students and work with the general population (user behavior) but always in countries such as Iran [16,20], Russia-Belarus [21], and Singapore [15].

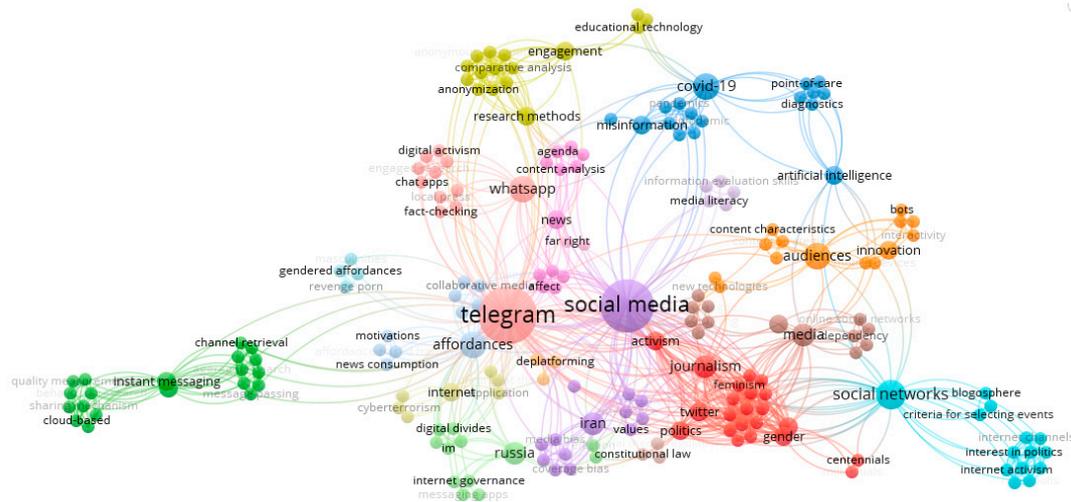


Figure 1. Co-occurrence network map of keywords. Sources: WOS & Scopus.

The topic most commonly found in this set of documents is unrelated to media literacy but linked to political activism. As in Twitter, researchers have found Telegram as the ideal tool to read the pulse of the population—to assess their political sentiment (salmon, light blue, and bright red clusters). For example, the 2017 presidential campaign in Iran alone accounts for three studies [22–24]. By then, Spain had already experimented with an innovative news bot, which came to light in the disputed 2016 elections, termed Politibot. The news bot provided more than 8400 users with information on everything related to the elections in a balanced, fresh, and colloquial manner. Its success ensured that even after the elections, the bot continued—owing to 50,000 euros in funding from Google [25]. Additionally, the Politibot experience has been studied in detail by two Andalusian researchers [26,27].

Telegram’s link to politics is not limited to the electoral arena because this instant messaging service can also be a powerful tool to follow and study protest movements such as those in Russia [28] and Belarus [29] or feminist strikes in Spain [30]. Here, Telegram channels allow us to carefully examine the heart of activist communication, even in cases as extreme as that of the Islamic State [31,32].

Studies have also ventured into the use of Telegram by the extreme right, which boomed once Donald Trump became the president of the USA. Trump’s image is often used to identify far-right networks, which are highly decentralized but can be identified and even viewed from Telegram [33]. Additionally, Telegram hosts many far-right users who have been banned from other social networks—a phenomenon known as deplatforming [34].

At the top of the network, a blue cluster shows COVID-19 as its most significant keyword. In the studies of this cluster, Telegram was used in two different ways. On the one hand, Telegram was used as a health literacy tool to provide patients with training and information in Cuba [35] and South Africa [36], where even artificial intelligence-based solutions are applied. On the other hand, Telegram was also useful to study COVID-19-related hoaxes, fake news, and disinformation in general [37], specifically in Africa [38].

Indeed, few studies have assessed Telegram’s effect on the journalistic world, but they appear associated with the articles of the bright red cluster. At first, as indicated above, Telegram timidly emerged as WhatsApp’s alter ego for detecting hoaxes and fake news [39]. However, immediately after, it appeared in the title of a few works as an increasingly leading tool [40], albeit not yet sufficiently adapted to journalism as other social networks [41], particularly Twitter [42].

Considering the above, Telegram is a platform with considerable public demand for information consumption through its well-known channels. These channels and bots are widely used by various groups, from various activists (far-right, jihadists, and anti-systems, among others) to convalescent patients. However, as the studies cited in the

previous paragraph indicate, journalists and the media are not yet tapping into its potential. Therefore, in this article, we propose to study the media based in Spain that use Telegram channels to share the news with and contact its users. The difference between channels and bots does not affect the object of study. A channel can be fed by a bot but not necessarily. As such, we will, henceforth, only mention channels to avoid confusing the reader. Ultimately, we aim to answer the following research questions:

RQ1. Do media based in Spain use Telegram channels, and can they be ranked?

RQ2. Can they be verified with the available data?

RQ3. Is this data enough to avoid fake channels?

3. Materials and Methods

First, we assumed that the channels we were interested in studying were public and, therefore, open to consultation by any normal user of the platform. Identifying a channel only requires launching a general search with the name of the media outlet, which will return the channels that most resemble the name and display the messages of our channels that already contain that name. This spamdexing is already the first inconvenience for users because they can find more than one channel that may look like an official channel of the media outlet but is not. Such a lack of oversight is a highly sensitive issue, especially in an environment where fake news from fake channels abounds.

To solve this problem, two alternatives are proposed: (a) verifying the channel; (b) accessing the channel from the website of the media outlet. As shown below, these options are not always available.

In fact, we do not have a directory of Spanish media channels, which can be considered a limitation. Therefore, we have built such a list from the study of digital audiences entitled "Digital News Report España 2021" [43]. The final scope of the paper was defined by a list of 42 media that remained after following the following process:

- We searched for the web version of the media outlets that post news or link to their Telegram channel, as almost all of them link to their Twitter, Facebook, and Instagram profiles, and some to their YouTube channel and other applications. Surprisingly, we found that only three media outlets post news and provide access to their Telegram channel;
- We searched Telegram for the same media outlets and found that 30 of the 42 headers included a Telegram channel, but only eight were verified by Telegram;
- We refined the initial list of 30 channels and found that four of them had been inactive for more than six months;
- We trimmed the list to 26 channels after excluding the four inactive channels;
- In the 26 selected channels, we identified their date of creation by clicking the options button at the top-right of the screen, selecting "go to the first message" from the drop-down lists, and checking the record of the date of creation. In all of them, this date is specified before the first message;
- The number of subscribers of each channel has been registered as of 1 January 2022. The information on the number of subscribers is public data, which can be retrieved from the channel.
- Below, we searched the post number of each channel on the same date. This information is not expressly indicated in the general information of the channel but can be accessed by requesting a news link, which indicates the order number of its publication. To gather information on the total number of publications of each channel, we recorded the order number of the first news item published;
- After gathering the name, the date of creation, and the number of subscribers and posts, we divided the number of subscribers by the total number of posts of each channel, thereby calculating the S/P ratio, which will be the object of our analysis;
- Finally, we made the final table, ranking the channels by the number of subscribers from highest to lowest;

- We collected other types of additional data, such as the number of photos, videos, links, comments, sections, and hashtags, among others. Several of them can be quantified, but to avoid complicating the analysis, we have only identified them through a series of icons;
- The second author performed the original data collection. Subsequently, the first author conducted a complete quality control check for errors and omissions.

4. Results

Following the steps described in the previous section, we ranked the media outlets, as outlined in Table 2 (RQ1). For each medium, we included its start date, the number of subscribers, the number of posts, and the ratio between the two, ranking the channels by the number of subscribers from highest to lowest.

Table 2. Media ranking. Source: own elaboration.

Medium	Start	Subscribers	Posts	S/P
RT en español	16 August 2016	110,772	24,128	4.59
eldiario.es	25 September 2015	45,795	7152	6.4
laSexta	14 April 2020	27,120	1792	15.13
euskalnews.com	25 April 2020	23,873	5671	4.21
CNN en Español	1 July 2016	21,167	3058	6.92
Público	28 July 2016	16,244	6573	2.47
elnacionalcat	25 January 2017	15,808	17,897	0.88
Antena 3 Noticias	25 May 2020	11,400	3068	3.72
El Mundo	11 April 2016	10,986	3229	3.4
EL PAÍS	22 June 2016	10,782	3162	3.41
Libertad Digital Oficial	26 February 2019	7459	583	12.79
Diario MARCA	21 August 2019	4157	79,033	0.05
COPE	14 July 2020	4115	3153	1.31
Europa Press	3 February 2021	4057	781	5.19
20 minutos	5 August 2018	2314	137,471	0.02
El Huffpost	18 April 2016	2177	794	2.74
Granada Hoy	30 October 2020	2150	580	3.71
El Confidencial	12 April 2018	1988	42,473	0.05
Diario AS	20 August 2019	1980	109,124	0.02
OK Diario™	11 November 2020	1610	756	2.13
La Voz de Galicia	22 May 2020	1161	54,689	0.02
Vozpópuli	29 March 2021	866	297	2.92
Euronews Spain	6 January 2016	609	44,183	0.01
La razón	9 July 2020	313	9421	0.03
Esdiario.com	7 July 2020	255	821	0.31
Cadena SER Jaén	22 February 2021	202	246	0.82

Note: The color correlates with the data in each cell and improves the visualization.

4.1. Media Ranking

The start sequence of the channels shows three clusters or periods in the creation of media channels in Spain:

- An initial period starting at the end of 2015 and ending at the beginning of 2017, in which the first nine media are launched—eldiario.es, Euronews Spain, El Mundo, El Huffpost, EL PAÍS, CNN en Español, Público, RT en español, and elnacionalcat;
- An intermediate period, from the spring of 2018 till the summer of 2019, during which five channels started—El Confidencial, 20 minutos, Libertad Digital Oficial, Diario AS, and Diario MARCA;
- A more recent period, during the ongoing pandemic, from April 2020, under lockdown, till March 2021, in which the remaining 12 were launched—laSexta, euskalnews.com, La Voz de Galicia, Antena 3 Noticias, Esdiario.com, La razón, COPE, Granada Hoy, OK Diario™, Europa Press, Cadena SER Jaén, and Vozpópuli.

The date of creation of the channel is somewhat associated with the number of subscribers, with the oldest channels accumulating a higher number of subscribers, except for *laSexta* and *euskalnews.com*, which, despite being among the most recent channels, enjoy a substantial volume of users. Conversely, the date of creation is independent of the number of posts because the most prolific channels are found in the intermediate period, not the oldest. As shown below, this number of posts depends on the criteria for creating and feeding the channel and not particularly on its age. In fact, some channels created on a specific date were used intensively only after some time, not immediately. Some channels have also maintained an inconsistent activity during specific periods, with the channels that seem to be mere automations of their social networks remaining the most constant. However, this constant activity is not indicative of the media outlet's interest in their Telegram channel because these channels do not require any intervention. Other media outlets, which edit the news that they publish or provide news selections and reading recommendations, show more interest but have sometimes been less consistent than those who have automated the publication process. Based on how the messages of some of the channels appear, some media outlets could even be unaware of the existence of their Telegram channel because anyone can make a channel using the news and branding without the outlet knowing. A channel does not need to be verified to be usable (RQ2): only 9 of the 26 channels in this study are verified (34%).

To make it easier to read, we colored the cells in a gradient from high values in green and low values in red. At this point, we considered ranking alternatives. In no case could the number of posts be used as the sole criterion because this exclusively depends on the channel creator. In this case, "more is not better" but the opposite. Some channels directly "link" the Telegram channel as a feed from the media website. This strategy does not usually lead to good results because reading "all" the news seems easier accessing the website directly. From our experience, a channel's value lies in the news selection.

Our first option was the number of subscribers because this data expresses an action of common users who choose to connect and who remain connected with a channel over time. The latter further emphasizes the value of the number of subscribers because most subscribers have reached the channel without an invitation to the user community. The absolute values of the number of subscribers are relevant in that the publications are reproduced and available in their entirety to each user, who can see them when they are posted and access them on the corresponding website at any time. Subscription is a voluntary act, after which the application will send and automatically notify the user of any new publication, although notifications can be muted. The channel can even be archived and removed from the main folder, without stopping receiving new news, which will be stored and remain accessible to the user at any time.

Accessing a public Telegram channel does not require being a subscriber, and any channel can be viewed in its entirety by any Telegram user. Accordingly, these channels have been viewed by users who are not subscribers. Nevertheless, subscription is important because this parameter indicates that the Telegram channel of the media outlet has been added to the user's chat list. Further, it indicates that when the user performs general or specific searches in the channel, the system responds with information on all messages included in the channel in both free text and hashtags. When a subscriber of a Telegram channel searches for a sequence of characters, the system responds with a message that fully meets the criteria. However, the information retrieved by the user as a result of the search is insufficient to determine whether the media outlet has created the channel or is a fake channel (RQ3). Finally, we combined both indicators in a ratio (subscribers/posts) to assess whether the resulting ranking was more significant. The results showed otherwise, but we identified two media outlets with interesting behaviors for further analysis.

The ranking column shows a considerable chromatic difference between the first (RT en español) and the second channel because the first is the only truly green channel. RT en español is the only channel with more than 100,000 subscribers—comfortably doubling the second, *eldiario.es*, which has not yet reached 50,000 subscribers. Just above the middle of

the ranking, a group of three channels—laSexta, euskalnews.com, and CNN en Español—lie in the range of 20,000 subscribers. Público, elnacionalcat, Antena 3, El Mundo, and El País complete the top-10 channels with the most subscribers, exceeding 10,000. All other channels fall short, with the last five failing to reach 1000 subscribers. Organizing these data by date of creation of the channel shows that the top 10 channels also occupy the first positions in terms of the number of subscribers, except for Euronews Spain, which lags in the 23rd place, with only 313 subscribers, despite being the second-oldest channel and having been active for six years. The top 10 include two channels of international media outlets (RT en español and CNN en Español), six channels of major national media outlets, and, surprisingly, two channels of regional media outlets (euskalnews.com and elnacionalcat), which stood out. To indicate the relevance of the position of these media, we will cross these data with other online audience data in future studies.

The number of posts is clearly not related with that of subscribers. Here, 20 minutos tops the list, with almost 140,000 posts, followed by Diario AS, with nearly 110,000 posts, Diario Marca, with just under 80,000 posts, and La Voz de Galicia, Euronews Spain, and El Confidencial, in the range of 50,000 posts. They are followed by RT en español, elnacionalcat, and La Razón, with nearly 25,000, just under 18,000, and almost 10,000 posts, respectively. The top-10 ranking of posts is closed by eldiario.es with just over 7000 posts. The results highlight that the volume of posts is unrelated to the date of creation or—and much less so—with the number of subscribers. As stated above, the number of posts is related to the editor's criteria when configuring the channel and, inherently, to the news generation potential of the medium, at least the news available online.

Most interestingly, the S/P ratio of the last column is not related with any other parameter in the previous columns despite its greater affinity with the number of subscribers. In line with the above, the lower values are found in the lower-half of the ranking, and the higher values are found in the upper-half. Here, two media outlets have a significantly higher ratio than the others: laSexta and Libertad Digital Oficial. Their Telegram channels have a significant number of subscribers—placed at 3 and 11 in this ranking, respectively—but a limited number of posts. Here, it seems that the quality of the information is high, so they maintain many followers with few posts. This disparity may be related to the increase in the number of users in the case of laSexta and the frequency of posts in the case of Libertad Digital Oficial.

These Telegram channels operate differently from each other. The analysis of their use of resources showed that laSexta uses fewer resources. However, it uses them highly effectively while pursuing a highly specific goal of attracting attention to the medium in search of an audience by daily repeating news routines simultaneously and sometimes with careful formats, even to break routines. In turn, Libertad Digital Oficial seeks to draw more attention by notifying its users about an important issue at specific times, using different means and doing so less systematically.

4.2. Other Features

In addition to subscriber data and posts, we collected numerous complementary features and data. However, we did not want to include them in the ranking because they did not substantially modify the ranking and could add noise to the analysis of the previous section. Although some features are quantifiable, we believe that indicating their presence in each channel suffices for this analysis. Those features are detailed in Figure 2.

Thus, we constructed Figure 3 outlining the options present in each of the 26 media outlets under study. The results show that the number of features is higher in the top-ranked media.

✓	getting a Telegram verified badge for the channel
📷	posting photographs
📺	posting videos
🎤	posting audio
🔄	posting animated GIFs
🔗	posting links
🔑	linking the channel to the website of the media outlet
🗣️	using the Quote Telegram Channel
📖	enabling comments from subscribers
👍	enabling quick reactions from subscribers to posts
✍️	editing news in different formats
📄	repeating sections
👥	Sister channels
🏷️	using hashtags

Figure 2. Features analyzed. Source: own elaboration.

Media name	Features
RT en español	✓ 📷 📺 🎤 🔄 🔗 🔑 🗣️ 📖 👍 ✍️ 📄 👥 🏷️
eldiario.es	✓ 📷 📺 🎤 🔄 🔗 🔑 ✍️ 📄
laSexta	✓ 📷 🔗 🗣️ ✍️ 📄
euskalnews.com	📷 📺 🎤 🔗 🗣️ ✍️ 📄
CNN en Español	📷 📺 🎤 🔄 🔗 ✍️ 📄
Público	✓ 📷 🎤 🔗 ✍️ 📄
elnacionalcat	✓ 📷 📺 🔗 ✍️ 📄
Antena 3 Noticias	✓ 📷 📺 🔗 ✍️ 📄
El Mundo	✓ 📷 📺 🔗 ✍️ 📄
EL PAÍS	✓ 📷 📺 🎤 🔄 🔗 ✍️ 📄
Libertad Digital Oficial	✓ 📷 📺 🔄 🔗 ✍️ 📄
Diario MARCA	📷 🔗 📄
COPE	📷 🔗 ✍️ 📄
Europa Press	📷 📺 🔄 🔗 ✍️ 📄
20 minutos	📷 📺 🔗 📄
El Huffpost	📷 📺 🎤 🔗 ✍️ 📄
Granada Hoy	📷 🔗 🔑 ✍️ 📄
El Confidencial	📷 🔗 ✍️ 📄
Diario AS	📷 🔗 ✍️ 📄
OK Diario™	📷 📺 🔄 🔗 ✍️
La Voz de Galicia	📷 🔗 📄 📄
Vozpópuli	📷 📺 🔄 🔗 ✍️ 📄
Euronews Spain	🔗 📄
La razón	📷 📺 🔄 🔗
Esdiario.com	📷 📺 🔄 🔗
Cadena SER Jaén	🔗

Figure 3. List of other features. Source: own elaboration.

The most striking result is that Telegram verified channels are located exclusively in the upper half of the ranking, which raises the question as to whether verification is one of the criteria adopted by users for subscribing to a channel. Nevertheless, if a channel is not verified, users can visit the website of the corresponding media outlet to “connect” to the channel. However, of the 17 non-verified channels, only one has a link to the website of the media outlet (Granada Hoy). For the other channels, users must make additional inquiries, as we were required to do ourselves, and of which we cannot be 100% sure.

In most cases, no reference is made to the intentions or reasons that have led the media outlet to be present in this application, neither on the Telegram channel nor on its website. This lack of information is confusing. A Telegram channel linked to the website of the corresponding media outlet should be the official channel of that medium. However, when

fake news is the order of the day, users may relatively easily subscribe to a channel that ultimately leads to news from outlet X but is not managed by the outlet. This channel could select only some news from media X, thereby skewing its editorial line. This bias would be especially significant in media outlets with large news production and without a clear editorial line. We have detected such a case, which we will analyze in a future study—but we labeled it as a fake channel. This is an interesting concept on which, to the best of our knowledge, no research has been published yet; most studies usually only address fake members (subscribers) of a specific channel.

Almost all Telegram channels present some multimedia information—(mostly) photos, videos, audios, animated GIFs, and links—giving direct access to each of these media through information on the channel. As indicated above, at first, the number of posts on each type of media was recorded numerically, but we ruled out a quantitative assessment because the results do not add value to the analysis. Similarly, posting links is strongly related with the number of posts because the channels usually link all their news to the equivalent information on their website. Enabling comments and reactions is not a determining feature of a channel either.

However, we believe that a little-used feature with high potential is the hashtag. On Twitter, hashtags are crucial for following the news (through trending topics) but simultaneously useless to retrieve information diachronically. Conversely, on Telegram, hashtags are decisive for the latter purpose. They have tremendous potential for retrieving information, which the media outlets overlook. Only two media outlets use them (20 minutos and La Voz de Galicia), but they do not take advantage of them because they include them randomly and fortuitously. If they were assigned systematically and according to some internal thesaurus, they could turn any channel into a massive news database effortlessly. Although this task is usually assigned to librarians, journalists who know how to implement these features could generate a channel whose usability would make the channel highly addictive for the advanced user.

Considering the above, the possibilities of configuring a channel for a medium are highly varied. Until now, channels have been created more or less mechanically and, sometimes, even carelessly. We believe that creating a model for channel configuration and implementation may configure a development—a task that we will undertake in the near future.

5. Discussion

As detailed above, we can now answer our research questions. Approximately 26 media outlets from Spain maintain active Telegram channels (RQ1). These media outlets have been able to identify themselves, but less than half are verified by the platform, and only three are linked to their own website. This lack of verification could facilitate the proliferation of fake channels—channels with information from a media outlet but edited by people outside the organization. It seems as if the telegram channels have not been officially accepted by the media (RQ2).

We ranked these 26 media outlets by the number of subscribers over that of published posts. The ranking is comfortably led by RT en Español, with eldiario.es in second place. In turn, the top-10 ranking includes two foreign media outlets, six national media outlets, and two regional media outlets (euskalnews.com and elnacionalcat). laSexta and Libertad Digital Oficial also stand out for their S/P ratio. No relationship is verified between the means of the ranking and its possible political bias, but there may be a bias towards younger users that could be studied in more detail later [11].

In terms of features and options, the channels tend to use various types of multimedia, especially photographs, but they do not significantly use other powerful features such as hashtags, just 2.3% of the total [7]. Even channels with hashtags do so incorrectly and incompletely, and could be information retrieval issues [44]. Properly managing hashtags (based on a thesaurus) could even be implemented with a bot [45] and can turn a simple media channel into a substantial news database.

We also believe that a deeper study of the verification and official recognition of channels is important to avoid (or at least identify) fake channels. Telegram fake channel is a new concept that we propose and could be helpful for the general study of fake news. Creating a Telegram channel with news from a media outlet edited by someone outside the outlet can be a subtle form of fake news. We intend to delve into this phenomenon in our subsequent research (RQ3).

With all these experiences, in the longer term, we should be able to define a Telegram channel model for media that integrates the most powerful features of the platform and simultaneously gives subscribers all the necessary guarantees for the automatic consumption of personalized news [10]. Likewise, we can make some recommendations to the managers of Telegram news channels.

The critical element to avoid fake channels is verifying organizations (Telegram does not verify personal accounts) [13]. The procedure is simple and is explained in the Page Verification Guidelines <https://telegram.org/verify> (accessed on 9 November 2022). It is an almost automatic process if the media outlet is already verified in at least two of the following social networks:

- TikTok
- Instagram
- Facebook
- Youtube
- Twitter
- V.K.
- Snapchat

The manager must put a link to the channel, and the @VerifiBot bot will quickly verify it. There is also the possibility of replacing one of the social networks with a good Wikipedia page that links to the channel. However, this page must be undisputed and comply with the notability guidelines of the platform. Finally, it is possible to verify the channel with a link from the official website of the media outlet. If a channel changes its name, it automatically loses verification. These procedures are straightforward, but almost 2/3 of the channels studied in this paper are still not verified, and this can confuse the end user.

Some platforms have an active content control policy, which can be considered mainstream, including YouTube and Facebook, but the freedom that Telegram allows has led it to be described as a “fringe platform” [46]. This issue is severe in activists with conspiracy narratives as many groups have left classic platforms like Facebook or modern ones like Discord to take advantage of Telegram’s refusal to join the deplatforming phenomenon [47]. These groups have boomed with COVID-19 [48] and far-right and hyperpartisan groups. In these cases, activist channels have been detected that often mix links to mainstream websites (like our media outlets) with links to alternative extremist sites [49]. In his study, Holzer finds many links to mainstream media, such as Bild or Die Welt, in the radical channels.

A similar conclusion was reached by a study of radical Brazilian anti-Soros channels [50]. The presence of links to professional media outlets is substantial, although Junk news outlets are even more linked. The problem that arises is the ability of users to differentiate one from the other and separate misleading sources from professional news sites [51]. We believe that the average user has problems with this identification, so verification is a necessary process since these radical channels would be a type of fake channels like the ones we propose in RQ3. Verifying all channels linked to a professional media outlet is almost an obligation of managers as journalists and truth seekers.

6. Limitations

This is the first paper that analyzes Telegram channels used by media outlets. There is no exhaustive list of this type of channels. For this reason, there could be channels left out of the study. We have yet to find any, but we have an active search to locate them to use them in our subsequent research, detailed below.

7. Conclusions and Future Research

This paper contemplates a detailed analysis in which the fundamental conclusion is that the media are not giving Telegram consideration, taking advantage of all the possibilities of a new medium. A place where the publisher has complete control of what appears under its brand, something that other social networks or news distribution systems do not always facilitate. Telegram would allow direct and personalized contact with subscribers, even where there may be sporadic readers who are not compelled to subscribe.

Another feature that the media outlets are not taking advantage of is hashtags. Hashtags in Telegram are more potent than Twitter, particularly as an information retrieval tool. Wise use of hashtags would allow converting news streams into real-time and robust databases of very high informative value without additional costs in their data servers. The integration of automatic posting systems and multimedia integration is also rarely used.

We hope that with this paper, media outlets will consider this tool's potential uses, inspired to exploit all the capabilities of this application to progress toward a new space of editorial possibilities. Currently, media outlets have lost some control over information distribution, but with Telegram, they could recover this control.

This initial study has been highly enlightening and presents us with a series of future lines of research on which our work will continue. We will cross our ranking data with other online audience data to identify the channels above their target audience. As future research, we will continue to investigate this issue. We aim to extend the work to media outlets in other countries to confirm if the identification and verification problems are specific to Spain or a much more widespread problem.

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Notes

- ¹ In Scopus, we have delimited the subject category Communication with a long query. See at: <https://www.ugr.es/~victorhs/tquery.txt>, accessed on 6 August 2022.

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