

Disinformation in Spain one year after COVID-19. Analysis of the Newtral and Maldita verifications

Desinformación en España un año después de la COVID-19. Análisis de las verificaciones de Newtral y Maldita

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RESUMEN

Introducción. Un año después del inicio del estado de alarma en España se ha realizado un estudio para comprobar cuál es la situación de las noticias falsas. **Metodología.** Se ha realizado análisis de contenido de todas las verificaciones realizadas por las plataformas de fact checking Maldito Bulo y Newtral durante el mes del aniversario (14 de marzo a 14 de abril de 2021). En total, se han analizado 255 fact checks. **Resultados.** Son las noticias falsas sobre el debate político, al margen de la pandemia, las que más se están difundiendo. Los contenidos relacionados con la crisis sanitaria más difundidos son los vinculados con las vacunas y el proceso de vacunación. Casi una cuarta parte de los bulos tiene como protagonista al Gobierno de España, a gobiernos autonómicos y a otras instituciones, siendo el Ejecutivo español del que más se habla. Por el contrario, la mitad de las informaciones falsas detectadas han sido creadas por personas que no son conocidas socialmente o por personas cuya identidad se desconoce, también por los medios de comunicación y partidos de la oposición. **Conclusiones y Discusión.** Encontramos que las noticias falsas sobre la COVID-19 suponen un año más tarde poco más de una cuarta parte de todos los bulos existentes, lo que supone un claro descenso en comparación con los primeros meses de pandemia. Las noticias falsas continúan siendo difundidas especialmente por Twitter y WhatsApp.

PALABRAS CLAVE: noticias falsas; desinformación; verificación; infodemia; COVID-19; España; redes sociales.

ABSTRACT

Introduction. One year after the beginning of the state of alarm in Spain, a study has been carried out

to check the situation of fake news. **Methodology.** A content analysis of all the checks made by the fact checking platforms Maldito Buló and Newtral during the month of the anniversary (March 14 to April 14, 2021) has been carried out. In total, 255 fact checks were analyzed. **Results.** The fake news that are spreading the most are related to the political debate, beyond the pandemic. The most disseminated content related to the health crisis are linked to vaccines and the vaccination process. Almost a quarter of the hoaxes have the Spanish Government, regional governments and other institutions as protagonists, with the Spanish Executive being the most commented. On the other hand, half of the false information detected has been created by people who are not socially known or whose identity is unknown, as well as by the media and opposition parties. **Conclusions and Discussion.** We found that fake news about COVID-19 account one year later for a little more than a quarter of all existing hoaxes, which is a clear decrease compared to the first months of the pandemic. Fake news continues to be spread especially by Twitter and WhatsApp.

KEYWORDS: fake news; disinformation; verification; infodemic; COVID-19; Spain; social networks.

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CONTENT

1. Introduction. 2. Objectives. 3. Methodology. 4. Results. 5. Discussion and Conclusions. 6. References. 7. Curriculum Vitae.

1. Introduction

With the COVID-19 pandemic, the entire world has experienced another type of pandemic, the so-called “infodemic” (Masip et al., 2020), which led the World Health Organization to warn that much of the information that was circulating was fake (WHO, 2020). In this context, of health, economic, and political uncertainty, the work of fact-checkers became even more necessary, by offering content of local impact while cooperating with international organizations. It should be noted that many Spanish fact-checkers have adhered to the International Fact-Checking Network of the Poynter Institute, which brings together fact-checkers from all over the world. We find among them Maldita, an independent project created in 2018 by Clara Jiménez and Julio Montes; Newtral, a startup founded by journalist Ana Pastor in 2018; Efe Verifica that was born in 2019 as a specialization of the information agency Efe, and Verificat, an independent project with a local focus, created in 2019. They are joined by international media fact-checkers such as AFP Factual, which collects activity in Spanish; fact-checkers linked to national media such as Verifica RTVE or La Chistera (El Confidencial) or specialized solely in health activity such as Salud sin Bulos.

To the work of the fact-checkers and the media, the numerous academic works on pandemic and disinformation (Salaverría et al., 2020; Castillo-Esparcia, Moreno-Fernández and Capriotti-Peri, 2020; Fernández-Torres, Almansa-Martínez, and Chamizo-Sánchez, 2021; López-Pujalte and Nuño-Moral, 2020; Sánchez-Duarte and Magallón, 2020; Gil Ramírez, Gómez de Travesedo Rojas, and Almansa Martínez, 2020) and on the management of institutional communication in times of crisis are added (Castillo-Esparcia, Fernández-Souto, and Puentes-Rivera, 2020). Research works that confirm that, during the first months of the pandemic, the circulation of fake news in Spain was massive, with fundamentally political intentions (Noain, 2021).

1.1. Information disorders and misinformation

For several years now, society has been facing new communicative scenarios in which misinformation, or so-called fake news, are the protagonists. Electoral processes, referendums, social and health crises have been affected by these information disorders (Wardle and Derakhshan, 2017) that seek to generate social upheaval to benefit their promoters. The complexity of this mediamorphosis lies in the difficulty in determining the impact and characteristics of these intentional cascades of content, which do not always viralize false information, but also biased and malicious content that intoxicates the public sphere (Del-Fresno-García, 2019).

The interest in this phenomenon has fueled the publication of numerous works focused on understanding its architecture and particularities through the classification of false content. Wardle (2017) establishes seven types of disinformation: (1) satire or parody (2) use of inaccurate contexts; (3) impostor content (4) fabricated content (5) false connections (6) false context, and (7) manipulated content. Salaverría et al. (2020) point out that this categorization, although useful, mixes models with disinformation procedures, as well as the taxonomy of false content offered by Tandoc Jr., Ling, and Lim (2017) on which they clarify that it includes variants that are more persuasive than false, such as advertising, public relations, and propaganda content. However, Tandoc Jr., Ling, and Lim (2017) delimit this persuasive force by establishing two levels (high and low) on two variables: “factuality” or the degree to which the contents are based on facts; and the intention of the promoter, which alludes to the objective that the deception seeks.

It is observed that intentionality is one of the fundamental premises when establishing taxonomies such as the one delimited by Althius and Haiden (2018), which establish four levels very similar to those previously exposed: satire, bullshit, propaganda, and disinformation. Also, based on motivation, Maasberg, Ayaburi, and Yoris (2018) identify eight types of content: real news, fake news, satire, bias, conspiracy theories, rumor, state-sponsored propaganda, unintentional misinformation, false statements, and sensationalist publications.

In Spain, the study and general categorization of disinformation have focused on its impact on the communication of organizations (Rodríguez-Fernández, 2019a; Martín-Herrera and Micaletto; 2021) and on political communication, addressing post-truth (Rodríguez-Fernández, 2019a; Martín-Herrera and Micaletto; 2021). Ferrandíz; 2019) or the categorization of hoaxes in electoral campaigns (Paniagua; Seoane and Magallón, 2020).

The presence of false attributions of actions, images, false statements, or photomontages, among other false content, is also observed in these classifications. In a more specialized way, deepfake taxonomies are beginning to be registered (Gómez-de-Ágreda; Feijóo and Salazar-García, 2021), more complex to verify as they are created with artificial intelligence.

It is also worth paying attention, in the case of political communication, to the web pages that support this false content. These “disinformation media” are “web pages that adopt the aesthetics and form of the media to spread propaganda and whose false, distorted, or evaluative content contributes to benefiting a political or social cause” (Rodríguez-Fernández, 2021).

They are the protagonists of information disorders by generating an alternative reality that is magnified by the interrelationships with related pages and with interactions on social networks. According to a Digital New Deal study (Kornbluh and Goodman, 2020), participation and engagement with these pages increased by 102% since the 2016 US presidential election. In their digital strategy, social networks are fundamental vehicles of diffusion but also the link-building work with similar pages that contributes to creating and reinforcing social bubbles that promote polarization (Nikolov et. al., 2015; DiFranco; Gloria-García, 2017).

Thus, the disinformation of extreme right-wing ideologies causes more adherence and, therefore, more viralization than those of the extreme left, registering an average of 426 interactions per thousand followers per week (Edelson et al., 2021). Achieving high viral content or manipulating social interactions is also an objective of manipulation and a fast track to position issues in public debate.

Fact-checkers acknowledge finding more misinformation in politics, followed by hoaxes about immigration—in different situations, such as events or crises, but always from hate speech—and, lastly, health and science (Rodríguez-Fernández, 2019b). It should be noted that in crises, users tend not to check the information and believe exclusively what they see on the internet (Bairong and Zhuang, 2017).

This situation of social weakness is taken advantage of by the promoters of this type of practice to give credibility to their messages. In fact, although it is in 2010 when the first fake news about electoral processes in Massachusetts began to be recorded, it is not until 2014 when the first intentional information begins to be observed that blames immigrants for being carriers of the Ebola virus and which

also serve as a pretext for some North American politicians to debate closing borders (Waldrop, 2017).

1.2. Disinformation during the COVID-19 pandemic

The COVID-19 pandemic has generated a historical social situation that contributes to a notable increase in misinformation related to the virus. “We are not only fighting against an epidemic but also against an infodemic” declared in February 2020, the Director-General of the World Health Organization (WHO), Tedros Adhanom. The term “Infodemic” has been used since then to identify disinformation that refers specifically to the virus, but also to content that has been used as a pretext to affect other governments, political leaders, or institutions.

The research works carried out during the pandemic have contributed to delving into some key aspects of this type of disinformation, such as the issuers, the most used channels, the intensity, or the type of viralized content depending on the social context. Gallotti et al. (2020) developed during the first phase (January-March 2020) an infodemic risk index, based on the analysis of 112.6 million tweets. They concluded that G8 countries such as Russia or Germany presented a higher infodemic risk than developing countries such as Thailand or the Philippines and observed that the average infodemic decreased as the number of infections increased. Also in this first stage, Pérez-Dasilva; Meso-Ayerdi, and Mendiguren-Galdospín (2020), observed the conversation on Twitter, noting that some institutional actors, such as Donald Trump, then President of the United States, contributed, supported by related media, to the spread of disinformation. The authors also point out that although Italy and Spain were two of the most affected countries, they did not have a special role in the global conversation.

In Spain and since the start of the pandemic, Maldita has detected 1,027 lies, false alerts, and misinformation about the coronavirus (Maldita; 2021). The content and intensity have been adapted to the evolution of the pandemic itself. López-Pujalte and Nuño-Moral (2020) perceived an increase in hoaxes after the declaration of the State of Alarm (March 14th), reaching higher values between March 20th and April 11th. Observation also made by Sánchez-Duarte and Magallón (2020) on the study of verifications that goes from 32.5% before confinement to 67.5% in the month after.

From the self-perception of citizens, Losada, Rodríguez-Fernández, and Paniagua (2020) collect during the first phase of confinement (March and April 2020) that 93% of those surveyed (N: 1,823) claimed to have received fake information or hoaxes. A very similar percentage to that registered by Fernández-Torres, Almansa-Martínez, and Chamizo-Sánchez (2021), in which 92% of respondents acknowledged having received disinformation (N: 1,115), identifying WhatsApp as the preferred channel (86%), followed by Facebook (58%), and Twitter (31%).

These channels, even in the same order, are also collected by Salaverría et al. (2020) who conducted a content analysis of verifications (N: 292) between April 20th and 26th, categorizing much of it as deception (64.4%), followed by decontextualization, and exaggeration (17.1% respectively) and, to a lesser extent, jokes and memes (1.4%). Regarding the most widely distributed types of misinformation, and also on the verification study (N: 166), Sánchez-Duarte and Magallón (2020) determined that 24.7% were hoaxes about prevention and measures, respectively, 21% did allusion to hoaxes about contagion, and 28.9% to other issues. Similarly, Castro et al. (2020) concluded that one in five hoaxes dealt with the prevention or cure of the coronavirus, argued on the principle of medical authority, and fundamentally promoted the use and consumption of substances of natural origin. Conclusions were similar to those obtained by Moreno-Castro et al. (2020) who, after analyzing text and video chains shared on WhatsApp, identified that, in the majority, the subject presented themselves as medical personnel (36.5%) or as anonymous person (30.9%).

The medical community has been openly concerned about the impact of misinformation. According to data from the III Study on Hoaxes in Health, 92% of the health professionals surveyed believe that the crisis has increased the number of hoaxes, and 3 out of 4 claims to have seen their patients worried about fake news. More disturbing are the data linked to treatments, since 65% of those surveyed have attended consultations about treatments for covid without scientific evidence (Ramírez; 2020). Denialism and anti-vaccine movements seem to have had, precisely with the disinformation of political intention, quite a leading role in this crisis.

Magallón (2020) points out that during the first stage of the crisis, a greater presence of hoaxes about

contagion stood out, while as the confinement was relaxed, political misinformation abounded. It cannot be ignored that the pandemic has been an argument used to create narratives that affect certain countries and groups. EUvsDisinfo (2020a) identified that, among the narratives about COVID-19 with a political focus, those that exposed that the United States had created the virus, that the European Union was not facing the crisis, attacks on China as the alleged creator of the virus, or the idea that the pandemic was part of a global conspiracy, among others, stood out. The European Union also warned about false theories that pointed to Jews as the creators of the virus (La Vanguardia; 2020).

Vaccines have also been the protagonists of disinformation in the pandemic. The European External Action Service exposed that foreign state actors have “sensationalized and misrepresented information on the safety of vaccines manufactured in the West and have fueled anti-vaccination movements within the EU” (EUvsDisinfo, 2020b). The G7 countries have also publicly stated their intention to develop common guidelines to combat Russian and Chinese disinformation aimed at generating mistrust about electoral processes and vaccines (Euronews; 2019).

1.3. Organization and discourse of anti-vaccine movements

Far from the digital sphere, the first anti-vaccine movements were born in the second half of the 19th century when the United Kingdom promoted several laws to force its population to be vaccinated against smallpox. Then, as incipient pressure groups, the Anti-Vaccination League, created in 1853, and later, in 1867, the Anti-Compulsory Vaccination League, were formed. Between 1870 and 1880, numerous pamphlets, books, and journals against vaccination were published. Their influence began to spread to other European countries and in 1872, vaccination rates in Stockholm had fallen by 40% while in Sweden the decline reached 90%. Finally, the pressure of these first anti-vaccine movements forced the British Government to issue, in 1898, a new Vaccination Law in which sanctions were eliminated and a conscientious objection was included for the first time, allowing parents who did not believe that the vaccination was effective or safe to obtain an exemption certificate. The situation was also replicated in the US where anti-vaccine leagues also managed to repeal anti-vaccine laws (Wolfe and Sharp, 2002).

What were originally constituted as pressure groups are now denier movements that threaten herd immunity through a discourse focused on the discussion of the safety and effectiveness of vaccines. The ultimate goal is to generate mistrust around health personnel and official information sources, mainly the Government and pharmaceutical companies (Santillán and Rosell, 2019).

Schmitd and Betsch (2019) identify five basic tricks used by deniers in the construction of their argument: (1) resort to fake experts (such as a healer), (2) appeal to conspiracies, (3) ask for the impossible, for example, that vaccines are one hundred percent safe and effective, (4) use the logical fallacy or the false dilemma, in which two points of view are presented as the only alternatives of thought, and (5) self-selecting the data, a practice also known as cherry-picking, in which information is selected based on argumentation, choosing data, examples, and particular cases while avoiding information that does not meet the argumentative objective.

Among the most popular arguments is a study published in 1998 by Dr. Andrew Wakefield that associated the triple viral vaccine (measles, rubella, and mumps) with autism. The study has been refuted as it was shown that its results were biased since, at that time, the author had applied for a patent for a measles vaccine and he intended to discredit the triple viral in parallel. The journal withdrew the publication from its repository, the rest of the authors retracted the work, and even Wakefield himself lost his medical license due to falsifying evidence (Salleras, 2018). However, the false correlation is still valid.

The pandemic has fueled the disinformation activity of these movements and the social media accounts of anti-vaxxers increased their followers by at least 7.8 million during 2019. It is estimated that 31 million people follow them on Facebook and 17 million people subscribe to similar accounts on YouTube. This translates into a significant economic benefit for social networks: it is estimated that the anti-vaccine movement could generate annual revenues of one billion dollars for social media companies (Burki, 2019). In December 2020 alone, when the vaccination program was launched at the European level, fact-checkers issued 128 articles in 16 countries (Sessa, 2021). Likewise, recent research from the Center to Counter Digital Hate found that just 12 anti-vaxxers are responsible for nearly two-thirds

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
Maldito Bulo	105	93	198
Newtral	32	25	57
Total	137	118	255

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

Hoax Fact-checking Platform	Maldito Bulo and Newtral.
Topic on which the fake news is about	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.
Protagonists of the hoax	Political leaders, political parties, institutions, etc.
Origin of the hoax	Political leaders, political parties, media, among others.
Dissemination platform or route of transmission of the hoax	Social networks, media, email, etc.

Hoax tone	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.
Language and format of the hoax	Text, audio, video, etc.
Fact-checking day of the week	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.

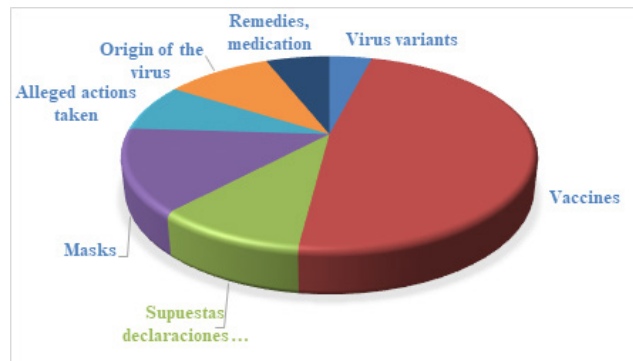


Chart 2. Content of the fact-checks analyzed about COVID-19 in Maldito Bulo.

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.

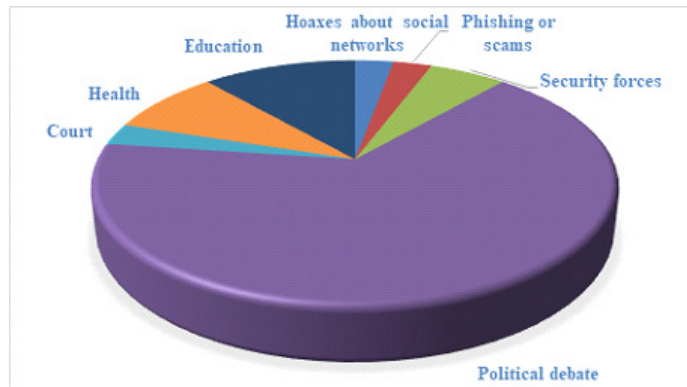


Chart 3. Other content identified in Newtral's fact-checks.

Source: Own elaboration.

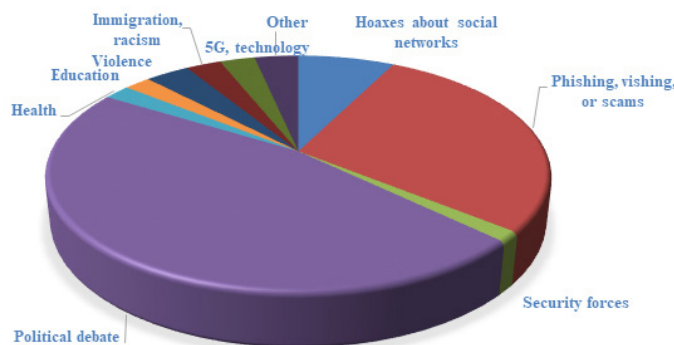


Chart 4. Other content identified in Maldito Bulo's fact-checks.

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.

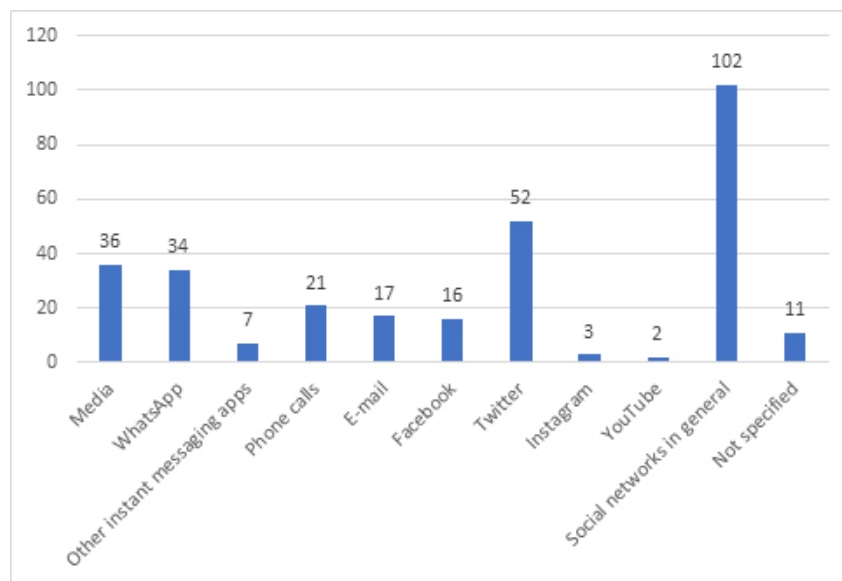


Chart 5. Hoax transmission medium.

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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