DISINFORMATION AND CORONAVIRUS: THE ORIGIN OF FAKE NEWS IN PANDEMIC TIMES

DESINFORMACIÓN Y CORONAVIRUS: EL ORIGEN DE LAS *FAKE NEWS* EN TIEMPOS DE PANDEMIA

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ABSTRACT

A hoax is a falsehood deliberately fabricated to masquerade as the truth. Their origin is uncertain and behind them often hides "the compensation of a frustrated desire of someone or a social group, the need to make public the confidentiality of interests that upset the established order, misunderstandings or distorted interpretations" (Kapferer, 1988, p.18). Fake news is false or misleading information presented as news and develops shared complicity because people do not usually question messages that come from their intimate circle. The main objective of this research is to identify the origin of fake news published in Spain related to COVID-19, for that, we opted for a quantitative methodology that allows us to explore features and useful aspects for their detection and providing empirical evidence regarding misinformation. The results show that as Thucydides announced in the 5th Century a. C. in this war against misinformation two main reasons motivate the origin of the hoax: fear and interest, in several aspects, ideological, economic, and political, and to combat that is indispensable the development of media literacy in all sections of society, as well as a transparent, fluid, and official communication.

Keywords: Social networks; *Fake News;* Hoaxes; Communication; Misinformation; Post-Truth; Verification; Infodemic; COVID-19

RESUMEN

Un bulo es una noticia falsa propagada con algún fin. Diseñados para ser creídos, su origen es incierto, pero tras ellos suele esconderse "la compensación de un deseo

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frustrado de alguien o un grupo social, la necesidad de hacer pública la confidencialidad de intereses que trastornen el orden establecido, malentendidos o interpretaciones deformadas" (Kapferer, 1988, p.18). Las noticias falsas suelen basarse en el rumor, y el medio de éste es informal, creando nexos de complicidad, y es, precisamente, en esta confianza donde encuentra su máximo exponente, ya que no se suelen cuestionar los mensajes procedentes de nuestro círculo más íntimo. El objetivo fundamental de esta investigación estriba en identificar el origen de este tipo de informaciones, para ello optamos por una metodología de tipo cuantitativa que permita explorar los rasgos y aspectos formales de los bulos publicados en relación con la COVID-19, a fin de identificar diversos aspectos útiles para la detección de noticias falsas y aportando evidencias empíricas referidas a la desinformación. El resultado indica que tal y como anunció Tucídides en el siglo V a.C. en esta guerra contra la desinformación hay dos razones principales que motivan el origen de los bulos: el miedo y el interés, en sus diversas facetas, ideológico, económico y político, y para combatirlo resulta indispensable una adecuada alfabetización mediática de la sociedad, así como una comunicación oficial transparente y contrastada.

Palabras clave: Redes sociales, *Fake News,* Bulos, Comunicación, Desinformación, Posverdad, Verificación, Infodemia, COVID-19

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1. INTRODUCTION

The confinement and movement restrictions derived from the global COVID-19 pandemic have caused an unprecedented increase in Internet traffic and the use of new communication technologies. This increase, which the National Institute of Statistics (2020) estimates in more than one million people, up to a total of 32.8 million; has been reflected in all areas, from the use of social networks to the number of hours of television, through the time spent on video games, or the number of series and movies seen on online platforms.

Although it is still too early to determine if this technological expansion is here to stay, the digital environment has indeed undergone a great advance in recent months, especially in areas such as remote work and videoconferencing platforms, technologies that have become massive and have adapted to sectors such as education or medicine. This technological and digital boom has proven its effectiveness in bringing the distant closer together, at the same time that it has contributed to exponentially multiply the amount of information that surrounds us. In fact, according to the Digital 2021 report, carried out by We Are Social (2021), the number of internet users in the world grew by 7.3% during the past year, reaching 4,660 million.

The appearance of the COVID-19 virus and the uncertainty generated by its origin, form of transmission, and consequences have caused a great dependence on information based on the need to give meaning to this new risk situation. This has favored the "resurgence of the leading role of the traditional media, especially

television, and the reconnection to the news of the citizens furthest from the information (Casero-Ripollés, 2020, p.1).

This need for information, together with the confinement, has caused the level of published pieces to reach unimaginable levels, to the point that the health crisis has generated an infoxication of the information ecosystem, which complicates access to "truthful information that offers a rigorous analysis of the context in which we live" (López-Rico et al., 2020, p.78), generating what the World Health Organization has called 'Infodemic', a term that refers to the overabundance of information regarding a subject, both rigorous and false, which causes uncertainty and mistrust among citizens due to the impossibility of discerning the truth from the lie.

According to Lázaro-Rodríguez and Herrera-Viedma (2020, p.5), coinciding with the Decree of the State of Alarm in Spain, "45,294 news items were published in digital media, which represents an increase of almost three times more news compared to 15,434 at the beginning of March". This information overabundance (Keane, 2013) has generated an unprecedented phenomenon and that is that the level of assimilation of new information by the audience has been exceeded and that content saturation has caused an inverse phenomenon, disinformation. Facing a huge amount of information modifies reading habits for others based on the detection of keywords, a non-linear and selective reading that implies a lower level of assimilation of the content, to the point of confusing reading with "clicking", generating a great change in the way of thinking. According to a pioneering report on Internet reading habits, led by University College London and collected by Grau (2008), users spend around 8 minutes reading an electronic newspaper and often jump from one article to another, without going back. In fact, 9.2% of digital press readers only read the headline and 63.7% read the headline and some interesting news, figures quite similar to those who consume news through social networks, 15.1% and 57.8%, respectively.

This cognitive decline, together with an informative oversaturation, as well as the immediacy and continued need to update the content, becomes for Alonso-González (2019) the cornerstone on which the rise of fake news is based, which is rapidly spreading and considered valid. There is no exact formula to differentiate true information and those who, intentionally, generate this type of news with purposes as diverse as fun or generating social alarm take advantage of it.

In the context of the COVID-19 pandemic, the number of fake news has skyrocketed in proportion to the flow of information generated by uncertainty and society's need for knowledge. Just during April 2020 "44% of Spaniards found Fake News on social networks and messaging apps about issues related to COVID-19" (Gallego, 2020), which is why this study aims to determine the different origins of fake news pieces related to the coronavirus, as well as the possible hidden intention behind their creation. For this, up to a total of 943 hoaxes published between February and December 2020e in Spain and that have been denied by the data verification platforms *Maldita.es, Newtral*, and *EFE Verifica*, in charge of combating the infodemic, are analyzed.

1.1. Rumors and misinformation

The medium of the rumor is informal, as it was before the invention of the press. Rumors spread by word of mouth, confirming ties of trust, which causes us to blindly believe in the messages they send us and to distribute them massively without questioning them. To the extent that information is accepted by a group, it becomes official knowledge: it gains notoriety, it frequents the conversation rounds, it becomes the main issue around which each member of the group speaks and positions itself. And with each repetition it affirms itself, thus gaining its conviction power.

With the emergence of social networks and instant messaging apps, the circle of trust multiplies exponentially, and concentric circles are drawn that amplify the dissemination of that message at truly dizzying speeds. Along with the cascade effect, which makes the signal reinforce the more people receive it, another phenomenon comes into play, that of "group polarization" (Sunstain, 2009), which generates biased assimilation of the information that comes from the user's trust network, so that opinions on a specific aspect are strengthened when they are shared with like-minded people, but also when they are discussed with opponents, and in this way, the individual is strengthened in their successes and mistakes. This means that this information is not questioned and that it is automatically accepted as valid since ideological variables such as feelings, opinions, and motivations always come into play when believing something, which would explain why thanks to social networks, unquestionable facts lose the battle against alternative facts and emotions.

In a complementary way, social networks add to the messages other parameters that are equally difficult to control, such as anonymity, participation, and the difficulty to erase the trail, likewise, digital apps allow content to be manipulated to assemble, add, or remove information, thus opening the way to processes of reframing, reassignment of meaning, or recontextualization of information that can alter its meaning. When it is the source who is looking for the journalist, we are faced with "a source spill" and this usually occurs in social networks, which encourage their users to be exposed to the news by eliminating the active search part.

Despite not being a new phenomenon, since during the 18th century they were a powerful tool used by kings, and during the 20th century they served propaganda-based totalitarianism, Fake News has reached heights of unmatched proportions during this 21st century, to the point that in 2017 it was chosen 'Word of the year' by the Collins dictionary. Today, a Google search for the term Fake News yields 1,010,000,000 entries, which shows the magnitude of a phenomenon that continues to grow and highlights the fragility of the concept of truthfulness.

To guarantee this informative authenticity, it is essential to control the production and distribution channels of information, and for this, it is necessary to find out what is behind the profusion of fake news, why this phenomenon has been magnified, what is its origin, and what interest is hidden behind the deliberate creation of uncertain information, above all, with topics as sensitive and of great social significance as the coronavirus, the first great pandemic of the 21st century.

Concerning the reasons behind the creation and dissemination of disinformation, López-Borrull (2020b) establishes a categorization that could explain who the "initial faker" is. On the one hand, he identifies the well-intentioned, people who are not

knowledgeable on the subject but who do not hesitate to advise as if they were an expert on it. Second, the conspiranoids, those who doubt any official information and, nevertheless, give credibility to the minority messages that circulate on social networks about the origin of the disease or the effects of vaccines.

Third, says López-Borrull (2020b), messages of hatred of the different are hidden, those that take advantage of the crisis to stigmatize a specific group, and those that use the information with an obvious intention to harm. Finally, there would be those who are looking for an economic return through attracting traffic to their websites and those who respond to a viral challenge. The researcher at the Barcelona Center for International Affairs, Carme Colomina, calls the latter "hooligans 2.0" because part of these hoaxes "respond to a 2.0 joke" (Blanco, 2020).

1.2. Fact-checking

To face this context of information insecurity and to provide transparency to the online digital ecosystem, the Council of the European Union (2018) approved a couple of years ago an Action Plan against Disinformation that includes that member states support the "creation of teams of data verifiers and multidisciplinary independent researchers with specific knowledge of local information environments to detect and expose disinformation campaigns between different social networks and digital media".

Following this European guideline, Spain announced in November 2020 the creation of a mechanism against disinformation, dependent on the National Security Council, and which aims to "prevent, detect, alert, as well as monitor and respond to this phenomenon" (Order of the Council of Ministers, 2020).

The media and journalism professionals have not been oblivious to this problem, and in response to this trust crisis, they have joined initiatives such as The Trust Project, an international information verification project, which "requires compliance with basic standards, so that the news meets the minimum criteria of credibility and fidelity" (Alonso-González, 2019, p.36). Similarly, fact-checking has emerged after an approach acquires public notoriety, and has nothing to do with the verification before the publication of a news item. This ex-post check (Mantzarlis, 2018) looks for primary sources with a solid reputation that can confirm or refute the published content, as well as the verification of comments made by politicians and other relevant figures.

The census of information verification projects prepared by the Duke University Reporters' Lab (Stencel & Luther, 2020) quantifies fact-checking initiatives in 84 countries at 304, a hundred more than the previous year. Of these, 5 focus exclusively on the verification of medical and public health claims, however, the evolution of the pandemic has had a significant impact on the work of these entities, which is why the International Fact-checking Network has created a collaborative project against COVID-19 misinformation called the #CoronavirusFacts Alliance.

In Spain, there are a dozen verifiers, including *Maldita.es, EFE Verifica,* and *Newtral*, all three of which are members of the *International Fact-checking Network*, which implies a commitment to impartiality, fairness, and transparency of sources, financing,

and organization, as well as a commitment to transparency of the methodology, and open and honest corrections (Pozo-Montes and León-Manovel, 2020).

Since fake news is not fought with censorship, but with more news and more training (López-Borrull et al., 2018), information professionals and social networks have joined forces to find new ways to combat this problem. Thus, the messaging platform WhatsApp has limited the forwarding of messages to stop the advance of hoaxes, while the main social networks have developed programs to detect false information. The main objective is to put technology at the service of truthful information and to reduce the flow of fake news circulating on the Internet.

In this sense, *Facebook*, according to its communication director Lola Baños (personal communication, February 10th, 2020), eliminates up to a million false accounts per day and has launched a notification system, similar to *Google's Fast Check*, to indicate to users whether a news item is fake or not. To do this, it has created an exclusive team, which operates in 80 countries around the world and up to 60 languages, in charge of verifying information and providing the news on the timeline with a veil that indicates the word "fake" if it cannot be proven as true.

In collaboration with portals such as *Snopes* and *Politifact*, *Facebook* (2020) tracks everything that happens on the social network to reduce the spread of Fake News, while also opting for media literacy programs that foster a critical spirit among its users. In its fight against fake news, *Facebook* has removed more than 12 million pieces in the last year and marked 167 million pieces of information regarding COVID-19 as "fake", according to Lola Baños (personal communication, February 10th, 2020).

Twitter has also implemented a system to flag fake news. The platform has devised a tag system that alerts about unconfirmed content and introduces a watermark on tweets whose information has not been verified. Since January 2021, the social network has been testing an independent section, called *Birdwatch* –currently only available to a small group of users in the United States– that allows identifying misleading information and writing notes that provide an informative context.

2. OBJECTIVES

The fundamental objective of this research is to identify the origin of false information that has circulated in Spain concerning the coronavirus between February and December 2020 and that was denied by the main fact-checking platforms in our country.

In this approach we have followed the classification proposed by López-Borrull (2020a), which has been completed with three new categories derived from our study, in such a way that it enriches previous research by providing new evidence on the features and formal aspects of the hoaxes published about COVID-19, while allowing to identify the hidden interest behind their creation, to outline some empirical certainties regarding misinformation and the consequences they generate.

3. METHODOLOGY

The methodology applied in this research is quantitative and attends, in the first instance, to the exploration of fake news about COVID-19 to establish in number and percentage the different origins of hoaxes.

The development of this research has been carried out in three stages that we can identify as newsgathering, discourse analysis to be able to recognize the structure and strategies of the presented arguments, and classification of the pieces based on the categorization established by López-Borrull (2020a) to identify their origin.

To search for false information, the repository of pieces denied by the alliance of fact-checkers, coordinated by the International Data Verification Network (IFCN) to combat the infodemic, has been used. Specifically, the study has focused on the set of news detected and denied by the *Newtral, Maldita.es*, and *EFE Verifica* platforms in Spain. For their selection, it has taken into account their audience ratings, reliable access to their archives over time, and that they were a signatory to the IFCN seal.

To locate the news, the three platforms were monitored between February and December 2020, locating the terms "hoax", "fake news", "COVID-19", and "coronavirus". Once all the pieces had been reviewed, and after a screening process that allowed eliminating those units that were repeated, a total sample of 943 pieces was obtained (*Maldita.es*, 602; *Newtral*, 225, and *EFE Verifica*, 116) whose observations were recorded in a template created with an Excel spreadsheet and whose data were processed with SPSS, a statistical computer program widely used in Social Sciences.

For the quantitative study, variables such as the number of units, month, the format they presented (text, audio, and video), and dissemination platform used (Internet, social networks, and instant messaging apps *WhatsApp* and *Telegram*) were taken into account. To show the frames that this fake news intended to convey regarding COVID-19, content analysis has been opted for, to do so, we have proceeded to identify common patterns that allow determining its origin. For the critical analysis of the discourse, the information has been tabulated based on the topic of its headlines, the analysis of the text of the news, and the additional elements they presented (images and videos) to understand the global meaning of the text, delimit the main topic of the journalistic discourse, and establish the intentionality and motivations of its creators.

The study units were set based on the proposal made by López-Borrull (2020a) about the origin of hoaxes:
- Economic yield: they seek to attract visits to a website.
- Ideological advantage: they aim to stigmatize a social group and feed xenophobic discourses.
- Conspiranoids: global scientific hoaxes that seek to impose another way of seeing the world while expanding their ideas.
- Hooligans 2.0: they aspire to achieve a viral impact and they take the dissemination or creation of the hoax as a challenge.

Once the coding is completed, a second review of the analyzed items is carried out, since during the study it is found that 28% of the hoaxes do not fit the categories previously described. That is why these 264 pieces are encoded around three new categories arising from content analysis. Based on their rhetorical purposes and to define the intention present in the design and circulation of these news items, the new categories were:

- Political objectives: News in which the disinformation about COVID-19 comes "from political agents" (EFE, 2020).
- Geostrategic Character: Information that unleashes systemic tensions in world governance with far-reaching consequences in international relations.
- Fraud: Hoaxes that aim to commit telematic crimes such as pishing or the hijacking of information from electronic devices.

On the final basis of this coding manual, we proceed again to the analysis of the 943 hoaxes, which are classified based on the following main variables.

1. Format: text, audio, video
2. Publication platform: internet, social networks, *WhatsApp*, and *Telegram*.
3. Origin of hoaxes: economic or click-bait, ideological, conspiranoid, Hooligans 2.0, political, geostrategic, and fraud.

To achieve the desired consistency of the study, and despite the limitation of having a single coder, the double review made it possible to clarify the points of discrepancy and to note that the margin of error did not reach 1%. Subsequently, a fourth and final coding of the sample was carried out, the results of which are shown below.

4. DISCUSSION

COVID-19 has caused an exponential increase in misinformation around the world due to the prone breeding ground of fear caused by this disease, of which its origin is still unknown and which has quickly reached the level of a pandemic, but also because of the catalytic role generated by social networks and instant messaging platforms.

The coronavirus in the era of Fake News and post-truth has led to a barrage of hoaxes, stories, and speeches of all kinds that force an effort to distinguish the truth from the lie and responsibility from negligence. Throughout this study, a total of 943 hoaxes related to COVID-19 in Spain, which have been denied by the main fact-checking platforms in our country (*Maldita.es, Newtral,* and *EFE Verifica*) between February 1st and December 31st, 2020 have been analyzed.

Of these, 516 hoaxes have been disseminated through *WhatsApp* and *Telegram*, 369 through social networks (mainly *Facebook* and *Twitter*), and 58 through the Internet. This means that instant messaging apps have been responsible for the dissemination of 55% of fake news (See Graph 1).
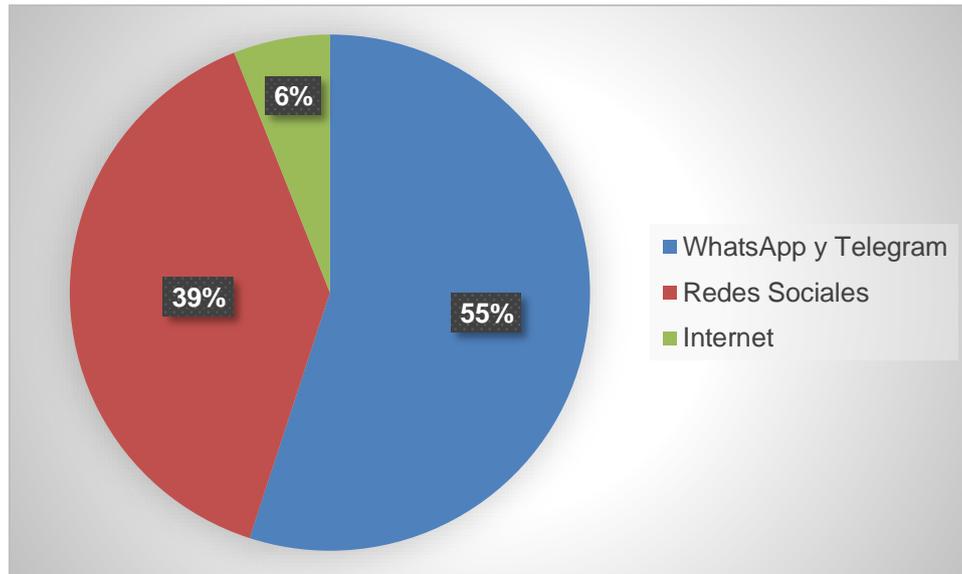
Graph 1: Dissemination mode of Fake News about COVID-19.
Source: Self-made

Regarding the format chosen for the transmission of this fake news, 85% was of the text type, 11% was distributed in video format, and 4% were audio.

Considering their origin, and as can be seen in the following graph (See Graph 2), the most abundant are those that have a conspiracy origin (36%) and that either deny the existence of COVID-19 or point to the harmful effects of vaccines.

The second-largest group, present in 25% of hoaxes, are those whose objective is virality to obtain an economic return derived from the clickbait phenomenon. They are followed (19% of the total) by those who have a political origin and who seek to generate disaffection with the government institutions or damage the image of the main politicians, generally by discrediting them before the public opinion.

The remaining 20% is distributed as follows: 7% is of the hooligan 2.0 type; another 7% pursue geostrategic interests, 7% are of ideological origin (with special incidence in xenophobia and aporophobia); and 2% seek to perpetrate fraud or spread a virus (2%).
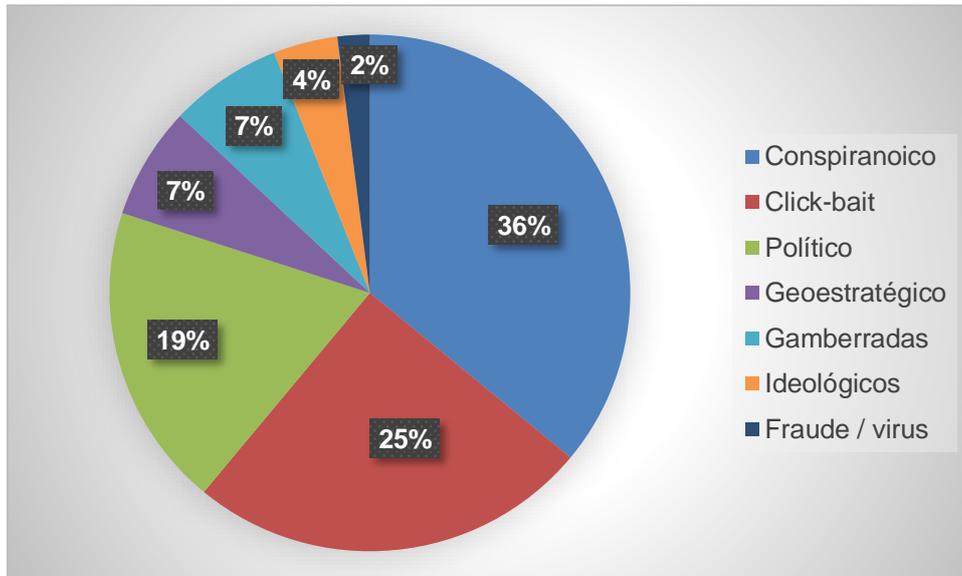
Graph 2: Origin of the Fake News published around COVID-19.
Source: Self-made

Among the audio messages spread through WhatsApp, the most abundant are those of conspiranoid origin (46%), followed by the viral ones that pursue click-bait (23%), and political (14%). The rest are distributed as follows: ideological (6%), hooligans 2.0 (8%), and fraud (3%).

Similarly, conspiranoid-type hoaxes are the most abundant in video format (49%), followed by click-bait (26%) and those of ideological origin (11%). To a lesser extent, 7%, we find those of political origin, hooligans 2.0 (6%), and those of geostrategic origin (1%).

4.1. Conspiranoids

The most common hoaxes distributed by conspiranoids are aimed at the denial of the pandemic (40%). A platform called '*Médicos por la verdad'*, created at the end of July 2020 and which has been spreading hoaxes about the coronavirus since the disease began, has fundamentally contributed to this, to the point that the General Council of Official Doctors Associations of Spain has started the procedures for opening an information file against this group of deniers to assess whether they violate the Code of Ethics.

The second group of hoaxes of important consideration, also with a conspiranoid origin, is the one that ensures that behind the pandemic the hidden interests of the "new world order" are hidden (36%). To this group belong the messages that maintain that 5G is the cause of the spread of the virus or that the use of masks causes hypoxia, a theory that serves as the basis for the "anti-mask" movements that have emerged all over the planet and who do not hesitate to confront the authorities and skip medical recommendations because they believe that everything is the result of a conspiracy aimed at restricting citizens' rights.

The influence of this type of false information on society is such that in the United States there are surveys that indicate that "around 25% of its citizens believe that, 'definitely' or 'probably', the coronavirus outbreak was intentionally planned by powerful people" (Ocaña, 2020).

Finally, there are news items that aim to discredit the functioning of vaccines (24%), attributing adverse effects that have nothing to do with reality. Among these, especially the videos in which some doctors assure that those vaccinated against the coronavirus will be able to infect healthy people and future vaccines will cause the sterility of those who inoculate them, stand out. Also, to fuel the controversy and social alarm around vaccines, audios have been circulated in which it is ensured that in schools they are vaccinating children without the permission of their parents.

4.2. Click-bait

One in four disseminated hoaxes intends to benefit from the click-bait phenomenon, which seeks to attract attention with titles that invite clicking to get visits through the use of extra-journalistic values and that make it increasingly difficult to discern their verisimilitude.

In general, this type of news is characterized by the insertion of flashy and not very rigorous headlines that pretend to function as "hooks", being able to distort reality and increase misinformation, a practice that is very close to manipulation and can be considered collateral damage in the war to gain a larger audience.

Within this group, it is observed that the vast majority (58%) is made up of news that, without having a scientific basis, claim to have found the key to not getting infected and that they bet on such dangerous practices as drinking urine or consuming cocaine or ketamine. The lack of treatment for COVID-19 has multiplied the business of pseudo-therapists and pseudoscientists who claim that bleach, toothpaste, methanol, or silver are the remedy to end the virus. This type of false information is extremely dangerous and its rapid spread among the population has led the World Health Organization to open a *TikTok* account to provide reliable and appropriate public health advice.

On the other hand, 33% of this viral information seeks to generate fear among the population, since this is one of the most powerful elements within the processes of production of subjectivities that seek homogenization and the disappearance of differences, even at the cost of the liquidation of the different (Useche, 2008). Emotion always beats reason and this is the basis on which the virality of this type of message is based, in fact, according to Ricou (2020), information that generates fear is more likely to be shared, even if it is a lie than truthful news. This is the case of media headlines that are manipulated to release misleading news about unprecedented coronavirus waves, the false confirmed ones in various locations in Spain, or the fictitious outbreaks that have forced the closure of schools and institutes.

Finally, 9% spread inaccuracies or falsehoods in the TikTok video line, or curious news about animals that, taking advantage of the confinement, go down to the cities. This is the case of the swans that swim in the Venice canals, or the deer on the beach of Matalascañas, in Huelva, which was even given as valid news in the "El Tiempo"

section of the *Telemadrid* newsletter (Mayor, 2020). Others even suggest that the Russian president gave the order to release 500 lions to force the population to respect the confinement (See Figure 1).

Figure 1: Fake News about the release of lions in Russia
Source: *Reuters*

4.3. Political

An important point of origin for hoaxes (19%) are opinion leaders who may or may not represent the interests of political parties or companies. In fact, according to López-Borrull (2020b), the parties, rather than directly launching a hoax, sow doubt about an issue with the aim that their followers take it for granted on social networks.

Throughout this research, 162 fake news stories whose origin is related to the various political parties that make up the national, regional, and local spectrum have been detected and analyzed. On occasions, these hoaxes have been brought to the attention of the Public Prosecutor's Office, such is the case of the Cabildo de Fuerteventura that has denounced hoaxes on a website linked to counselor Domingo Pérez (PP) for publishing false information in which he maintains that "the Government is studying to re-decree the state of alarm in Fuerteventura if boats continue to arrive with immigrants with Covid-19" (Diario de Fuerteventura, 2020).

A recent study on the infodemic in 6 European countries (Nielsen et al., 2020) reveals that politicians, 43%, and the Government, 34%, are, in the opinion of Spaniards, the main sources of false information. These social perceptions come from how different political formations have used COVID-19 to obtain electoral revenue, trying to polarize audiences through what can be called a partisan bias.

Thus, *Partido Popular* accused the Government of not contacting Spanish companies in charge of the distribution and manufacture of rapid virus antigen detection tests. The party's general secretary himself, Teodoro García Egea, insisted on the issue with several tweets in this regard and Ana Rosa Quintana echoed the news on her show, being forced to deny the information 24 hours later (See Figure 2).

Figure 2: Fake News about the rejection of the test purchase
Source: @Ander_Gil, socialist spokesperson in the Spanish Senate

The Socialist Party also denounced in the Andalusian Parliament (See Figure 3) the alleged shortage of personal protective equipment (PPE) in the Puerta del Mar hospital in Cádiz, information that had been viralized through WhatsApp with invented data and that the National Police itself, in a statement sent to the media, had to deny and remind citizens "not to contribute to viralizing alarmist hoaxes."

Figure 3: Jiménez Barrios (PSOE) spreading a hoax in Parliament
Source: *Horasur.com*

For their part, Vox has become a loudspeaker of uncertain news, such as the one that announced that the Higher Center for Scientific Research warned the Government from the outset of the severity of the coronavirus, or those that assured that *okupas* could enroll in the municipal register to be able to access COVID-19 aid, including the minimum income. The information was also initially shared by leaders of *Ciudadanos* such as Toni Cantó who, after ascertaining that it was false, decided to erase all traces.

Associations and movements organized in the heat of political ideologies are at the origin of much false information. Two especially prolific groups in these matters are "*España viva*" and "*Resistencia Democrática*". The first is defined as a support group for Vox and, the second, as a "transversal movement" that is not "linked to any political party", and in which "all ideologies" fit, except for "communism", which in their opinion the coalition Executive represents, who try to lead Spain towards "a dictatorship of the Chavista style" (Sánchez Castrillo, 2020).

The hoaxes created by this type of platform about COVID-19 have jeopardized cybersecurity based on disinformation campaigns or hoaxes that could generate "disaffection of government institutions." The most notorious case is that of a chain of messages that accuses the Government of the genocide of the elderly, stating that residences are forced to lock up elderly people infected with coronavirus in their rooms and prevent them from going to the hospital to be treated (See Figure 4).

Figure 4: Hoax on the genocide of the elderly decreed by the Government
Source: *Twitter*

This type of false news is also aimed at undermining the public image of certain politicians, including the Prime Minister, Pedro Sánchez, and the director of the Center for the Coordination of Health Alerts and Emergencies, Fernando Simón.

Pedro Sánchez has become the protagonist of 14 hoaxes that accuse him, among other issues, of having traveled to Doñana with his family during confinement, having an exclusive floor at the Puerta del Hierro hospital for his family, or having been charged by the Hague Tribunal for genocide in connection with COVID-19. On his part, Fernando Simón has been the object of montages and fake news up to 7 times, to discredit his work at the forefront of the pandemic. Among others, he is credited with having "recognized that deaths from other causes are included as if they were from COVID-19" or having held a meeting with the son of George Soros when in reality, it was with Sergio Fajardo, mayor of Medellín.

4.4. Ideological

Ideological motivation becomes the point of origin of numerous hoaxes that fundamentally seek to stigmatize sectors of society such as immigrants and link them with terrorism or, more recently, with the coronavirus. The fear of contagion, the lack of health resources, and the economic crisis derived from the restrictions imposed by COVID-19 have created an environment conducive to the increase in xenophobia and aporophobia, a phenomenon that is not new because, as published by Alexandre White (2020) in *The Lancet*, it was already present in the epidemics of the 19th century, when non-Europeans were blamed for spreading the disease.

In this sense, White recalls the quarantines to which Indians and Asians were subjected before entering Ceylon faced with the danger that cholera or the plague would represent an economic setback for the flourishing tea market, or how the International Sanitary Conventions from 1892 to 1938, perceived Muslims who traveled to Europe after having made the pilgrimage to Mecca as a potential threat in spreading disease and were, therefore, subjected to harsh quarantines.

Fear of the foreigner and the poor is present in 7% of the misinformation that circulates about the coronavirus. Most of these pieces revolve around the immigrant as a cause of the spread of the pandemic, with WhatsApp audios in which the arrival of infected foreigners in Spain is manifested without the authorities doing anything about it being usual. This is the case of the audios that relate how 33 COVID-19 positive immigrants arrived in Fuerteventura and that nine of them escaped from confinement, which motivated the Cabildo to debate whether or not to confine the island. Given the rapid viralization of the message, narrated in the first person, the official institution had to step out and deny the information.

The list of hoaxes that blame immigrants for the problems and that expand xenophobia, racism, and aporophobia is long and varied, from supposed regulatory procedures announced by the Government, the perception of the Minimum Vital income for those arriving in boats and their denial to the Spanish unemployed, up to 500 boats in Algeria about to set sail for Spain with infected people and which, in reality, were fishing boats (See Figure 5).

Figure 5: Hoax about boats about to leave for Spain
Source: *Maldita.es*

4.5. Hooligans 2.0

If in the 90s the so-called "hooligans" took advantage of ETA terrorism to call official and educational institutions to give warnings of bombs and destabilize the system, in the digital age, the new tools of social communication have put at their fingertips a new way of committing acts of incivility. In general, these are jokes that are intended to create confusion, and, for this, they do not hesitate to refer to the media or show the logo of institutions that are credible to promote the viralization of their messages.

Although this type of news often offers contradictory and illogical data, at a time when uncertainty marks the day to day, the need for updated information leads citizens to give fuel to news that generates confusion. Thus, for example, we find the false letters that announced the suspension of classes in Castilla y León (See Figure 6) and Andalusia, the delay in the Selectivity tests in August, or the use of Zoom connections to distribute malware and capture personal data.

Figure 6: False statement of suspension of classes in Castilla y León
Source: *EFE Verifica*

This type of hooliganism accounts for 7% of the fake news detected around COVID-19 and, compared to its alleged innocuousness, 2% is aimed at generating obvious economic damage to companies and businesses. Thus, we find from the supposed closure of premises and bars in Badajoz due to a rebound in coronavirus cases, to others in which an establishment is pointed directly, as in the case of the WhatsApp message that spread that one of the cooks of the Bunker Beach Club from Sotogrande, in Cádiz, had tested positive. Other affected businesses have been the Viveros hairdresser in Galicia, the Lidl in the Los Llanos neighborhood, in Gijón, and even the Cardiology Service of the Virgen Macarena Hospital in Seville.

4.6. Geostrategic

Disinformation campaigns with a clear geostrategic purpose represent 7% of all fake news circulating about COVID-19. Their origin can be found in intelligence services and cyberspace armies, according to Yolanda Quintana, a security expert (Gonzalo,

2020), and they have the clear objective of creating information intoxication actions to discredit other countries.

The pandemic has fully entered into "the propaganda and disinformation strategies of China, Russia, the United States, and the European Union" (Rouco, 2020, p.19). The great victim has been China, the object of stigmatization, to the point that President Trump himself has not hesitated to speak of the "Chinese virus."

Among the many hoaxes that circulate about the origin of the pandemic, we find those that affirm that the coronavirus was produced by eating bat soup (See Figure 7) or that the snakes that eat these bats become carriers of the virus. Others directly point to the fact that the purchase of products from affected countries can infect, hoaxes that cause the destabilization of the economy and harm certain countries.

Figure 7: Fake Twitter video about bat soup in Wuhan
Source: *EFE Verifica*

However, misinformation about COVID-19 has also become a throwing weapon between the Sino-Russian bloc and the United States. In fact, Russia has created numerous hoaxes and conspiracy theories, among which we can highlight those that point to Bill Gates and George Soros as creators of COVID-19 (See Figure 8), that the main source of expansion of the coronavirus was a US laboratory in Armenia, that the European Union abandoned Italy to its fate and that only Russia and China helped it during the first wave of the pandemic; or that the sole cause of the virus is gay marriage.
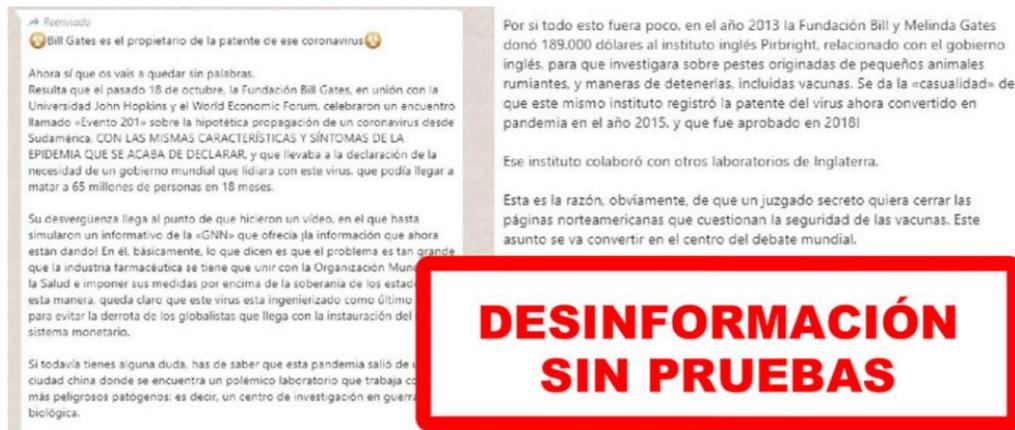
Figure 8: WhatsApp message stating that Bill Gates is the owner of the COVID-19 patent
Source: *Maldita.es*

4.7. Fraud or virus

Hoaxes that pursue fraud or the transmission of a computer virus constitute 2% of the total. Throughout this research, 2 fake news items spread by email have been detected, the aim of which was to infect electronic devices. These malware attacks supposedly came from the Ministry of Health and announced the perimeter restrictions imposed by the Government and the protocols to follow to fight COVID-19 (See Figure 9).

Figure 9: Malware Distributor Mail
Source: *Maldita.es*

The rest, up to 17, respond to the technique of pishing, a method used by cybercriminals to obtain personal data such as passwords, credit cards, and bank account numbers, among others. To obtain these data, the news items, mainly disseminated by WhatsApp, offer a link to obtain "bonuses for the whole family" (See Figure 10), discounts of up to 25% for Iberdrola customers, the reimbursement of 345

euros from Social Security, and even the donation of sneakers by Nike and Adidas, among others.
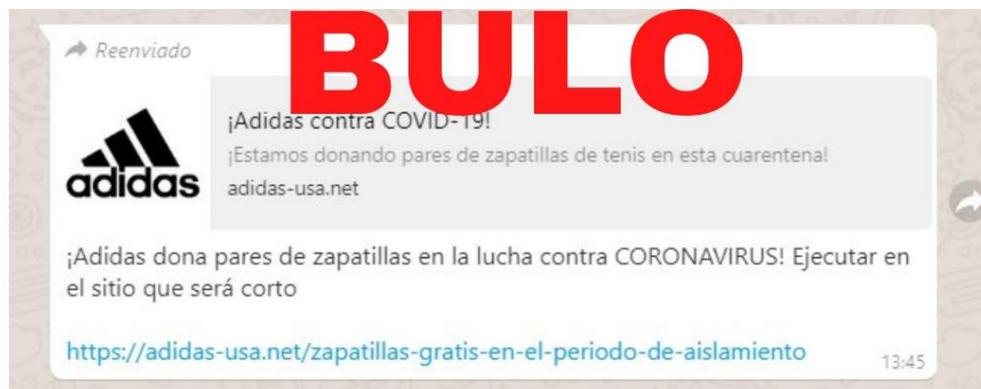
Figure 10: WhatsApp message announcing the donation of sneakers by Adidas
Source: *Maldita.es*

5. CONCLUSIONS

The uncertainty and fear due to the coronavirus pandemic that has plagued the world for more than a year, have caused a barrage of false information that offers varied data and opinions about the disease and its repercussions. Instant messaging apps together with social networks have become the main means of disseminating this news, which, based on the veracity that is usually given to everything received by trusted nodes, have generated an unprecedented virality of the phenomenon.

In the empirical field, the present study confirms what has already been pointed out by Salaverría et al. (2020) who highlight that instant messaging apps, and especially WhatsApp, are the chosen platforms to disseminate false information in greater quantity and reach. As they are designed to preserve the privacy of communications, they make it impossible to monitor content, "hence they are known as a dark social environment" (Cortés and Isaza, 2017, p.11). Most of these messages endorse conspiracy theories or seek to capture attention with alarmist headlines that awaken the emotional side of recipients who, in times of exception, have the lowest fear threshold and are more susceptible to sharing threatening messages.

They are followed in importance by social networks, their role in the dissemination of unreliable information (close to 40%) is motivated by the need that citizens experience to feel part of the information flow, to be part of what is called "media noise", and be bearers of headlines. To combat this indiscriminate dissemination of information, the main social networks have launched projects such as *Facebook Journalism*, which monitors the effect of fake news to combat it through filters, or *Birdwatch*, from *Twitter*, which allows identifying misleading information in tweets and writing notes that provide informative context.

These projects, together with media literacy initiatives, are emerging as the most effective method to combat lies and misinformation in an environment marked by multi-channel consumption. These pedagogical campaigns are mainly oriented towards young people, not to tell them where to consume information, but to make them

appreciate what good information is. It is about educating based on an attitude of help and respect and promoting critical reasoning based on real verified facts, to break with ideological polarization.

As in previous research (Gutiérrez-Coba et al., 2020; Brenen et al., 2020), the format of most of the transmitted hoaxes was text (85%), given the "ease of manipulating and distributing it through social networks, messaging apps, or emails" (Gutiérrez-Coba et al., 2020, p.258). It is also observed that to make the information more credible and appeal to the feelings of the recipients, 15% had an audio or audiovisual format. On the contrary, the use of *deepfakes* has not been detected, an artificial intelligence technique that, using manipulation, allows the editing of false videos of apparently real people to viralize the message.

The study of the origin of the hoaxes around the coronavirus has shown that, although wars are now being fought in a very different scenario such as the Internet, their origin continues to be, as Thucydides pointed out in his *History of the Peloponnesian War*, fear and interest. Precisely, fear understood as the feeling of mistrust that leads to believe that something negative is going to happen is the basis of the hoaxes of conspiracy origin (36%) that are articulated because there is a truth that nobody wants to be known. The more interest this type of information arouses, the more easily it will be believed and disseminated and for this, it is essential to include data that do real damage to something as concrete and ephemeral as health can be.

In the same way, the ideological, economic, and political interest constitutes the second great reason present in the origin of the hoaxes. Economic interest (27%), either by fraud or by the revenue obtained from the virality of news in which getting readers at all costs plays to the detriment of the journalistic quality of the texts; ideological interest (18%), be it geostrategic or social (xenophobia, aporophobia…), even at the cost of jeopardizing the stability of diplomatic relations between countries; and political interest (19%), to revile the opposing point of view and, incidentally, discredit it before public opinion, without taking into account that the well-being of citizens and their right to truthful information must prevail, especially in exceptional pandemic situations.

Faced with this infodemic panorama, the pedagogy of data verification is more important than ever and, in this sense, the work carried out by the main social networks to eliminate any type of non-verified information from their boards, as well as the work of the State Security Forces, mainly, the National Police and the Civil Guard, in charge of disproving hoaxes through their digital platforms, are essential. However, Journalism is the true guardian of informational veracity, either through the responsible and ideologically neutral exercise of the media or, a posteriori, thanks to the journalistic work carried out by fact-checking platforms, in charge of quickly denying false information, always with scrupulous respect for the right to freedom of expression and criticism and to avoid the social stress generated by these hoaxes.

The data verification platforms are precisely the main methodological limitation of this study since they carry out their classification and study work based on subjective criteria of relevance and requests from the users themselves. To overcome this limitation, also present in Salaverría et al. (2020), it would be advisable what is proposed by these authors, a study based on the detection and analysis of news

published on social networks and mass dissemination platforms, using big data methodologies.

6. REFERENCES

Alcalde, S. (2020, 29 de abril). Bulos de animales durante el confinamiento por el coronavirus. *National Geographic.* https://bit.ly/3x8wqwn

Alonso-González, M. (2019). Fake News: desinformación en la era de la sociedad de la información. *Ámbitos. Revista Internacional de comunicación*, 45, 29-52. http://doi.org/10.12795/Ambitos.2019.i45.03

Blanco, P. (2020, 23 de marzo). ¿A quién beneficia la avalancha de bulos sobre el coronavirus? *El País.* https://bit.ly/34W774v

Brennen, J. S., Simon, F. M., Howard, P. N., & Nielsen, R. K. (2020). Types, Sources, and Claims of COVID-19 Misinformation. *Reuters Institute for the Study of Journalism.* https://bit.ly/3v07A00

Casero-Ripollés, A. (2020). Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. *Profesional de la información*, 29 (2). http://doi.org./10.3145/epi.2020.mar.23

Consejo de la Unión Europea (2018). *Plan de Acción contra la Desinformación*. https://bit.ly/2T4e2py

Cortés, C. e Isaza, L. (2017). *Noticias falsas en Internet: La estrategia para combatir la desinformación.* Universidad de Palermo. https://www.palermo.edu/cele/pdf/FakeNews.pdf

Diario de Fuerteventura (23 de junio de 2020). El Cabildo trasladará a Fiscalía "bulos" difundidos por una web vinculada al consejero Domingo Pérez (PP). *Diario de Fuerteventura.* https://cutt.ly/enkYBUl

EFE (2020, 5 de agosto). *Creadores de bulos, ¿Qué hacen y cómo lo hacen?* https://bit.ly/3g3gjZX

Facebook (2020, 24 de junio). *Invertir en iniciativas de alfabetización mediática en los EE.UU.* https://www.facebook.com/journalismproject/media-literacy-initiatives

Gallego, C. (2020). *Fake News* en tiempos de COVID. La invasión de la desinformación. EAE Business School. http://marketing.eae.es/prensa/SRC_FakeNews.pdf

Gonzalo, M. (2020, 10 de agosto). Ciberataques en tiempos de pandemia. *Newtral.* https://www.newtral.es/ciberataques-pandemia/20201008/

Grau, A. (2008, 10 de octubre). Internet cambia la forma de leer… ¿y de pensar? *El País.* https://bit.ly/3ghPW2p

Gutiérrez-Coba, L. M., Coba-Gutiérrez, P. y Gómez-Díaz, J. A. (2020). Noticias falsas y desinformación sobre el Covid-19: análisis comparativo de seis países iberoamericanos. *Revista Latina de Comunicación Social,* 78, 237-264. https://doi.org/10.4185/RLCS-2020-1476

Instituto Nacional de Estadística (2020, 16 de noviembre). *Encuesta sobre Equipamiento y Uso de Tecnologías de Información y Comunicación en los Hogares.* https:// www.ine.es/prensa/tich_2020.pdf

Kapferer, J. N. (1988). *Boatos. O meio de comunicação maisvelho do mundo.* Publicaciones Europa-América.

Keane, J. (2013). *Democracy and media decadence.* Cambridge University Press.

López-Borrull, A., Vives-Gràcia, J., & Badell, J. (2018). Fake news, ¿amenaza u oportunidad para los profesionales de la información y la documentación? *El profesional de la información,* *27*(6), 1346-1356. https://doi.org/10.3145/epi.2018.nov.17

López-Borrull, A. (2020a). *Bulos científicos, de la tierra plana al coronavirus, el impacto negativo que las mentiras.* Oberon

López-Borrull, A. (2020b). Fake News y coronavirus: la información como derecho y necesidad. *Revista de los Estudios de Ciencias de la Información y de la Comunicación*, 98.

López-Rico, C., González-Esteban, J. L. y Hernández-Martínez, A. (2020). Polarización y confianza en los medios españoles durante el Covid-19. Identificación de perfiles de audiencia. *Revista Española de Comunicación en Salud* Suplemento 1, 77-89. https://doi.org/10.20318/recs.2020.5439

Lázaro-Rodríguez, P. y Herrera-Viedma, E. (2020). Noticias sobre Covid-19 y 2019-CoV en medios de comunicación de España: el papel de los medios digitales en tiempos de confinamiento. *Profesional de la información*, 29 (3). https://doi.org/10.3145/epi.2020.may.02

Mantzarlis, A. (2018). Fact-checking 10 in C. Ireton & J. Posetti (eds.), *Journalism, Fake News & disinformation: Handbook for journalism education and training* (pp. 85-100). Unesco.

Nielsen, R., Fletcher, R., Brennen, J., & Howard, P. (2020). *Navegando la "infodemia": así consume y califica las noticias y la información sobre el coronavirus la gente en seis países.* University of Oxford.

Ocaña, J. (28 de julio de 2020). Conspiraciones en tiempos de virus. *El Heraldo.* https://bit.ly/2Rvb3WK

Orden PCM/1030/2020, de 30 de octubre, por la que se publica el Procedimiento de actuación contra la desinformación aprobado por el Consejo de Seguridad Nacional, 292, de 5 de noviembre de 2020, 96673-96680. https://www.boe.es/eli/es/o/2020/10/30/pcm1030

Pozo-Montes, Y. y León-Manovela, M. (2020). Plataformas fact-checking: las *Fake News* desmentidas por Newtral en la crisis del coronavirus en España. *Revista Española de Comunicación en Salud*, 1,103-116. https://doi.org/10.20318/recs.2020.5446

Ricou, J. (2020, 14 de febrero). El contagio imparable del miedo: cuando la emoción gana a la razón. *La Vanguardia*. https://bit.ly/3g2tB9c

Rouco, F. (2020). Las estrategias de propaganda mutan durante la pandemia. *Telos*, 114,18-21.

Salaverría, R., Buslón, N., López-Pan, F., León, B., López-Goñi, I., y Erviti, M. C. (2020). Desinformación en tiempos de pandemia: Tipología de los bulos sobre la Covid-19. *El Profesional de la Información*, *29*(3), 1-15. https://doi.org/10.3145/epi.2020.may.15

Sánchez-Castrillo, A. (2020, 27 de mayo). De los Ultracatólicos de Hazte Oír a Resistencia Democrática: ¿Quién es quién tras las protestas contra el gobierno? *InfoLibre*. https://bit.ly/3fHjjMI

Stencel, M. & Luther, J. (2020, 13 de octubre). *Fact-checking count tops 300 for the first time*. Duke Reporter's Lab. https://bit.ly/2TPPukA

Sunstain, C. (2009). *On rumours. How falsehoods spread, Why we believe them, What can be done*. Penguin.

Tucídides (2013). *Historia de la Guerra del Peloponeso: Traducción, introducción y notas de Francisco Rodríguez Adrados*. Amazon Kindle.

Useche (2008). Miedo, seguridad y resistencias: el miedo como articulación política de la negatividad. *Polis, Revista Latinoamericana*, 19, 1-27. https://journals.openedition.org/polis/3893

We are social (2021, 27 de enero). *Digital 2021, Global Overview Report.* https://wearesocial.com/digital-2021

White, A. (2020, 27 de marzo). Historical linkages: epidemic threat, economic risk, and xenophobia. *The Lancet*. https://bit.ly/3wPiKGi

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