











of related misinformation on social media. It is estimated that they reach 59 million followers through four fundamental networks: Twitter, Facebook, YouTube, and Instagram (McNamara, 2021).

## 2. Objectives

When the first year of home confinement was completed (March 14th, 2020-March 14th, 2021), the question was whether hoaxes about the virus were still being produced or, on the contrary, interest had decreased: What fake news stories have been generated a year later? Are hoaxes related to COVID-19 still the subject of most of the fake news that circulates? What is the origin of fake news? What or who is fake news about? To know what the situation is in Spain regarding hoaxes, in general, and fake news about COVID-19, in particular, the presented research has been carried out.

## 3. Methodology

To discover what the map of fake news is on the first year of the pandemic (specifically, the anniversary of the first state of alarm and home confinement in Spain -March 14th, 2020-), content analysis of all fact-checks published by the two fact-checking platforms with the longest history in Spain has been carried out: Maldito Bulo and Newtral. The reasons why they have been selected are based on their own experience: they are fact-checkers attached to the Poynter international fact-checking network, they have independent financing, and they have a national scope.

In this sense, for the temporal delimitation, the same guidelines as Salaverría et al. (2020) have been followed, and the period analyzed was one month. Specifically, the fake news detected from March 14th to April 14th, 2021, a period that coincides with the first anniversary of the start of home confinement, as indicated, has been analyzed.

**Table 1.** Summary of the analyzed fact-checks.

	March 14th – 31st	April 1st- 14th	Total
<b>Maldito Bulo</b>	105	93	198
<b>Newtral</b>	32	25	57
<b>Total</b>	137	118	<b>255</b>

Source: Own elaboration

The research has not been limited to fake news about COVID-19 but the sample has been made up of all the fact-checks published by the two platforms, to determine the importance that hoaxes about the pandemic have regarding disinformation about various other topics.

To carry out the content analysis, a coding table has been prepared, in which various variables were considered, such as the fact-checking platform, the topic of the fake news was, its protagonists, the origin of the hoax, the transmission routes, the tone of the hoax, its language and format, as well as the day of the week on which the fact-checking was carried out.

**Table 2.** Coding table

<b>Hoax Fact-checking Platform</b>	Maldito Bulo and Newtral.
<b>Topic on which the fake news is about</b>	COVID-19 or not COVID-19. Within the COVID-19 option, vaccines, masks, etc.; in the not COVID-19 option, political debate, scams, immigration, among others.
<b>Protagonists of the hoax</b>	Political leaders, political parties, institutions, etc.
<b>Origin of the hoax</b>	Political leaders, political parties, media, among others.
<b>Dissemination platform or route of transmission of the hoax</b>	Social networks, media, email, etc.

<b>Hoax tone</b>	Positive –when reference is made to beneficial consequences or outstanding actions-; Negative –when you want to harm some group/person, when it contains insults, profanity, or coarse words- or Neutral –when supposed data is offered, without entering into evaluations or coarse comments.
<b>Language and format of the hoax</b>	Text, audio, video, etc.
<b>Fact-checking day of the week</b>	From Mondays to Sundays.

Source: Own elaboration

From this coding table, the 255 fact-checks that Maldito Bulo (N: 198) and Newtral (N: 57) carried out during the analyzed month were studied. In a first analysis, great differences were detected between these two platforms, both in the number (Maldito Bulo publishes many more fact-checks than Newtral) and in the topic of the detected hoaxes, so it was decided to analyze their entirety. In the case of Newtral, the fact-checks of the three categories they establish have been analyzed: fakes, fact-checks, and articles.

#### 4. Results

One year after home confinement, the disinformation detected by Maldito Bulo and Newtral is no longer mostly about the pandemic. In total, just over a quarter of the hoaxes (28%) are related to the virus, while more than 71% are misinformation on issues unrelated to the pandemic. However, there are differences between Newtral and Maldito Bulo since Newtral presents more content about COVID-19 (38% of the fake content detected by this fact-checking platform is about COVID-19) than Maldito Bulo (25%). The trend continues in both March and April. During the two months, more disinformation has been detected on various topics than on COVID-19.

##### 4.1. Topic of hoaxes

On both platforms, the issue related to the pandemic that has been denied the most is that of vaccines. Thus, hoaxes about vaccines account for 54% of all the lies spread about COVID-19 in the case of Newtral and 48% in the case of Maldito Bulo.

The two platforms also coincide in the second most detected COVID-19 issue: that of masks. But from then on, so many similarities are no longer detected since it is the aid that ranks third in the case of Newtral and the origin of the virus in Maldito Bulo. Curiously, neither Newtral publishes fact-checks about the origin of the virus nor Maldito Bulo on aid.

Virus variants; the virus in other countries; measures allegedly taken by the authorities; alleged statements by political leaders; alleged remedies, medical treatments, and consequences of the use of PCR are the main issues on which the fact-checks analyzed with COVID-19 as the protagonist deal.

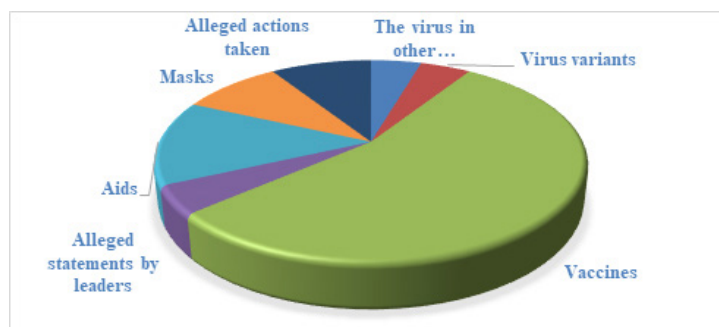
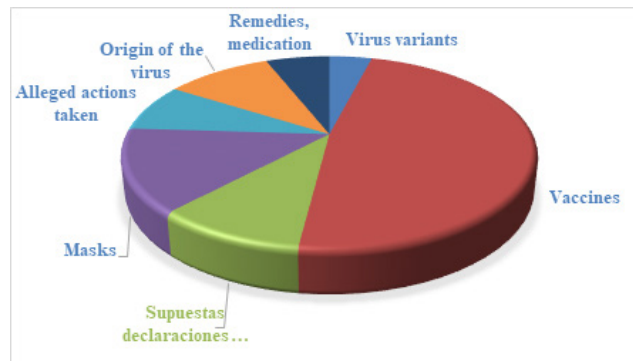


Chart 1. Content of the fact-checks analyzed about COVID-19 in Newtral.

Source: Own elaboration.

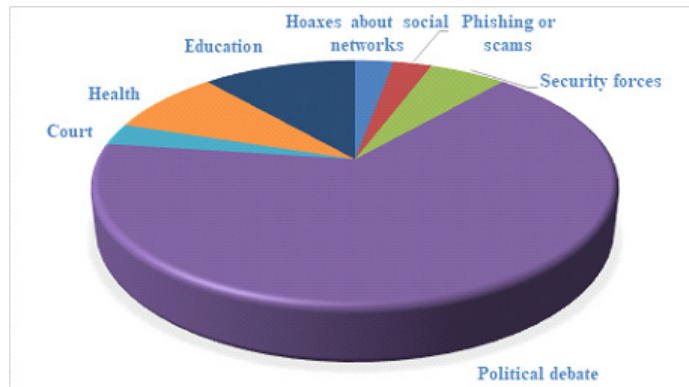


**Chart 2.** Content of the fact-checks analyzed about COVID-19 in Maldito Bulo.

**Source:** Own elaboration.

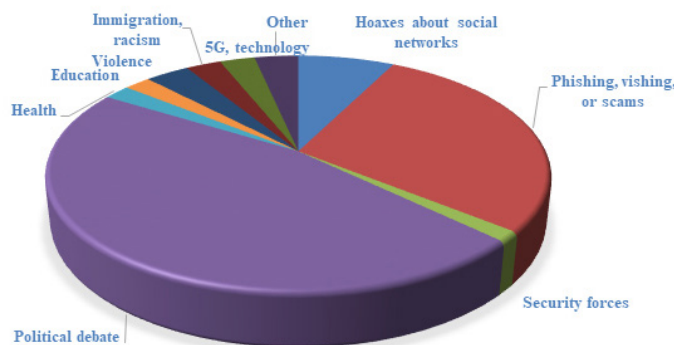
However, most of the hoaxes detected by the fact-checkers are not about COVID-19 but various other topics. Both Newtral and Maldito Bulo coincide in detecting fake content linked to national and international political debate: more than half of hoaxes unrelated to the pandemic are related to political debate.

Besides this topic, Maldito Bulo dismantles fake news about phishing, vishing, or scams; related to social networks and troll accounts; violence (sexism, terrorism, etc.); immigration, racism, xenophobia; 5G, technology, and robotics; health; education; security forces and bodies; and others, like nature. For its part, Newtral denies, besides hoaxes about the political debate, others that deal with education; health; security forces and bodies; lies related to social networks; phishing, and courts.



**Chart 3.** Other content identified in Newtral's fact-checks.

**Source:** Own elaboration.



**Chart 4.** Other content identified in Maldito Bulo's fact-checks.

**Source:** Own elaboration



## 4.2. Protagonists of the analyzed fact-checks

The main fake news detected have as protagonists the Government of Spain (more than 8%), regional governments, and other institutions. In other words, the hoaxes deal with these institutions and fake decisions or fake measures are attributed to them. Between the three, they account for almost a quarter of all fake information, specifically, 22.8%. Its prominence is maintained both with news about COVID-19 and other topics.

As for the political leaders, Pablo Iglesias is the one who stars in the most hoaxes, perhaps because the study period coincides with the end of his position as Vice President of the Government when he presented himself as his party's candidate in the regional elections in Madrid. In second place are Pedro Sánchez and Santiago Abascal, who star in the same number of fake news.

The high number of hoaxes (more than 4%) about international political leaders, from different institutions, is striking. Likewise, companies, entrepreneurs, and business associations stand out, as they are the protagonists in 10% of the fake content detected. Hoaxes about companies generally address issues unrelated to the pandemic.

To a lesser extent, hoaxes that have as a protagonist religious organizations and religious leaders; feminist organizations; LGTBI+ collective; immigrants; NGOs; other third sector organizations; mutual and private insurance; hospitals, health residences and organizations; educational centers, teachers, students; and nature (especially animals) have also been dismantled.

**Table 3.** Protagonists of hoaxes.

PROTAGONISTS OF HOAXES	NEWTRAL	NEWTRAL NO COVID-19	MALDITO BULO COVID-19	MALDITO BULO NO COVID-19	TOTAL
Pedro Sánchez	1			2	3
Pablo Casado		1		1	2
Santiago Abascal		2		1	3
Pablo Iglesias		2		10	12
Other political leaders		2	1	11	12
PSOE			1	1	2
PP		1	1	1	3
VOX				1	1
UP				8	8
Other parties		1		1	2
King and Queen, Emeritus King and Queen				2	2
Central government	4	3	5	9	21
Regional governments	2	4	8	6	20
Local governments				2	2
Judiciary				1	1
Legislative power	1	3			4
European Union	1	2	3	3	9
Other countries outside the EU	2	1	3	3	9

International leaders	3	1	1	6	11
Security forces and bodies		1	2	3	6
Other institutions			1	14	15
Media			1	3	4
Scientific community			3		3
Health workers	2		3		5
Artists and people of culture, movies, series, theater, etc.			1	3	4
Companies, entrepreneurs, business associations, department stores		2	8	17	27
Famous people (influencers, collaborators, etc.)				2	2
Other famous people (former politicians, athletes, and other professionals)	2	5		3	10
Unknown people	2	2		1	5
Fake social media accounts		1		1	2
Religious organizations and leaders			1		1
Feminist organizations				7	7
LGTBI+ collective				1	1
Immigrants				7	7
NGO				3	3
Other third sector organizations				1	1
Mutual and private insurance			1		1
Big surfaces			1		1
Hospitals, residences, and health organizations	1		1	3	5
Educational centers, teachers, students				1	1
Nature (animals, etc.)	1			3	4
Other		2	2	8	12

Source: Own elaboration.

### 4.3. Origin of the hoax

Anonymous people or organizations are the creators of 30% of the hoaxes, unknown people or organizations of 20%, and famous people of almost 10%. In other words, half of the misinformation detected has been created by people who are not socially known or by people whose identity is unknown. The same thing happens with hoaxes outside the pandemic as with misinformation about COVID-19. As for the hoaxes created about COVID-19, it should be noted that sometimes the origin lies with denialist organizations and people (mainly, hoaxes about vaccines and fake news about masks).

It is also striking that more than 15% of hoaxes have emerged in the media. Curiously, Maldito Bulo is the platform that supervises the media the most since Newtral has not detected any hoax in the analyzed period.

For their part, according to what was published by the fact-checkers, it is the right-wing and far-right parties, parties currently in opposition in Spain, who have created the most hoaxes in the analyzed period. However, the political parties, as well as the leaders of the formations that make up the coalition government in Spain, are the ones that have spread the fewest hoaxes.

Finally, another significant fact is that in 15% of the cases, Newtral and Maldito Bulo do not specify the origin of the hoax in their fact-check. In this percentage, therefore, who is behind these fake contents is unknown.

**Table 4.** Origin of the hoax.

ORIGIN OF THE HOAX	NEWTRAL COVID-19	NEWTRAL NOT COVID-19	MALDITO BULO COVID-19	MALDITO BULO NOT COVID-19	TOTAL
PSOE			1		1
PP		3			3
VOX	1	2		1	4
UP		1			1
Other parties	2	1			3
Pedro Sánchez	1				1
Pablo Casado	1	1			2
Santiago Abascal	1				1
Pablo Iglesias					0
Other politicians	1	4		1	6
Media			14	26	40
Journalists				1	1
influencers	1		1	1	3
Other famous people or organization	3	2	6	9	20
Unknown people or organization	1	6	10	36	53
Anonymous people or organizations	1	1	13	63	78
Not specified	9	15	5	10	39

Source: Own elaboration.

#### 4.4. Transmission and intent of the hoax

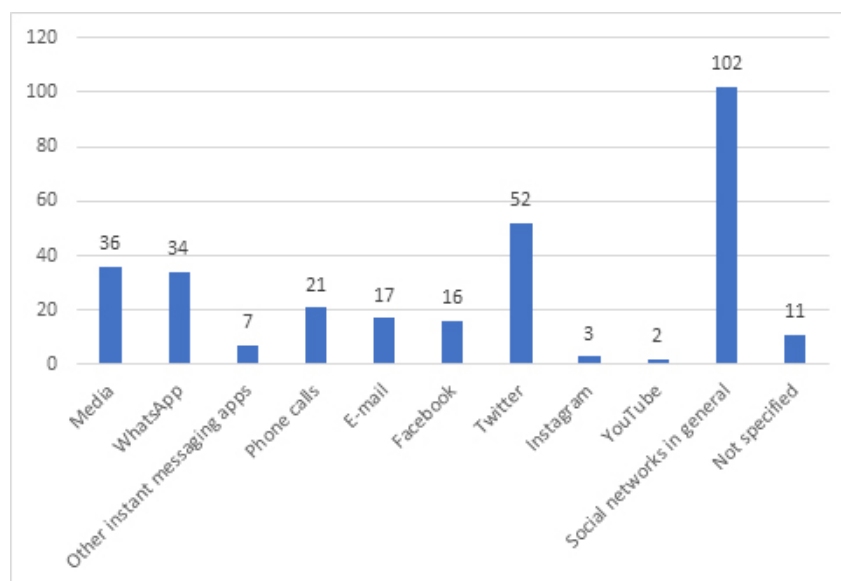
In more than 90% of the hoaxes detected by the fact-checking platforms, the content is clearly contrary to some person or organization or contains insults, bad words, or foul language against those people or organizations, that is, it is disinformation that pursues the discredit of said personalities or institutions. This negativity is greater in the case of hoaxes about the pandemic (91%), especially in the case of those detected by Newtral (95%).

In only 1.5% of cases, fake content refers to beneficial consequences or notable actions of a person or group, that is, they can be classified as positive. For their part, 7.8% present a neutral tone, limiting themselves to offering data, without entering into evaluations, and without falling into foul language or insults.

Where does the hoax spread and circulate? The results show that social networks are the main transmitters of disinformation. In 40% of the cases, it is indicated that the hoax is circulating through various social networks. Regarding the networks, the results show that Twitter is the network in which fake content is spread the most (20%). The 13% of hoaxes that circulate through the media and the 13% of hoaxes that circulate through WhatsApp are also very significant.

It is surprising that 8% of the hoaxes detected were distributed by phone calls and that there is more dismantled fake telephone information than there was distributed by email (7%). The phone hoaxes have been detected, in their entirety, by Maldito Bulo. These fake news stories mainly refer to scams in the form of phishing and vishing.

To a lesser extent, fact-checking platforms have also dismantled lies circulating on Facebook, instant messaging (not WhatsApp), Instagram, and YouTube. In only 4% of cases was it not specified where the hoax had been distributed.



**Chart 5.** Hoax transmission medium.

**Source:** Own elaboration.

What days of the week do they post the most fact-checks? The results show that Tuesdays, followed by Mondays and Wednesdays, are the days when more fake news is uncovered, although, on weekends, both Saturdays and Sundays, the platforms continue their work of highlighting the circulation of hoaxes

In this sense, there are some differences between Newtral and Maldito Bulo. While Newtral shares more fact-checks on Tuesdays and Wednesdays (Wednesdays especially refer to hoaxes on topics other than the pandemic), Maldito Bulo does so on Mondays and Tuesdays.

#### 4.5. Hoax language

The majority of fake news detected on both platforms is based solely on text: in 41% of cases, the hoax only contains text. The second most used option is the text and image option (27%), which is located especially in the verifications shared by Maldito Buló. In 18% of cases, the denied news is distributed in video format, with Newtral detecting this type of content to a greater degree.

To a lesser extent, the platforms also dismantle hoaxes in audio (almost 8%) and memes/still images (5.5%). In some cases, Newtral and Maldito Buló do not indicate the language of the hoax, although this happens very rarely (less than 2%).

#### 5. Discussion and Conclusions

A year after that March 14th, 2020, when the state of alarm came into force in Spain and home confinement occurred, it seems that interest in the pandemic has decreased or, at least, much less fake news is being spread about COVID-19. If we compare the results of this study with those of Salaverría et al. (2020), López-Pujalte and Nuño-Moral (2020), and Sánchez-Duarte and Magallón (2020), we confirm a significant decrease in hoaxes about the pandemic, besides a drop in fact-checking in general.

Pandemic-related fake news now accounts for just over a quarter of all fake content identified by fact-checkers. In other words, almost three-quarters of the hoaxes deal with issues unrelated to COVID-19, focusing on political issues unrelated to the health crisis, phishing or scams, immigration, etc. If a year ago the political lost interest (Salaverría et al., 2020), it seems that today it recovers it. For this reason, it is not surprising that the institutions (the Government of Spain, the autonomous governments, and other administrations) are the target of fake news or that many hoaxes go against those who hold power at the moment, as has already been collected in previous works (Rodríguez-Fernández, 2019; Del-Fresno-García, 2019).

In favor of more strictly political issues, the number of hoaxes about the pandemic decreases. Even so, the high volume of misinformation detected about vaccines is very significant. Therefore, everything related to the vaccination process does arouse widespread interest. It should be considered that the denial movement, although not a new phenomenon, has been quite prominent in recent months, as confirmed by McNamara (2021) and Sessa (2021).

Along these lines, it has been proven that anonymous people or organizations (their identity is not known) create the most hoaxes, followed by unknown people or organizations (not socially recognized). Under the protection of supposed anonymity is how many fake news stories originate that, on almost all occasions (90%), seek to harm some person or group.

However, well-known people or organizations are also generators of hoaxes. This is the case of political leaders and parties, mainly from the opposition and right or far-right parties. These results coincide with the conclusions of Edelson et al. (2021).

Likewise, the traditional media are also creating and spreading fake news. But the media are not the main disseminators of fake news, social networks are. Although Twitter is the network in which the most hoaxes have been detected by the fact-checking platforms, the most common is that they are not distributed only in one social network but in several.

The number of fake contents detected on WhatsApp (13%) is also significant, although this result differs from the studies by Fernández-Torres, Almansa-Martínez, and Chamizo-Sánchez (2021), which revealed greater importance of instant messaging in the spread of hoaxes, having fake news about the pandemic as its main topic.

Lastly, the fake news dismantled by Maldito Buló and Newtral contain exclusively text or text and image, video and audio are used to a lesser extent. The speed in the creation of fake news and the lack of resources of the authors can condition the used language.

It should be noted that throughout this work the contents, characteristics, issuers, and forms of dissemi-

nation of the fact-checks collected in Spain have been exposed. Thus, and for future lines of research, it would be interesting to make comparisons with fact-checks shared in other countries, to identify similarities and even detect possible orchestrated campaigns, such as those issued by anti-vaccine movements. Similarly, it is of interest to continue doing this analysis every anniversary of the origin of COVID, while the pandemic lasts.

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