social sciences

Journalism and Politics
New Influences and Dynamics in the Social Media Era

Edited by
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Printed Edition of the Special Issue Published in *Social Sciences*

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This is a reprint of articles from the Special Issue published online in the open access journal *Social Sciences* (ISSN 2076-0760) (available at: www.mdpi.com/journal/socsci/special_issues/ journalism_politics).

For citation purposes, cite each article independently as indicated on the article page online and as indicated below:

LastName, A.A.; LastName, B.B.; LastName, C.C. Article Title. *Journal Name* **Year**, *Volume Number*, Page Range.

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The Great Change: Impact of Social Media on the Relationship between Journalism and Politics—Introduction to the Special Issue

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1. Introduction

Digital media have become an indispensable element of a growing number of human practices that depend on these platforms to a great extent. In consequence, they have been configured as central infrastructures in our lives with the ability to shape society and politics (Couldry and Hepp 2017). These technologies have changed how contemporary politics are performed (Jungherr et al. 2020). Politics are now deeply shaped by the use of digital media. This fact, along with other phenomena of social change, such as the fragmentation of the public, the deterioration of political loyalties or the crisis of the legitimacy of democracy, and the increase in extremism, among others, are causing great transformations in politics (Schroeder 2018).

For this reason, research is needed to analyze this structural change, which is generating both new opportunities and new tensions as well as causing a multifaceted and ambivalent impact. The objective of this Special Issue is to examine the processes transforming the relationship between journalism and politics in this new digital media environment. Likewise, we are also interested in critically exploring the consequences and effects of these phenomena on political communication, democracy, and society.

2. Journalism and Politics in the Era of Social Media

The relationship between journalism and politics has always played a central role in democratic societies (Albæk et al. 2014). It is essential for setting the agenda, defining social frames of problems and issues related to the public interest, promoting public debates, as well as shaping public opinion (McCombs and Valenzuela 2020; Schudson 2020). The emergence of social media has led to many changes in the communication environment and relationship dynamics. Additionally, the power distribution between journalism and politics has changed. Futhermore, important changes have been detected in the demand–supply chain of political information (Jungherr et al. 2020).

This new environment has boosted the development of a new network logic and a hybrid system where old and new media constantly interrelate through platforms that play a central role in the current social dynamics (Chadwick 2017). The processes of production, distribution, and consumption of political information were transformed by the rise of digital media (Casero-Ripollés 2018). Several new phenomena changed the game rules between journalism and politics. These include the growing number of sources of information that increased the competition and decreased journalists' monopoly over the news. They also include the new forms of political news as well as the prevalence of fake news and sophisticated propaganda and disinformation strategies (Waisbord 2018). Moreover, there has also been a transformation in the distribution of power within the communicative system and the exercise of social influence by the media, journalists, and political actors (Casero-Ripollés 2021).

Today, we are immersed in a time characterized by the emergence of disrupted public spheres in political communication (Bennett and Pfetsch 2018). This supposes the introduction of large-scale changes that alter what we have taken for granted. It is necessary to rethink the interactions between journalism and politics in a context where digital media generate new conditions and situations. We operate in a highly complex environment dominated by a more fluid and transitory hybrid system (Chadwick 2017). The old paradigms and conceptions, coming from the era of mass communication (Chaffee and Metzger 2001), must be reviewed in light of this changing and dynamic scenario. Researchers must face new challenges to make contributions that help us understand how the links between journalism, communication, and politics change. All this is necessary without forgetting their respective democratic consequences. Only in this way will we better understand the society where we live and will live in the future.

3. Special Issue Contributions

This Special Issue includes two reviews and ten research articles. In the first review, Baptista and Gradim (2020) address the topic of fake news consumption. Disinformation is one of the main problems journalism and politics are facing today. Social media have introduced radical changes in the way citizens access and consume news. In particular, young people are increasingly using digital platforms to obtain information. In this environment, the circulation of fake news proliferates. This can have important consequences for democratic health, such as political destabilization, the rise of populism and extremism, or the increase in hate speech, among others. Therefore, it is essential to understand why people consume, believe, and share fake news. Considering a sample of 52 articles published in the last 5 years, the researchers identify the main factors contributing to fake news' dissemination. To attract the readers' attention, fake news distributors use all possible resources, such as the format of headlines; the selection of certain images; and simple, emotional, and persuasive language. Furthermore, these researchers claim that right-wing people, the elderly, and less-educated people are more likely to believe and spread fake news. However, their analysis acknowledges that what motivates the consumption and sharing of fake news continues to merit further investigation.

Framing is one of the main theoretical approaches to explore the interrelation between journalism and politics. It affects the construction of the informational message and its impact on public debate. In the second review, López-Rabadán (2022) develops an analysis of the previous literature on this theory based on a sample of 78 articles published in the last decade in the most relevant journals of Web of Science and Scopus. Thus, he identifies its main points, strengths, and limitations. In this respect, he detects advances, such as, on the one hand, the construction of certain theoretical consensus and a better definition of primary concepts, and on the other, a diversification of the research agenda. In particular, he examines how social media generates a new reorientation of this perspective. The rise of digital media means that, as of 2015, a new stage opens in framing studies that reorient their research agenda towards the incorporation of digital platforms as an object of study, the commitment to the analysis of the effects, and the incorporation of new methodological approaches with a more comparative and international perspective. This supposes the growth of experimental studies and using large samples based on big data. Finally, this article raises the main challenges of framing for the immediate future established in the following points: opting for a comprehensive approach, articulating balanced methodological designs, incorporating visual aspects into the study, and considering the incidence of the current hybrid media system while analyzing not only the content of the messages but also their social consequences. Therefore, a complete diagnosis of a fundamental theory trend in the relationship between journalism and politics is presented, now adapted to the digital environment.

The ten remaining research articles can be grouped into three large blocks: the core values of political journalism in the digital age, the new communication formats and

technological platforms for political actors, and the impact of the far-right in communication and journalism.

The first block analyses the problems related to the core values of journalism, such as transparency, verification, and credibility. The latter is a pivotal value for journalism and democracy. Its importance increases given the current scenario characterized by the dissemination of fake news and the loss of centrality of traditional media outlets. Besalú and Pont-Sorribes (2021) dedicate their article to analyzing the levels of credibility that Spanish citizens assign to political journalism in the online environment. To achieve this goal, they used a survey (*n* = 1669). Their findings demonstrate that news items shown in a traditional media format, especially digital television, were given more credibility than news presented in a social media format. In addition, they reveal that citizens showed a more cautious attitude towards social media as a source of news. However, the results indicate that the credibility levels of the news on digital platforms are moderately high. These data help to understand the progress of disinformation in the digital environment. In addition, they offer relevant evidence to learn the public's attitudes towards political journalism since perceptions about credibility predict exposure to news and citizen engagement with journalism.

Transparency is one of the core values to strengthen the public service dimension of journalism and its social contribution. Furthermore, it is a way to recover its legitimacy before the citizenry. Rivera Otero et al. (2021) address this relevant topic to analyze the transparency policies developed by the main European public broadcasters from nine countries. In this sense, they study the values traditionally associated with transparency, its transformation in the digital environment, and its presence on the websites of these television channels. Through a group of experts, they identify 12 new indicators on transparency and accountability in the public service media in the digital context. Their findings show an uneven commitment to transparency with a reduced presence of these new indicators in the media examined. In addition, they demonstrate the low institutionalization of transparency policies in the analyzed websites. Finally, they found that the level of transparency is determined by the relationship model between the political system and the media system. Thus, this research diagnoses the achievements and pending challenges concerning this crucial value for journalism in the digital context.

Another of the core values of journalism is the verification of information. This issue is currently subject to great tension due to the increase in information disorders in the digital environment. For this reason, Llorca-Asensi et al. (2021) investigate how disinformation is produced and articulated concerning the Catalan independence process. Combining social science methods with artificial intelligence and text mining found a widespread presence of disinformation on Twitter around this important political topic. In addition, their findings reveal a high presence of negative emotions, such as contempt, hatred, anger, fear, and extensive use of irony. This fosters social polarization and the creation of two antagonistic factions based on the distinction between them and us. Thus, the "right of self-determination" is used as a source of disinformation to enhance political conflict. Therefore, the researchers demonstrate that disinformation creates confusion in public debate, generalizing "information pollution".

The second block focuses on the new communication formats and the technological platforms for political actors. One of them is the use of negativity. Attacks on political rivals during electoral campaigns have been a traditional element of political communication. However, we still know little about how this phenomenon works in social media. Marcos-García et al. (2021) focus their research on learning the use of criticism on Facebook by political actors and citizens' reactions. They developed a content analysis of 6 variables and 20 categories about 600 Facebook posts from the main parties during the 2016 Spanish elections, finding that 23% of these posts have negative content. This demonstrates an emerging use of criticism in the digital communication strategy of political actors. The opposition parties and their candidates usually employ this formula to attack the party and the leader of the government. Concerning the typology of criticism, parties tend to

prioritize attacks on the professional role of their rivals, while candidates focus on the values and ideology of their opponents. On the other hand, citizens react with negativity in three ways. First, those messages with specific types of criticism obtain the highest number of comments and shares. Second, those posts without criticism reach a higher average of positive or neutral reactions. Finally, the messages containing criticism receive the most negative reactions on average.

Another important format in the relationship between politics and communication in the digital environment is online advertising. In recent years, Facebook-sponsored content has become an indispensable tool for implementing political campaign strategies. The possibility of reaching target audiences chosen based on profiles and interests, as well as the fact of precisely calculating the cost of ads, makes this advertising model extremely appealing for political actors. Calvo et al. (2021) perform an analysis of the strategies implemented by six national parties during the campaigns running up to the two general elections held in Spain in 2019, on a corpus of 14,684 ads downloaded directly from the Facebook Ad Library. Their findings reveal an unequal use of this resource from the view of the economic investment made by the parties. In addition, they discover that the communicative effort consolidates on the last days of the campaign, publishing most of the ads then. In the first campaign, party promotion predominates, while in the second, it focuses on economic and social issues, especially employment. These data provide relevant information to learn the new advertising strategies of political actors in the social media environment.

Together with these formats, the digital environment offers new tools for the communicative activity of politicians. One of the most important is mobile devices. These offer new forms of relationship with citizens that can generate new forms of political participation. Quevedo-Redondo et al. (2021) explore the characteristics of the mobile device app use in political discourse and the utility of these tools to enhance civic engagement. From a theoretical approach based on politainment, pop politics, and ludification, they apply a content analysis, including user comments, of 233 apps of 45 politicians from 37 countries. The results suggest that mobile devices, through apps, contribute to playful forms of politics linked to gamification and spectacularization. In addition, the study of user comments shows the advance of polarization in this new communicative space.

Another element growing its importance in the digital scene is political bots. This technology, linked to astroturf, has a great ability to create artificial public opinion and turn non-existent or minority opinions into majority or dominant ones. Therefore, it can have detrimental effects on democracy. García-Orosa et al. (2021) analyzed the use of bots in the 2019 Spanish electoral campaign to design strategies for their identification, improving their automatic detection. Using a methodology based on hybrid intelligence and framing theory, they developed the first bot classifier in Spanish. In addition, they discovered that the bots used in Spain's election campaign seemed more geared towards the repetitive dissemination of specific messages than generating interactions or conversations. Thus, they are configured as a highly useful and appropriate tool for disseminating strategically designed frames. In this sense, the results indicate that the bots focused on problems in the game frames that distract users from the core message. Finally, the ability of the bots to draw people's attention to certain issues and create artificial opinions is confirmed.

The third block is devoted to studying the relationship between far-right politics and journalism and communication in the digital environment. In this context, freedom of expression and the fact that any user can place opinions into circulation have caused hate speech to spread faster and more widely on social media. This can not only deteriorate democratic coexistence but also lead to crimes. One of the social issues most affected by this phenomenon is immigration, which, without a doubt, is configured as one of the central themes of the public debate that takes place between journalists, political actors, and citizens. Particularly active in this dynamic are the far-right parties. Arcila Calderón et al. (2020) analyze this issue by using computational methods on Twitter. Specifically, they study the hate speech against immigrants linked to the Spanish far-right party Vox. Findings

show that the traits of this discourse were foul language, false or doubtful information, irony, distasteful expressions, humiliation or contempt, physical or psychological threats, and incitement of violence. In addition, they reveal that the four underlying topics of hate speech (control of illegal immigration, economic assistance for immigrants, consequences of illegal immigration, and Spain as an arrival point for African immigrants and Islamist terrorism) were similar to those in the discourse of Vox.

On the other hand, Pérez-Curiel et al. (2021) focus their attention on the worldwide influence of the rhetoric and speech of one of those significant political leaders promoting populism and extremism, the former president of the U.S., Donald Trump. To demonstrate his ability to influence other political leaders, they use a content analysis comparing tweets of various international political actors linked to the far-right, such as Mateo Salvini, Jair Bolsonaro, Santiago Abascal, and Marine Le Pen, and the front page of various newspapers, such as *The New York Times*, *O Globo*, *Le Monde*, *La Reppublica*, and *El País*. Their findings show that the discourse of fraud and conspiracy, characteristic of Trump, extends to the rest of the populist leaders studied. In addition, other significant elements are identified, such as the predominance of the appeal to emotions, misinformation, and confusion between opinion and information. This reveals the widespread use of propaganda mechanisms by far-right politicians on Twitter.

The last article in this block analyzes the impact of populist discourse on constructing reality during the COVID-19 pandemic. Through an analysis of the Twitter accounts of Donald Trump and Jair Bolsonaro for three months, Cervi et al. (2021) identify the central elements of their discursive strategies. Their conclusions indicate the predominance of the affective dimension of a conspiracy narrative and the protagonism of one of the main elements of the populist style of political communication: the distinction between the people, associated with positive and blessed values, and the elites, linked to negative and horrific matters. Despite the similarities, the two leaders discursively confronted the pandemic differently. While Trump conceived it as an enemy to be defeated, using warlike rhetoric, Bolsonaro presented it as a circumstance to overcome by downplaying it. This research offers elements to understand how far-right politicians launched populist narratives to confront COVID-19.

This set of twelve investigations offers an exciting vision of the changes that social media are introducing in journalism and politics. Many of these investigations formulate findings that indicate that the consequences of this process affect many more social spheres, causing substantial effects on citizenship and democracy. Thus, they portray a field of research of great centrality and strategic value to understand the transformations shaping the society in which we live.

Conflicts of Interest: The author declares no conflict of interest.

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Understanding Fake News Consumption: A Review

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Abstract: Combating the spread of fake news remains a difficult problem. For this reason, it is increasingly urgent to understand the phenomenon of fake news. This review aims to see why fake news is widely shared on social media and why some people believe it. The presentation of its structure (from the images chosen, the format of the titles and the language used in the text) can explain the reasons for going viral and what factors are associated with the belief in fake news. We show that fake news explores all possible aspects to attract the reader's attention, from the formation of the title to the language used throughout the body of the text. The proliferation and success of fake news are associated with its characteristics (more surreal, exaggerated, impressive, emotional, persuasive, clickbait, shocking images), which seem to be strategically thought out and exploited by the creators of fake news. This review shows that fake news continues to be widely shared and consumed because that is the main objective of its creators. Although some studies do not support these correlations, it appears that conservatives, right-wing people, the elderly and less educated people are more likely to believe and spread fake news.

Keywords: fake news; media consumption; social media; political ideology

1. Introduction

The way we access news articles and how we generally consume information online has changed. Social media has become the main vehicle for accessing news. Recent studies show that Facebook is one of the preferred sources of access to news, especially for the younger generation (Newman et al. 2019). However, Facebook and Twitter are responsible for the proliferation of fake news in the digital universe, increasing its exposure through the creation of segregated groups or recommendation algorithms (Zimmer et al. 2019a, 2019b). Our review intends to show why fake news is persuasive and which factors contribute to its spreadability. In addition to being important to understand the digital mechanisms that promote the proliferation of fake news, it is crucial to understand the role the structure (subject, title, body text) plays in its rapid dissemination and what motivates readers to consume and share it. In recent years, several studies have sought to develop effective solutions to combat online disinformation. If on the one hand, efforts are joined in the search for technological programs that allow the identification and detection of fake news (Burkhardt 2017b; Hardalov et al. 2016), on the other hand, others seek to raise the awareness of social media users and decrease the circulation of lies through a bet on the automation of fact-checking (Graves 2018; McClure 2017; Nguyen et al. 2019). The identification of malicious social bots (Davis et al. 2016; Shao et al. 2017; Ferrara 2017; Bessi and Ferrara 2016; Zimmer et al. 2019a) the detention of false content, through linguistic analyses that take into account the text structure (Hardalov et al. 2016; Shu et al. 2018a; Horne and Adali 2017), the frequency of words and the patterns used, are part of a set of solutions that seems to indicate a promising way forward. The development of recommendation algorithms, which promote the

diversity of content and combat confirmation bias, has been one of the major objectives of recent research (Mohseni and Ragan 2018; Lex et al. 2018; Hou et al. 2018). However, few studies have focused on the structural characteristics of fake news. This review seeks to be an addition to the literature, and its main objective is to analyze the phenomenon of fake news from the perspective of the consumer and to understand the characteristics of fake news articles that motivate their viral spread and which factors are associated with the selection and consumption of fake news in an online environment, in the search to define a profile for the true consumer of online disinformation.

This review focuses on consumer motivations (user/reader) and the structure/presentation of fake news to ascertain the apparent success and proliferation of this type of online disinformation. The factors associated with the dynamics of social media (recommendation algorithms, echo chambers, filter bubbles, malicious social bots) that also contribute a lot to the spread of fake news, were not addressed. With this review, we intend to understand the phenomenon of isolated fake news, in an independent approach to the characteristics of the digital universe to which it belongs. Our goals are to identify the main factors that influence fake news' belief and sharing and to identify differences and similarities between fake news and real news, in order to highlight the relevance of these characteristics for their dissemination. We know that some stories are more likely to go viral than others; that some headlines are more attractive, and that users tend to select information based on their party and ideological identity and on their social and psychological characteristics. Moreover, recent literature has shown that the concept of "fake news" has taken on different meanings, which has led several academics to try to formulate, without success, a univocal definition. The concept became increasingly more subjective and started to be applied in different scenarios and contexts, expanding its semantic field. In this review, we also seek to establish a working definition of fake news, pertinent and relevant to the contemporary debate in the field of journalism and political communication.

Based on a comprehensive literature review, our study aims to answer the following research questions:

- Q1: Does fake news spread quickly on social media because it explores aspects that are attractive to the user/reader?
- Q2: What are the main motivations for sharing fake news on social media?
- Q3: How do demographic and political aspects relate to the belief and dissemination of fake news?
- Q4: Who are fake news consumers?

Regarding research design, the article was organized in different sections, from a brief historical approach to fake news, to the discussion of the various aspects related to the consumption, spread and belief in fake news. In a nutshell, firstly, we identified some epistemological problems, existing in the literature, in relation to "fake news" terminology. We offer a working definition of fake news, focused on its current relevance for contemporary debate in the field of journalism and political communication, clarifying its semantic field. Subsequently, we establish a relationship between the structure of fake news and the user/reader preferences, in order to understand what motivates its consumption and dissemination on social networks. Finally, the article seeks to answer an imperative question: "Who are the consumers of fake news?", completing a thorough review of recent literature (2016–2020) to establish the main factors that influence belief in fake news.

2. Methods

The research documents analyzed in this work were extracted from the Google Scholar database. This review considered the studies published between the period 2016 and 2020. The research documents selected were those which, over these years, had the highest number of citations. Scientific articles were evaluated according to the document type, language and inclusion in the thematic category of our review article. Our corpus of the scientific articles considered for the investigation was obtained selecting the articles that evaluate the main factors influencing the belief in fake news. Based on this category (texts dealing with belief in fake news), from the collection of 419 results

surveyed, we selected 52 scientific articles based on the most consistent, recurring and studied factors by the academic community in relation to the consumption of fake news. Research queries (fake news share), (fake news consumption), (belief fake news) were used in June 2020 to collect the 419 academic documents with the term "fake news" in title, abstract and/or keywords.

3. Brief Historical Approach to Fake News

We all know that the fake news phenomenon is not new. However, the tools or methods employed currently are different (Posetti and Matthews 2018; Uberti 2016). Deformation of facts, biased information, advertising and information used to discredit beliefs and values have always been part of society. What could be similar, in ancient times, to what is currently called fake news, may have served as a political maneuver even in Roman times, in 44 BC (Posetti and Matthews 2018). There is various evidence over the centuries that fake news may have always existed.

For example, in Rome, there was a person well known since the 16th century as Pasquino, that was used to disseminate false information and unpleasant rumors to discredit and defame public figures and politicians (Burkhardt 2017a; Canavilhas and Ferrari 2018; Darnton 2017). Additionally, in France, around the 17th century, there was a kind of newspaper, "Canard", which sold fake news on the streets of the French capital (Darnton 2017). Fake news was also spread in Germany in the 19th century. Mcgillen (2017) investigated the techniques used by the creators of fake news during this period, and argued that the misinformation could be related to the creation of fake foreign correspondents in the press to deal with an increasingly competitive market (Mcgillen 2017). As sending correspondents abroad was very expensive, there were fake reporters who made up attractive stories. This reason may indicate that, as it happens today, in the 19th century the motivation for the creation of fake news was also economically and financially based (Bernal 2018).

Being nor recent, nor invented by Donald Trump, fake news has attained an unprecedented influence and reach due to the current media ecosystem. Burkhardt (2017a) divides the history of fake news into four eras: Pre-printing press era, post-printing press era, mass media era and internet era (Burkhardt 2017a). The author says that in the first era (the pre-printing press), fake news was about information control, where knowledge is also power. It gives the example of Procopius of Caesarea who used the spread of false information to discredit Emperor Justianian in the sixth century (Burkhardt 2017a). The Canard in France and Pasquino in Italy characterize the post-printing press era. In the mass media era, the radio show "Broadcasting the Barricades" broadcasted fake news as a parody in 1926, alarming the unknowing population, stands as an example (Burkhardt 2017a). Finally, in the internet age category, fake news has been spread and widely shared, with the most known episodes being the "Pizzagate conspiracy" and the Pope's endorsement of Donald Trump candidacy.

Contemporary Usage

According to Watson (2018b) the term was first coined in the late 19th century by Merriam Webster (Watson 2018b). Prior to this date, the term fake news was used merely to designate false news. Note that "fake news" does not assume the same meaning as "false news". Meneses (2018) argues that both may have similar but never equal meanings. For the author, the difference is in the intention with which the lie is produced and disseminated. False news is associated with journalistic error, lack of competence and irresponsibility, while fake news relates to "false information" that was deliberately intended and intentionally misleading (Meneses 2018). Meneses (2018) states that the term false news has always existed, unlike fake news, which has only been around for the past 20 years. The neologism is the result of technological advancement, the internet and social media.

The term became popular during the 2016 US presidential election. The concept became an instrument or political weapon of Trump's campaign, used recurrently in his speeches. However, it was Hillary Clinton who brought the term fake news to the campaign, in an intervention that accused the false propaganda circulating on social media. Quickly, Donald Trump assumed the term and began using it repeatedly on twitter, making it viral (Wendling 2018).

4. Defining Fake News: A Current Problem

There is still no consensual definition of fake news in the literature. Despite the extensive use of this terminology that has been made by the academy, the media and politicians, the truth is that defining the concept of fake news has not been easy. Although the term fake news may exist since the 19th century (Watson 2018b), its meaning has undergone several changes over the years, becoming popular in 2016, during the American presidential election campaign (Meneses 2018). Since then, the concept of fake news has been repeated in the media context, which has made its meaning more equivocal. Due to the dimension that the concept acquired, "fake news" became the most popular term in 2016, being the most searched on the Google search engine (Zaryan 2017). In 2017, the Collins Dictionary also decided to name the terminology as the word of the year. Donald Trump was the politician, as a candidate for the White House in 2016, who popularized the term. Trump started using the concept repeatedly to label all journalism that did not favor his campaign (Farkas and Schou 2018). So, since the American elections, fake news has been mostly used to promote ideologies or to make money (Lazer et al. 2018).

The polysemy acquired by the word fake news causes several authors to contest the use of the term. Habgood-Coote (2019) argues that the terminology has been used incorrectly by journalists and scholars, stating that the term fake news does not have a stable meaning and is dependent on various contexts (Habgood-Coote 2019). Moreover, Habgood-Coote (2019) considers the terminology "absurd" and unnecessary, due to the multiplicity of definitions and serves for propaganda uses that can jeopardize democracy (Habgood-Coote 2019). Precisely because of the panoply of definitions around fake news, the European Commission's report chose to use only the terminology "disinformation" (Cock Buning 2018). The choice of disinformation, by the European Commission report, covers a broader spectrum of false or fraudulent information, with a deliberate intention to deceive, in various formats (e.g., memes, manipulated texts) in which fake news fits (Ireton and Posetti 2018). However, most of the literature puts the concept of fake news as corresponding to the format of a news story, from which it gains greater interest and credibility. Even so, the concept of fake news can be an oxymoron, because news must report a true and factual situation (Tandoc et al. 2018b). We are currently witnessing a "shift to post-truth, trading, heavily on assumptions about an "era of truth" we apparently once enjoyed" (Corner 2017).

But what is fake news? In this section we will try to create a definition of fake news based on an analysis of the definitions in the literature, taking into account the context and the importance of the term. Most authors consider fake news to be an article that mimics the format of a news story or report, with fake content that was created with the intent to deceive (Allcott and Gentzkow 2017; Lazer et al. 2018; Rini 2017; Shu et al. 2017; Gelfert 2018; Tandoc et al. 2018b). In fact, it is the intention to deceive that makes it possible to distinguish between fake news and false news (Meneses 2018). False news is not intended to mislead the reader. The false content of a report or piece of news may result from a journalistic error or the journalist's lack of professionalism in verifying its sources (Nielsen and Graves 2017; Gelfert 2018; Meneses 2018). The very word "fake" refers us to the intention to deceive and to lie. "Fake" is associated with counterfeiting, imitating the real (Fallis and Mathiesen 2019; Gelfert 2018). Fake news seeks to be credible and gain legitimacy by imitating the format of the reports or news, in order to manipulate and deceive the reader and make the fake content look real (Blokhin and Ilchenko 2015; Levy 2017; Lazer et al. 2018). It is important to highlight that we approach contemporary fake news, that is, in an online context, in which false statements are widely shared in the digital universe, namely in social media. The goal of contemporary fake news is to go viral (Rini 2017; Meneses 2018; Calvert et al. 2018). For these reasons, fake news can take the form of a news feed post (in the case of Facebook) or a tweet (in the case of Twitter), just like the real news is presented on these social media (headline, image, signature/source). In addition, fake news links to sites that mimic real news sites (Silverman 2016).

Fallis and Mathiesen (2019) consider fake news to be counterfeit news, which falsifies what is genuine and true (Fallis and Mathiesen 2019). As in art, for example, valuable paintings or coins are falsified, fake news falsifies news.

On the other hand, most authors believe that fake news does not have to be 100% false or manufactured. Fake news is totally or partially false (Tandoc et al. 2018b; Gelfert 2018; Rini 2017; Allcott and Gentzkow 2017; Potthast et al. 2017; Kalsnes 2018; Recuero and Gruzd 2019), follows the media agenda and trys to describe real events, distorting and manipulating the truth (Rini 2017; Canavilhas et al. 2019).

Even so, the concept of fake news has been widely contested in relation to the "deliberate intention to deceive". Some authors do not consider the intention of the creator of fake news to be fundamental (Pepp et al. 2019; Walters 2018; Jaster and Lanius 2018). The authors wonder about the intention to deceive young Macedonians who, from a small town, created and disseminated fake news during the American elections. Jaster and Lanius (2018) argues that young people simply did not care about the truth (Jaster and Lanius 2018). The intention may have been only financial (through advertising revenue from online clicks). Young people publish any story for financial gain (Fallis and Mathiesen 2019). The same question is necessary to assess the intention of bots, in the possibility of creating fake news. However, the question of bot intent should not be assessed in this way, but rather the intention of the human mind behind bots or artificial intelligence. Moreover, Pepp et al. (2019) argue that fake news simply does not match editorial criteria and journalistic practices, regardless of the producer's intention (Pepp et al. 2019). Fake news is related to the wide dissemination of content that seems to have been treated with journalistic rigor, but that does not obey such practices.

In view of this problem imposed by the difficulty in defining fake news, we believe that it is important to establish a "working definition" of terminology that allows us to respond to the new challenges of journalism and communication. Many studies (Mulroy 2019; Rubin et al. 2015; Verstraete et al. 2017; Watson 2018a; Wardle 2017; Weiss et al. 2020) have sought to categorize fake news, rather than finding a useful definition for contemporary debate. We argue that the creation of a definition of work, eliminating close meanings such as propaganda, publicity, rumors, conspiracy theories or satirical news, is important to avoid emptying the meaning or definition of fake news.

We consider fake news to be "a type of online disinformation, with totally or partially false content, created intentionally to deceive and/or manipulate a specific audience, through a format that imitates a news or report (acquiring credibility), through false information that may or may not be associated with real events, with an opportunistic structure (title, image, content) to attract the readers' attention and to persuade them to believe in falsehood, in order to obtain more clicks and shares, therefore, higher advertising revenue and/or ideological gain."

5. Consumption and Share of (Fake) News on Social Media

Sharing news on social media has become customary not only for users/readers, but also for different journalistic organizations looking to generate traffic to their websites by sharing content on social media like Facebook or Twitter (Valenzuela et al. 2017). Whatsapp is also being used to massively disseminate false information. For example, in India, fake news about the conflict between Hindus and Muslims is circulating in different formats (photos, videos) (Khurana and Kumar 2018). Additionally, in Brazil, Whatsapp was, during the 2018 elections, the most used tool to spread fake news. In Brazil, Whatsapp is no longer just a messaging app, it has become a full blown social media network that can influence political ideologies (Gragnani 2018). This mechanism not only changed the form of consumption, but also the production of news content and the profession of journalists. However, social media can symbolize "a double-edged sword" for its users, presenting reliable news articles, but also fake news and disinformation articles in general. The literature shows that the search for social approval (Lee and Ma 2012; Bright 2016), content with emotional impact (Duffy et al. 2019; Harber and Cohen 2005), party and ideological beliefs (Marwick 2018; Uscinski et al. 2016) or the desire to inform "friends" (Galeotti 2019; Duffy et al. 2019) are some of the user's main motivations for sharing news.

However, users who share fake news also explore some of these motivations. This is why grasping the mechanisms behind news sharing and consumption becomes so important to understand the reasons why fake news continues to be so widely shared and consumed on social media.

Although we cannot consider fake news to be "news", since its information is totally or partially false (Gelfert 2018; Rini 2017) and is created with the aim of deceive or manipulate and misinform (Gelfert 2018; Meinert et al. 2018; Pate and Ibrahim 2020; Tandoc 2019), we recognize that fake news takes on the value of "news", in the sense of bringing "information" or "novelty", even if it is false. Fake news seeks to become legitimate and credible mostly by imitating the format of real news (Lazer et al. 2018; Levy 2017), with similar sources (Tandoc et al. 2018a; Silverman 2016), so if one can consider that the majority of people who share a fake news consider it to be true, it follows that their motivations are similar as when sharing real news.

However, it is known that there may also be people who share fake news with the same intention as those who created it, that is, with the deliberate intention of deceiving, which can be done for different reasons. These spreaders, like the fake news creators, can be motivated by the ambition to attract attention, to denigrate the image of a political candidate, to impose a certain ideological belief or to encourage some type of behavior on users (Lewis and Marwick 2017; Marwick 2018). People who consciously share fake news can do it simply for fun or to create chaos (Vorderer et al. 2004; Coleman 2014). On social media, for both fake news and news, likes, reactions, comments and shares can serve as credibility criteria for other users (Delmazo and Valente 2018), as they may also have implications for how topics are selected, produced and disseminated either by journalists or by fake news producers (Salgado and Bobba 2019).

The Main Motivations for Sharing Fake News

News sharing can be defined as a common practice of a user who intends, through social media, to make known or recommend content to other people (Kümpel et al. 2015). However, what motivates people to share news? And in what ways are these motivations similar to those of sharing fake news? First, human beings are interested in controversial, surprising or bizarre subjects, which literature has shown to be the ones that motivate greater sharing by users (Duffy et al. 2019; García-Perdomo et al. 2018; Harber and Cohen 2005; Kim 2015). These aspects are common in fake news content, at the same time as covering the same media agenda as the media, they distort information, propagate falsehoods with the formulation of exaggerated stories (Polletta and Callahan 2019), and feed conspiracy theories based on society's fear and panic.

Fake news is mostly made up of sensational and controversial headlines, and their emotional language can contribute to being widely disseminated (Vosoughi et al. 2018). Emotion can be associated with the belief in fake news and the influence and persuasion it have on the public (Martel et al. 2019). Content that encourages strong feelings (positive and negative) such as happiness, excitement or anger is more likely to be shared (Harber and Cohen 2005; Valenzuela et al. 2017; Berger and Milkman 2012). Additionally, García-Perdomo et al. (2018) concluded that the surprise and the drama draw in the user's attention (García-Perdomo et al. 2018).

Second, social relationships and the user's social status or reputation are relevant indicators for news sharing (Lee and Ma 2012; Bright 2016; Duffy et al. 2019). The user feels that his/her social reputation is reinforced, showing his interaction center (friends, private and public groups) that he is "informed" and that he has new and relevant "information". The transmission of a novelty can lead the user to be more easily accepted, especially if it is impressive information, which is mostly consistent with the main characteristics of fake news (Galeotti 2019). The same motivation also promotes involvement in gossip (Talwar et al. 2019). However, Duffy et al. (2019) showed that sharing fake news can have negative effects on interpersonal relationships. Sharing false information can jeopardize the user's entire social reputation. In addition, social media can serve to expose hate speech or vengeful behavior (Fox and Rooney 2015; Garcia and Sikström 2014; Mathew et al. 2019). Associated with these sociological and psychological aspects, the literature has shown that fear of

missing out (FoMO) is related to the use of social media and can be a factor that contributes to the user's need to share information (Alt 2015; Talwar et al. 2019). FoMO is related to a feeling of anxiety or a psychological reaction that motivates users to try to reinforce their popularity in a certain group, with the aim of obtaining approval and feeling included. FoMO can make people more vulnerable to gossip consumption (Talwar et al. 2019).

Third, false or conspiratorial information is also more likely to be shared if it confirms the user's beliefs and opinions (Uscinski et al. 2016; Marwick 2018), which also justifies the political and ideological importance in their dissemination and the creation of different segregation groups, such as echo chambers and filter bubbles. Social media can contribute to the proliferation of fake news, either through recommendation algorithms or through the characteristics of the media (Bernal 2018; Zimmer et al. 2019a).

The sharing of fake news is still related to the format of fake news, since it is built with the aim not only to deceive, but also to become widely shared online (Rini 2017; Bakir and McStay 2018). All its characteristics (for example, clickbait, exaggerations, controversies, scandalous and dramatic images) draw users' attention to their reading and sharing, with two objectives: to generate advertising revenue and/or obtain ideological gain (Lazer et al. 2018). In fact, sharing fake news can serve as a fraudulent strategy to make money from programmatic advertising on the web, based on online views and clicks. The intention to make easy money by spreading fake news has been one of the main motivations for the creators of fake news. In 2016, there were several sites located in Macedonia that spread false stories about the American elections, in order to make money through Google AdSense advertising (Silverman and Alexander 2016). According to Silverman and Alexander (2016), these young people were not interested in political issues, but in the economic incentives coming from Facebook, which allowed them to generate traffic to their websites (Silverman and Alexander 2016). One of the creators of fake news said in an interview with Inc magazine that he made more than $ 10,000 a month in advertising (Townsend 2016).

6. Turning Fake News Viral

There is no "magic formula" for fake news to go viral and widely shared, but rather a set of reasons and aspects related to the network and users that can determine the popularity of content (Valenzuela et al. 2017). The popularity of a (fake) news can be conditioned mainly by the relevance/importance of the publication for the audience (Salgado and Bobba 2019; Galeotti 2019; Trilling et al. 2016). This importance is subjective, since this (dis)information may only interest some readers and not all. Rini (2017) considered this factor when defining fake news, saying that its fake content is produced to deceive a part of its audience, although one of the main objectives of fake news is to be widely disseminated. Within the degree of importance that a piece of (fake) news can represent, its popularity can also be related to the characteristics of the coverage of a given event or to the topic being addressed or explored (Vosoughi et al. 2018; Bright 2016; Budak 2019). If we focus, for example, on the top 50 of the most popular fake news items on Facebook, in the United States in 2016, we find that stories about politics were the most viral (Silverman 2016). Fake stories indicating that "Donald Trump was endorsed for President by Pope Francis" or that "the FBI agent, related to the Hillary Clinton email leak, was found dead" were some of the ones that generated the most engagement. In this Top 50, we can find exaggerated and outrageous headlines, with a special focus on "shocking" or "ridiculous" crimes. For example, "Woman arrested for defecating on boss' desk after winning the lottery" is the second most popular fake story, found by surveying a BuzzFeed News investigation (Silverman 2016). Fake news uses topics related to money laundering, crimes, sexual crimes or fraudulent, imaginary and political inventions. These topics, for example, also exist online as misinformation in other countries, so it does not just happen in the United States (see Figure 1).
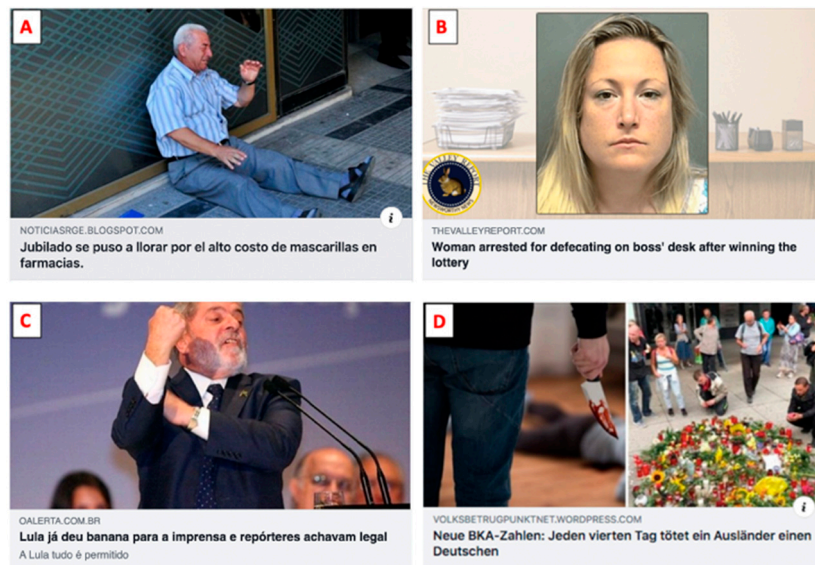
Figure 1. Four fake news items on social media in different countries verified by fact-checkers (Spain, United States, Brazil, Germany). Note: All images (**A**–**D**) were taken from fact-checking websites. Image **A** ('Maldita.es'), image **B** ('Snopes'), image **C** ('Lupa') and image **D** ('Correctiv'). The addresses of sites are described in footnotes.[1]

The choice of headlines was random in order to show examples of false and outrageous titles that exist and are verified by fact-checkers. Figure 1 shows four fake stories in different countries: in Spain (Figure 1A), in the United States (Figure 1B), in Brazil (Figure 1C) and in Germany (Figure 1D). All headlines were checked by the fact-checkers in their countries. In addition to being fake, they all have exaggeration, sensationalism and even violence in common. Figure 1A appeals to the emotional part of the reader, stating that an elderly person is crying for not having money to buy protective masks for the COVID-19 pandemic. The image was manipulated and taken out of context[2]. In Figure 1B, the fake story is unusual, outrageous and impressive[3]. In Figure 1C, the subject criticizes the press for allowing an offensive gesture by former President Lula da Silva, claiming that he bribed the press[4]. In Figure 1D, fake news explores the controversial issue of refugees, blaming them as perpetrators of crimes. The image is shocking and violent[5].

6.1. The Role of the Structure of Fake News

The way in which the structure (for example, from the images chosen, the format of the titles and the language used in the text) of fake news is presented can help explain the reasons for it becoming viral on social media. This analysis intends to focus only on these aspects of fake news, that is, on its formats, content and standards used. We do not address the influence of artificial intelligence, nor the activity of malicious algorithms or bots, nor the spreading techniques in filter bubbles or echo chambers in this section.

Heath (1996) showed that people have a preference for exaggeration, especially if the news is exaggeratedly bad, so (fake) news that presents accidents, disasters or crimes can generate greater emotional sharing (Bright 2016; Heath 1996).

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[1] For more information see the following websites.
[2] Figure 1A: https://maldita.es/malditobulo/2020/04/12/abuelo-llorando-elevado-coste-mascarillas-coronavirus/.
[3] Figure 1B: https://www.snopes.com/fact-check/woman-quits-winning-lottery/.
[4] Figure 1C: https://piaui.folha.uol.com.br/lupa/2020/02/21/verificamos-lula-banana-imprensa/.
[5] Figure 1D: https://correctiv.org/faktencheck/migration/2019/06/14/bei-83-getoeteten-deutschen-2017-waren-auslaender-tatverdaechtig-aber-nicht-nur-fluechtlinge.

Still, fake political news spreads quickly, like that regarding terrorism, natural disasters, urban legends or financial information (Vosoughi et al. 2018). Vosoughi et al. (2018) demonstrate that false content about politics was not only more widely disseminated, but also reached a larger number of people, compared to other subjects. Without specifying the category of false information, these authors showed that falsehood spreads faster than truthful content, stimulating different feelings in those who read it: disgust, fear or surprise (Vosoughi et al. 2018). On the other hand, Humprecht (2019) demonstrated that, unlike the USA and the United Kingdom (where online disinformation is mostly political and partisan), in Germany and Austria, sensationalist stories predominate over political content (E. Humprecht 2019). In an analysis of the fact-checkers in these four countries, the author found that online disinformation in English-speaking countries tends to target political actors, whereas in German-speaking countries, the main focus is immigrants, holding them responsible for current political, economic or social situations. For example, in Brazil and Portugal, one of the main targets of online disinformation is also corruption and politics (Cardoso et al. 2019; ISCTE 2019).

Budak (2019) found that the topics covered during the American elections on Twitter by the traditional media are different compared to fake news agencies. Traditional news focused more on policies related to the economy, elections, women or the environment (Budak 2019). Budak (2019) shows that the coverage of candidates (Hillary and Trump) from the fake news agency is different from the media. The most frequent words used in detected fake news, such as "sex", "death", "corrupt", "illegal", "alien" or "lie", they refer to sensational or outrageous content, unlike traditional media (Budak 2019).

The literature has demonstrated, in fact, that the lexicon used by fake news is more informal and simple in detail and in technical production, not only in the title of the piece, but also throughout the text (Horne and Adali 2017). Several elements taken into account by the producers of fake news, such as simple and impressive messages, with attractive headlines that appeal to the feelings of the public, through clickbaiting, are essential for repeated disclosure (Munger et al. 2018). These factors make the story not only more attractive, but also more persuasive (Wiggins 2017).

In a content analysis, Horne and Adali (2017) found that fake news articles can be distinguished from real news by their lexical coherence. "Real news articles are significantly longer than fake news articles and fake news articles use fewer technical words, smaller words, less punctuation, fewer quotes, and more lexical redundancy" (Horne and Adali 2017). The authors report that fake news needs lower levels of education to be interpreted.

These characteristics allow us to verify that fake news also plays a persuasive role through mostly heuristic methods. In other words, fake news requires less effort and attention (Horne and Adali 2017; Baptista 2020). The association of ideas and the reader's interpretations may be less logical and based only on their titles, since fake titles have significantly more words, have too much content and exaggeration (through hyperbolic words) that resemble clickbait (Horne and Adali 2017; Bazaco et al. 2019). Wiggins (2017) considers that the sensationalist and attractive way in which most fake news is presented fits into the peripheral route of persuasion, which "implies focusing on those elements not central to the argument or message, but paying more attention to how the message is presented" (Wiggins 2017), as opposed to the central route.

6.2. Is It Too Good or Too Bad? The Importance of Content to Be Viral

When analyzing what makes fake news viral in the online universe, we also have to take into account the type of news (negative or positive) explored. The literature has shown that fake news uses impressive headlines, reports exaggerated events that provoke a variety of feelings, from joy or enthusiasm (positive), to anger or sadness (negative). This hyperbolic way of presenting fake stories can contribute to it going viral. Salgado and Bobba (2019) concluded that the news on Facebook attracts more attention when the tone is negative (Salgado and Bobba 2019). Heath (1996) also showed that people have a preference for exaggeration, especially if the news is exaggeratedly bad, so (fake) news that presents accidents, disasters or crimes can generate greater emotional sharing (Heath 1996). In fact,

several studies (Galil and Soffer 2011; Soroka and McAdams 2015) have shown that bad news (such as crises, wars or tragedies) attracts greater public attention (for a summary of the main characteristics that can make fake news viral, see Table 1).

Table 1. Main features of fake news.

Main Features of Fake News	
What Makes Its Viral?	
Characteristics (Synthesis)	**References**
Emotional content	(Duffy et al. 2019; García-Perdomo et al. 2018; Vosoughi et al. 2018; Berger and Milkman 2012; Valenzuela et al. 2017; Bright 2016; Kim 2015)
(Language that evokes strong feelings (positive/negative); bizarre, impressive and shocking crimes; tragedies, exaggerated and dramatic stories)	
Heuristic persuasion	(Horne and Adali 2017; Baptista 2020; Wiggins 2017; Budak 2019; Galeotti 2019)
(Pretentious, simple, persuasive and informal language)	
Imitation of the journalistic format	(Lazer et al. 2018; Blokhin and Ilchenko 2015; Braun and Eklund 2019; Levy 2017; Silverman 2016; Tandoc et al. 2018b)
(false legitimacy and credibility)	
Clickbait	(Munger et al. 2018; Bazaco et al. 2019)
(long titles, sensationalism; titles to attract and to arouse curiosity)	
Images	(Silverman 2016; Bright 2016; Marwick and Lewis 2017)
(Impressive, manipulated images; exaggerated, extremely visual)	

Baumeister et al. (2001) argue that bad events are "stronger" than good ones, noting that bad information is more processed. "The self is more motivated to avoid bad self-definitions than to pursue good ones. Bad impressions and bad stereotypes are quicker to form and more resistant to disconfirmation than good ones" (Baumeister et al. 2001). On the other hand, Berger and Milkman (2012) concluded that virality is related to physiological excitement, which can either be stimulated by strong negative or positive emotions (Berger and Milkman 2012). These stories that evoke strong feelings become more attractive and easily shared.

Weeks and Holbert (2013) showed that virality may be related to whether the content is interesting or emotionally stimulating (Weeks and Holbert 2013). In this sense, Fernandez (2017) stresses that the important thing is to stimulate a reaction, whether by ridiculing or expressing indignation (Fernandez 2017). The author states that the reaction to fake news can be positive (if we think of a cute story) or negative (scandalous disasters), but the crucial thing is that the article leads people to comment and react to the subject. If we look at the fake news that indicated that the Pope had endorsed Donald Trump, Fernandez (2017) argues that in addition to an emotional mix (shock, bewilderment, excitement, indignation), there is still an involvement related to a political and cultural identity, with the mix of religious and political affiliations.

7. Who Are Fake News Consumers?

Several investigations have recently sought to understand which factors are associated with the selection and consumption of fake news in an online environment. The belief, consumption and dissemination of fake news may be related to several aspects: for example, the growing distrust in the media (Swift 2016; Nielsen and Graves 2017), the users' level of education (Pop and Ene

2019; Flynn et al. 2017), age and gender (Shu et al. 2018b; Tanțău et al. 2019; Manalu et al. 2018), party affiliation and ideological identity (Allcott and Gentzkow 2017; Uscinski et al. 2016; Rini 2017), with the availability and time dedicated to social media (Nelson and Taneja 2018) or with our cognitive ability (Pennycook and Rand 2017, 2019b) (see Table 2).

Table 2. Literature review: main factors that influence the belief in disinformation and misinformation online (2016–2020).

Main Factors	References
Lower Education or Digital Literacy	(Tandoc et al. 2018a; Craft et al. 2017; Kahne and Bowyer 2017; Leeder 2019; Douglas et al. 2016; Flynn et al. 2017; Pop and Ene 2019; Reuter et al. 2019)
Testimony/proximity of the relationship	(Sterrett et al. 2019; Turcotte et al. 2015; Burbach et al. 2019; Sterret et al. 2018; Halpern et al. 2017; Torres et al. 2018; Rini 2017; McNeill 2018; Correia et al. 2019)
Partisanship or political ideological belief	(Swire et al. 2017; Uscinski et al. 2016; Allcott and Gentzkow 2017; Rojecki and Meraz 2016; Linden et al. 2020; Pennycook and Rand 2019a; Gunther et al. 2018; Guess et al. 2020; Shin and Thorson 2017; Brandtzaeg and Følstad 2017; Mourão and Robertson 2019; Marwick 2018; Halpern et al. 2019; Flynn et al. 2017; Greenhill and Oppenheim 2017; Faragó et al. 2019; Hayes et al. 2018; Jost 2017; Rini 2017; Barnidge et al. 2020; Galeotti 2019; Mancosu et al. 2017; Pereira and Van Bavel 2018; Reuter et al. 2019)
Distrust in the media	(Bennett and Livingston 2018; Gibson 2018; Marwick and Lewis 2017; Linden et al. 2020; Brandtzaeg and Følstad 2017; Halpern et al. 2019; Lazer et al. 2018; Tandoc et al. 2018a; Torres et al. 2018; Nielsen and Graves 2017; Swift 2016; Wasserman and Madrid-Morales 2019)
Lower Cognitive ability	(Pennycook and Rand 2019a; Shin and Thorson 2017; Roets 2017; Celliers and Hattingh 2020; Leeder 2019; Pennycook and Rand 2017; Čavojová et al. 2019; Pennycook and Rand 2019b; Bronstein et al. 2019)

Too much time spent on social media increases the user's exposure to false or illegitimate content, especially if the user has a very active political identity or participation (Halpern et al. 2019). The exposure can also become repeated, making the content more familiar and easily accessible, which can induce a belief (Galeotti 2019). Even though this exposure is later denied by fact-checkers, the user can continue to believe in its content (Pennycook et al. 2018).

Despite this, Halpern et al. (2019) concluded that the use of social media is not related to the belief in fake news. The authors argue that more connected users may have greater knowledge in selecting quality information, exposing themselves less to this type of disinformation (Halpern et al. 2019). It should be noted that some studies have found that the fake news audience is smaller than the real news audience (Allcott and Gentzkow 2017; A. Guess et al. 2019). Regarding the American election period, in 2016, Guess et al. (2019) even mention that some warnings about the echo chambers had been exaggerated, since they estimated that only one in four Americans visited disinformation websites during the elections. In addition, the audience that consumes fake news is not only limited to filter bubbles and echo chambers, since this audience is also exposed, on social media, to real news (Nelson and Taneja 2018).

In Italy and France, in 2017, most fake news sites reached less than 1% of the online population per month, even though the engagement generated by some fake news on Facebook has exceeded the engagement generated by the most popular real news.

However, this was not the case in most situations (Fletcher et al. 2018). Fake news has a smaller audience than mainstream media, and the levels of distrust in these traditional media sources are lower. Still, online disinformation is currently a political weapon and Facebook is one of the main means of spreading fake news (Bernal 2018), while it remains the preferred social network for accessing news (Newman et al. 2019). What justifies these results?

The consumption of fake news may be related to the user's availability to use social media. Nelson and Taneja (2018) demonstrated that the selection of information and TV programming has to do with the time available and our schedules, and not exactly with the preferences of the public (Nelson and Taneja 2018). Users with more time available for the internet not only tend to look for other alternative means (Elberse 2008), but are more exposed to all types of information, especially the most popular ones. The time spent on Facebook and Google is positively correlated with the consumption of fake news (Nelson and Taneja 2018). Additionally, the user's level of education can influence the belief in and dissemination of fake news. More educated people, especially young people, are less likely to share false information (Pop and Ene 2019). Flynn et al. (2017) found that the level of education can be a tool in combating the spread of disinformation online (Flynn et al. 2017). Nevertheless, Manalu et al. (2018) found that users aged between 15 and 30 years are more susceptible to believe in fake news, because they are more exposed.

The Digital News Report 2019 points out that young people are not so predisposed to "to work hard for their news", and prefer "easy" and "fun" access (Newman et al. 2019). Some studies (McGrew et al. 2018; Wineburg et al. 2016) have already shown that school and college students have a hard time distinguishing between false and true information. Contrary, in a study that sought to analyze the profiles of users who believed in fake news, it was shown that it is older people and those who are more outgoing and friendly who trust fake news (Shu et al. 2018b).

Munger et al. (2018) concluded that the elderly have a greater preference for clickbait headlines, that is, titles that are designed with the objective of attracting the attention of the reader to click on content of "doubtful value or interest" (Merriam-Webster n.d.; Munger et al. 2018). Consumption can also vary due to gender differences: women are more likely to share false information, although it is men who prefer to consume news through social media (Shu et al. 2018b).

These demographic variables can also be related to the belief and spread of false rumors. Lai et al. (2020) found that women are more likely to believe rumors. The same is true of less literate or educated individuals (Lai et al. 2020). However, the traits related to the personality of each person can also be related to the belief in false rumors, such as people with high values of neuroticism and extroversion (Bordia and DiFonzo 2017; Lai et al. 2020).

From a psychological perspective, several studies (Deppe et al. 2015; Kahan 2013; Pennycook and Rand 2019a, 2019b) found that analytical and intuitive thoughts can interfere with the evaluation of false or true information. According to Pennycook and Rand (2017), the most intuitive individuals are more spontaneous, perform quickly with little attention or intellectual reflection, which turns them more likely to believe in "bullshit" (Pennycook and Rand 2019a), since the majority of the public is limited to reading the headlines (Gabielkov et al. 2016).

Related to this aspect, (Pennycook and Rand 2019a; Swire et al. 2017; Deppe et al. 2015) point out, for example, that liberals tend to be more analytical than conservatives. Conservatives rely more on intuition, so conservatives may be more likely to consume fake news or to believe in "bullshit". Jost et al. (2003) analyzed the social behavior associated with conservatism and found that ideologically right-wing people, in the social sense, have a greater tendency to reject complex topics and are more dependent on implicit reasoning (Jost et al. 2003).

Tetlock (1983) had previously found that conservatism is associated with a more closed mind, which offers resistance to complexity and change, drawing lessons from the world around it through quick judgments, sometimes based on stereotypes (Tetlock 1983).

The belief in fake news can be greater in people prone to delusion, with psychotic thoughts or who follow unusual opinions or ideas such as being aware of conspiracy theories or paranormal phenomena (Douglas et al. 2019).

Political Ideology, Partisanship and the Consumption of Fake News

The relationship between the producer and the consumer of fake news, as we have seen, is established in a direct and normal way, obeying mechanisms that concern the cognitive field of

human nature itself. Rini (2017) argues that people govern their belief in certain information based on testimonies. Fake news reaches a user through the testimony of another person, who shared it and accepted it as being true. The testimony is transmitted, especially on social media, often in a biased way, since it comes from someone who has just shared an ideology or expressed a party attachment. This information will be accepted and shared by a recipient who also agrees with these social values (Rini 2017).

Barnidge et al. (2020) demonstrated that selective exposure is driven by political reasons and that users seek to confirm a pre-existing beliefs (Barnidge et al. 2020). Galeotti (2019) argues that belief in fake news is related to motivational factors generally related to people's parties or ideological attachments. People are more likely to accept or reject certain arguments, news or information depending on their political beliefs (Galeotti 2019).

Uscinski et al. (2016) found that partisanship affects belief in a conspiracy theory and that party affiliation tends to assume different attitudes towards different conspiracy theories. Mostly, the tendency is for people to believe that it is the political opposition that is related to conspiracy theories, rumors or illegal activities (Uscinski et al. 2016). However, Uscinski et al. (2016) suggest that both Democrats and Republicans are equally predisposed to accept conspiracy theories. Still, the literature seems to indicate that ideologically right-wing people are more widely connected to conspiracy theories or are more likely to believe, consume and spread fake news (Douglas 2018; Halpern et al. 2019; Lewis and Marwick 2017; Mancosu et al. 2017; Marwick 2018). This belief is mainly associated with people who identify with a right-wing populist political narrative (Mancosu et al. 2017). In fact, the rise of fake news is related to distrust in public and political organizations, namely the media and political elites. McNair (2017) argues that the distrust of the audience and the electorate in general, contributed to the growth of populist and nationalist politicians like Trump or Marine Le Pen (McNair 2017).

The literature has been able to find a positive correlation between populism and conspiracy, with anti-elitist, anti-corruption narratives and a basis on stereotypes and prejudices (A. Marwick and Lewis 2017; Van Prooijen et al. 2015). However, the belief in this type of information does not have to be linked solely to the right, but rather to extremist ideologies of both the right and the left (Van Prooijen et al. 2015). History shows us that the extremist regimes that existed were marked by following some ideas fueled by conspiracy theories, such as communism (on the far left) and fascism (on the far right) (van Prooijen et al. 2018). However, if we look at the most popular fake stories in the US, we can see that the narrative has characteristics that are generally more accepted by the right than by the left.

Douglas (2018) argues that fake news devoted to the right has a religious dimension. The author gives as an example the conspiracy that Clinton was associated with satanic rituals, the fake news that the Pope endorsed Trump, or a series of disinformation linked to the Islamic State or Muslims. On the other hand, this does not mean that people on the left do not consume or spread fake news (Douglas 2018). Douglas (2018) mentioned that fake news directed to the left has Donald Trump as the subject. Allcott and Gentzkow (2017) were even able to verify that Democrats and Republicans have a 15% probability of believing in ideologically compatible information, even though this percentage is higher in segregated groups (Allcott and Gentzkow 2017). On the other hand, Republicans showed that they were more likely to share fake news that was not of a political nature (Pereira and Van Bavel 2018).

Republicans may be more vulnerable to consuming fake news than Democrats, who have shown themselves to be more "skilled" at distinguishing fake from real articles (Allcott and Gentzkow 2017). Conservatives also may be more exposed to fake news content on social media (Bakshy et al. 2015). However, some authors (Nelson and Taneja 2018; Gentzkow and Shapiro 2011) state that social media users tend to follow the most popular sources, with greater engagement, regardless of their ideology.

8. Conclusions

The latest studies on fake news seem to indicate that fake news and disinformation websites reach a small sample of the population, compared to the reach of real news and the traffic generated by

credible news websites. However, this is no reason to devalue the impact or negative effects of fake news, as it continues to circulate on social media. With this review article, we verified that fake news appropriates all possible aspects to attract the reader's attention, from the way the title of a piece is presented, to the language that is used throughout the article. This language seeks, above all, to be simple, emotional and persuasive.

Regardless of the importance that technology in general—and social media in particular—and the online environment have on the dissemination of online disinformation, fake news is created with the aim of exploring all the "opportunities" and advantages that social media provides them. Fake news only reaches its goals, ideological or financial, if it is widely shared. The creators of fake news seek to explore all possible aspects that can motivate the consumption and sharing of users. The concern of the creators of fake news in making the publication viral or popular starts right away with the choice of the theme to be addressed, in the language they use throughout the text, in the title they attribute to the publication and in the image they use.

Several studies have shown that the fake news agency's agenda is similar to traditional media. Fake news distorts, manipulates and falsifies facts to make the subject more surreal, bizarre, surprising and controversial, and these aspects motivate the sharing by users. Thus, a false story is much more likely to go viral than a real one.

In addition, we found that what motivates the consumption and sharing of fake news continues to merit further investigation. The empirical results presented regarding the demographic dimensions, and the consumption of fake news, are not unanimous. On the other hand, the belief in fake news is closely related to the motivational factors that imply party, political and ideological affiliations.

Although much of the literature considers right-wing people more likely to believe not only in fake news, since fake news mostly exploits narratives devoted to this ideology, other studies do not support this correlation.

9. Future Approaches

The characteristics of the fake news' structure deserve more attention by researchers, in order to understand its wide dissemination in the digital universe. It is increasingly important to monitor the evolution of its online presentation, since fake news adapts according to the digital evolution, acquiring new formats. Future works may address the influence of the new formats not only on fake news, but on disinformation in general, namely internet memes. In addition, it will be important to study the phenomenon of fake news with a wider range of sources, in different scenarios and not so specifically in the US scenario.

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Review

Framing Studies Evolution in the Social Media Era. Digital Advancement and Reorientation of the Research Agenda

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Abstract: Framing studies remain a powerful line of research in political communication. However, in recent years, coinciding with the emergence of social media, theoretical and operational advances have been detected, as well as a significant reorientation of its research agenda. The interaction between media and platforms such as Twitter or Facebook has built a clearly hybrid communicative environment and profoundly transformed the organization of public debate. This is the case, especially, with processes such as the setting of the public agenda or the construction of interpretive frames. Based on a systematic review of the international reference literature (2011–2021), this article analyses the influence of social media on the evolution of framing studies. Moreover, specifically, the beginning of a new stage of digital development is contextualized, and a triple research impact is explored. The main contributions of the text are that it (1) identifies advances in the theoretical and empirical organization of these studies; (2) explores its reorientation of content towards a greater balance between the analysis of media and political frames; and (3) reviews the recent experimental development of effects studies. Finally, the main challenges for future research in this field are detailed.

Keywords: political communication; framing; frame analysis; social media; digital media; digital platforms; news frame; framing effects; frame building; hybrid media

1. Introduction

Setting the agenda and building interpretive frames to guide public debate continue to be two key journalistic functions in democratic societies. To this day, the media maintain their leading role when it comes to identifying the main social problems and offering simple interpretive schemes to citizens (Casero-Ripollés 2018). Consequently, they maintain a notable influence in shaping public attitudes about current affairs.

Despite its prior application to other disciplines, framing studies have had a regular presence in the communication field since the mid-1990s. Currently, they constitute a powerful line of research in both journalism and political communication (Entman and Usher 2018). The concept of "framing" has proven very useful to connect and explain globally the processes of production, distribution, and consumption of political information. Moreover, it has achieved relevant results, above all, in the study of two processes: the strategic orientation of the journalistic message and the social construction of public debate (D'Angelo 2012). However, it also carries a general dispersion problem, some theoretical ambiguities, and methodological limitations. Furthermore, it has been characterized by a certain imbalance in its research agenda. While the study of the message has played a major role when dealing with political issues in the reference press, other issues have been left in the background, especially the sociological dimension of the concept, the analysis of the audience frame, and the experimental study of its effects (Muñiz 2020).

At present, the situation of framing as a research program is complex. On the one hand, intense research activity is maintained which, together with its classic conceptual and operational "fragmentation", has led to a certain saturation in the field (D'Angelo et al. 2019). On the other hand, the digital context has brought obvious advances. The conceptual

debate offers more integrative definitions and a better operationalization of the frames (Brugman and Burgers 2018). Furthermore, an expansion of the research focuses on the study of the framing of parties and social movements in their strategic use of networks. Above all, a more comprehensive approach is consolidated when reviewing the frame building process (Scheufele and Iyengar 2017).

Undoubtedly, the arrival of social media and its consolidation as a political tool, about a decade ago, has had important consequences (Chadwick 2017). Specifically, platforms such as Twitter or Facebook have profoundly transformed the professional dynamics of political communication. To a large degree, the media have lost their monopoly on the management of current affairs and their ability to influence has been limited: political actors and citizens distribute their messages directly to mass audiences and achieve greater prominence in public debate.

These new roles have generated intense interactions between new and old media and in-depth changes in the rules of the game between journalism and politics (Tewksbury and Riles 2018). Among them, communicative hybridization has energized key aspects of the framing process, generating new professional relationships and influences, new types of content and communication styles, and opening a specific line of work that connects the emergence of fake news and misinformation strategies that alter the functioning of the communication system. In this context, the study of social media has become a dynamic factor in framing studies. This leading role, together with theoretical and operational advances, anticipates the opening of a new stage in its research development (Saperas and Carrasco-Campos 2015).

Different studies have reviewed the evolution of framing in political communication in recent years (among others, Borah 2011; López-Rabadán and Vicente-Mariño 2013; Ardévol-Abreu 2015; Knüpfer and Entman 2018; Tewksbury and Riles 2018; Muñiz 2020). However, the impact of social media on its research program has not been specifically addressed. This review article aims to offer an updated vision of the transformation of framing studies in the digital context from a double approach: on the one hand, to critically contextualize its main theoretical and operational advances and its pending challenges; and on the other, to explore the renewal of its research agenda, which includes new content, dynamics, and actors in the process of building political frameworks.

Based on a strategic review of the available literature, our study is organized around the following objectives regarding the evolution of framing studies:

- O1. Identify its current strengths and limitations when explaining the process of the construction of the informative message and organization of the public debate;
- O2. Contextualize the opening of a new stage of research evolution, taking the arrival of social media as a key dynamic factor;
- O3. Synthesize the main theoretical and operational consensus reached in the last decade;
- O4. Analyse the digital reorientation of its research agenda, paying special attention to new analysis techniques and innovative fields of application;
- O5. Review the current debate in research on framing effects, analysing the increase in its activity and the use of new experimental approaches;
- O6. Propose several future challenges for its advance in the context of hybridization of political communication.

From these objectives, the article is organized into five sections. After the explanation of the methodology, the reasons for the research success of the framing theory are detailed and its main limits and contradictions are also updated (Section 3). Next, the current moment is contextualized within the general evolution of these studies (Section 4). Subsequently, several theoretical and operational consensuses under construction are identified, key in a more effective reorganization of the specialty (Section 5). Regarding the diversification of its research agenda, new lines of work and methodological approaches proposed in the last decade are explained (Section 6). Innovation in the study of effects and the increase in experimental activity are addressed in depth (Section 7). Finally, a set of

conclusive ideas about the present and future challenges of this line of research is offered (Section 8).

2. Method

This work is based on a systematic review of the literature organized in three phases. In the first place, more than 180 scientific articles on framing and political communication published in the last decade (2011–2021) were located in Google Scholar, while understanding this period as a new stage of development of the specialty in the context of social media. In a second phase, a final sample of 78 articles was selected applying criteria of quality and scientific relevance: only works published in journals indexed in the two academic reference databases, Web of Science (WoS) and Scopus (preferably in quartiles Q1 and Q2) were finally included; and, likewise, its impact on the specialty measured in the number of appointments was taken into account. All bibliographic consultations have been carried out individually between June and September 2021.

In a third phase, this strategic sample of articles was classified into two time periods: start of digital political communication studies, especially Twitter (2011–2015); and research on new networks (2015–2021). Finally, the texts have been analysed in depth, taking into account two thematic variables: first, distinguishing between theoretical work, state of the art, and applied studies; and later, according to its object of study, media framing, specific works on social media, comparative studies on media hybridization, and experimental studies on framing effects.

3. Success and Limitations of Framing Studies in Political Communication

Framing theory has experienced intense application in recent decades to become one of the most active and relevant research areas in communication (Matthes 2009; Borah 2011; Cacciatore et al. 2016). Since its origin in the field of sociology, and with a significant connection with disciplines such as psychology, behavioural economics, or political science (D'Angelo 2002; Brugman and Burgers 2018), the study on the concept of "frame" has found the most favourable field for its development in the 21st century in political communication (Brugman et al. 2017). In particular, this approach can analyse the connections amongst the media process, the political debate, and the social definition of meanings (Matthes 2012; López-Rabadán and Vicente-Mariño 2013) while explaining the public opinion formation process. All these factors have positioned it as one of the predominant perspectives in the field (Muñiz 2020).

On the other hand, there is significant data on its level of activity and impact in the field (Weaver 2007). In 2004, several authors placed Framing Theory as a significant theory of the second half of the 20th century, occupying the first place in references from the period 2001–2004, well ahead of perspectives such as the agenda-setting, the theory of uses and rewards, or the theory of selective exposure (Bryant and Miron 2004). In the following decade, this high level of activity intensified (Borah 2011), reaching theoretical and operational improvements, high empirical applicability, and a constant presence in the journals with the greatest impact (Saperas and Carrasco-Campos 2015).

However, interest and research success of framing studies in recent decades has emerged with frequent criticisms of its conceptual and operational inconsistency (De Vreese 2005; Ballesteros-Herencia and Gómez-García 2020). In consequence, its intense and imprecise application has ended up generating saturation problems in the field (D'Angelo et al. 2019). Next, the main arguments of interest and the limitations of this theory are specified, which, paradoxically, are closely related.

3.1. Reasons for a Research Success

There are at least five arguments to explain the success of framing studies in political communication. First, it deals in-depth with a significant communication process in democratic societies. This theory offers a very effective metaphor to explain how political information is produced and transmitted to citizens (Muñiz 2020). While the idea of agenda

synthesizes thematic priorities ("the what"), the concept of "frame" has been defined, to a large extent, as the form of strategic presentation of events through informative or political messages ("the how"). It does so through two mechanisms: emphasizing or excluding possible aspects of reality (De Vreese 2005) and developing certain discussion functions (Entman 1993).

On the other hand, its success is also explained by its global but well-segmented view on the communication process (Entman et al. 2009). The Framing Theory is defined by its ability to explain the mediation process of political reality, both in a panoramic way and in-depth in the parts that make it up (Matthes 2012; Hänggli and Kriesi 2012). In this sense, it connects three relevant fields: the strategic production of content, the characteristics of the message and, finally, its individual, social, or cultural impact (De Vreese and Lecheler 2012).

This theoretical breadth comes from its multidisciplinary origin. The original concept of "frame", understood as meaningful schemes that give meaning to the social world is located between the sociological and the psychological, landing in very different ways in communication studies (D'Angelo 2018). The classic communicative definitions (Entman 1993; Scheufele 1999) locate the frame in four points of the communicative process: sender (mind of strategists), message (texts), receiver (mind of citizens), and finally, culture (shared mindsets). This way, the message construction process goes beyond the journalistic work itself while the frames can be four things at the same time: a psychological process, a professional organization process, a final product, and a political strategy tool (Entman et al. 2009).

Third, it stands out for its realism in its investigative application. Although defined as a multidisciplinary paradigm while potentially allowing a comprehensive analysis of the entire communication process (D'Angelo 2012; Matthes 2012), its actual development has focused on studying its most significant parts. Specifically, it is a certified key tool for the strategic analysis of the journalistic message (Borah 2011; López-Rabadán and Casero-Ripolles 2014). However, the experimental study of the media effects on individuals has been approached in a more specific way (Cacciatore et al. 2016; Brugman and Burgers 2018).

The methodological flexibility shown by framing studies is also significant when analysing all kinds of issues: from specific subjects such as electoral campaigns or the image of a leader (Sahly et al. 2019; Louie and Viladrich 2021) to long-term problems such as climate change, social protest, the refugee crisis, or cases of sexual harassment (Lück et al. 2018; Ahmed et al. 2019; Starkey et al. 2019), from very different techniques and designs. In general, framing studies are characterised by proposing a great diversity of models of content analysis of the informative or political message (Matthes and Kohring 2008), while surveys and experimental designs have had less application up to a few years (Brugman and Burgers 2018; Banks et al. 2021).

Finally, it is relevant to highlight its ability to adapt to the digital context. As a consequence of its conceptual extent and its operational flexibility, framing studies have almost directly incorporated the political use of social networks into their research project (Chadwick et al. 2018; D'Angelo et al. 2019). The strategic management of Twitter, the interaction between the media and the public (Manor and Crilley 2018; Hopke and Hestres 2018), and finally, the attitudinal effects it generates (Wicke and Bolognesi 2020), have become relevant objects of study and a dynamic factor in the field.

3.2. Limitations for Its Scientific Study

However, the popularity of the concept of framing has landed with a notable inconsistency in its application (De Vreese 2005). Its multidisciplinary origin, though useful in development, has generated notable problems of theoretical imprecision (D'Angelo 2002; Miceviciute 2013). In perspective, this theory has been a blessing and a curse for communicative research (Borah 2011). To a large extent, it has become a powerful explanatory metaphor that hides a complicated conceptual and operational definition.

Paradoxically, despite its investigative use for decades, uncertainty remains about what precisely constitutes a frame and how the framing process is articulated (Lecheler and De Vreese 2016). This lack of theoretical consensus has been denounced as a problematic issue (Matthes 2009; De Vreese and Lecheler 2012). Definitions of frames are usually scarce and very general in explaining "what they are". For example, some speak of "principles of selection, emphasis and presentation" (Gitlin 1980) without actually defining them. Moreover, the more specific definitions focus on "what they do". This is the case of the four framing functions proposed by Entman (1993). Consequently, it has been impossible for a long time to reach definitions and a conceptual consensus shared by the entire research community (Carragee and Roefs 2004; Vliegenthart and Van Zoonen 2011).

This situation is explained by the persistence of two contradictory trends (Saperas and Carrasco-Campos 2015). First, this lax conceptual framework favours high applicability to all kinds of approaches, topics, and research fields: from the quantitative and qualitative, the empirical and interpretive, the psychological and sociological, and, finally, the academic and professional. Likewise, this ambiguity has created a very dispersed line of research, lacking consensus on its central concepts and operational mechanisms. After almost three decades, the "fractured paradigm" situation denounced by Robert Entman (1993) remains, since framing studies continue to lack a unified theory regarding how frames are constructed, represented, and how they are influential (Entman et al. 2009). To a large extent, framing studies have been victims of their applicability and research success (D'Angelo and Kuypers 2010).

This has resulted in a lack of theoretical consensus generating an enormous methodological dispersion when identifying and measuring media frames, parties, and among citizens (Matthes and Kohring 2008; Ardévol-Abreu 2015). Based on imprecise methodological criteria, the operational diversity has been enormous. Almost every author defines and operationalizes frames in general, different, or even divergent ways (Matthes 2009). This situation has generated significant reliability and validity problems and has prevented the scientific standardization of the field (Van-Gorp 2010; López-Rabadán and Vicente-Mariño 2013).

Another derived methodological problem is the commitment to research based on typologies of specific frameworks (Matthes 2009). This type of work ends up being very descriptive and prevents the formulation of hypotheses and comparative studies that advance the theoretical basis of the field. The predominance of research based on specific frames has been "grouping" unconnected empirical data, instead of "fitting" the results within a shared theoretical base (D'Angelo 2012).

Finally, it is relevant to indicate the problems generated by the excessive segmentation of framing studies (Miceviciute 2013; Brugman and Burgers 2018). On the one hand, research on framing has not considered the sociological basis on news production raised by Tuchman (1978) or Gitlin (1980). This disconnection between the journalistic and social frame has reduced the depth and critical look of the field. Thus, the idea of power is absent in most current approaches, and it is not proposed to investigate the responsibility of certain settings or their social or political consequences (Vliegenthart and Van Zoonen 2011; Ardévol-Abreu 2015). On the other hand, the separation between the journalistic frame and the psychological scheme has also reduced profundity in defining its effects at different levels.

Concerning the field fragmentation, different authors have criticized the excessive prominence of the analysis of the journalistic message (Hänggli and Kriesi 2012; Valera-Ordaz 2016; Muñiz 2020). Beyond its results, this "mediacentric" approach to framing studies has consolidated a reductionist and partially problematic pattern. On the one hand, it obviates the sociological dimension of the process and limits its critical capacity. On the other hand, it has slowed down further development of the analysis of the frame of other types of actors (parties, social movements, or audiences) and the experimental study of its effects (Borah 2011; Powell et al. 2019).

4. Opening of a New Stage in Framing Studies: Consolidation and Digitization

Despite the limitations discussed, the evolution of framing studies is one of the main contributions of communicative research in recent decades. Within a dynamic of progressive theoretical and methodological improvement, it is possible to identify a constant line of work since the 1970s, and divide it into three major stages (Vicente-Mariño and López-Rabadán 2009; Ardévol-Abreu 2015): first, an initial phase of landing from other disciplines (1974–1993); second, a period of definition and search for one's own space against other perspectives (1993–2007); and third, a stage of empirical development which endeavours to a reorganization that continues to the present day.

4.1. Evolution in Three Stages

Framing studies have their origin in two concepts from other disciplines: Bateson's psychological frames (Bateson 1972) and the definition of the frame as a basic sociocognitive mechanism established by Goffman (1974) from micro-sociology.

This interdisciplinary starting point has allowed for flexible application in different fields (López-Rabadán and Vicente-Mariño 2013). Among others, its pioneering use in studies of journalistic production as an organizational and interpretive framework of news stands out (Tuchman 1978; Gans 2004; Gitlin 1980), but also in psychology (Kahneman and Tversky 1984), or the study of social movements (Snow and Benford 1988). After this landing phase, the following decade is characterized by the appearance of specific works that combine theoretical reflections on media framing with the empirical analysis of news discourse (Gamson and Modigliani 1989; Iyengar 1991; Gamson 1992).

From the definition of Robert M. Entman, a second stage opens in the evolution of media framing studies. This work is key to defining two questions. On the one hand, he defines it as a "fractured paradigm" and places it together with other theories, such as priming, which review and reinterpret the effects of agenda-setting. On the other, he establishes the key points of the field (Entman 1993, p. 52):

- He defines the framing process as a strategic action that develops four discursive functions (definition of the problem, attribution of causality, moral judgment and treatment recommendation);
- And he places it at four points throughout the communication process (emitter, text, receiver, and culture).

Despite this attempt at coordination, this second stage is characterized by a growing empirical application, ambiguous in many cases, and an intense theoretical and operational debate against other perspectives. On the one hand, they link their development to the analysis of journalistic treatment ("informative how") as a step beyond the journalistic selection ("informative what") that the agenda-setting theory represents (Semetko and Valkenburg 2000). On the other hand, the lack of a solid theoretical base generates a notable imprecision and the fragmentation of the field in different domains. Only after the appearance of reference works (Scheufele 1999, 2000; D'Angelo 2002) does the field begin to clarify its conceptual and operational basis. Above all, this underlines its independence and complementarity with the tradition of the agenda-setting (Reese et al. 2001; Carragee and Roefs 2004; De Vreese 2005).

From that moment onwards, the third stage of consolidation began (2007–), characterized by the recognition of its scientific autonomy, the enormous commented empirical applicability, and the opening of a methodological debate to increase research precision and quality (Matthes and Kohring 2008; Saperas and Carrasco-Campos 2015). The key moment in this stage was the publication of a monographic volume of the Journal of Communication that represents the definitive consolidation of the field (Scheufele and Tewksbury 2007).

4.2. A Fourth Stage of (Re)organization and Digital Advancement

In the middle of the last decade (2015–), a new stage emerged. It is distinguished by a broader theoretical and methodological coordination and, above all, the reorientation of the research agenda (Scheufele and Iyengar 2017). Among the new priorities, the following

stand out: (1) the integration of social networks as an object of study; (2) the commitment to the study of effects; and (3) the adoption of a more global perspective when exploring digital dynamics, both in the selection of topics and the adoption of a more comparative and international perspective (Knüpfer and Entman 2018).

Coinciding with the generalization of the political and journalistic use of social media, a series of operational consensuses begin to consolidate key in the organization of the field (Matthes 2012; Entman and Usher 2018). In this new digital context, framing studies have been presented as an increasingly precise tool to analyse phenomena such as political (self) communication, digital activism, and the dynamics of hybridization of new and old media (Hamdy and Gomaa 2012; Qin 2015; Nee and Maio 2019), or the advance of the spectacularization and populist style in the political message (Araújo and Prior 2021).

5. Consensus under Construction: Current Keys in Framing Studies

The transversality of framing studies in parallel to the development of research on social media and journalism (Segado-Boj 2020) has generated an intense debate to try to organize its development in the digital context (Borah 2011; López-Rabadán and Vicente-Mariño 2013; Saperas and Carrasco-Campos 2015; Muñiz 2020). As a result, it is possible to identify a growing consensus on several key aspects that mark a certain research pattern in the specialty for the future: general definition, concept of frame, organization of studies, and analytical model.

5.1. Plural Definition as a Research Program

From the experience of the last decades, and assuming the lack of a single concept that provides global coherence (Entman 1993), framing studies are currently considered a plural research project assuming its limitations and attempt to take advantage of its theoretical and researcher diversity (Muñiz 2020). Given its multidisciplinary nature and its objective of global analysis, many experts consider that it is neither possible nor desirable that these studies constitute a single paradigm (D'Angelo 2002, 2012; Matthes 2009, 2012) while defining framing theory as a research program that serves as a meeting point for:

- Paradigms such as the cognitive, the constructionist, and the critical;
- To quantitative and qualitative methods;
- To diverse epistemological approaches, from the sociological to the psychological;
- To empirical and interpretive approaches;
- Innovation in the academic and professional field.

5.2. Application of a Dual Concept of Frame

From this integrative general vision, the frame concept is defined by the connection and complementarity of its two dimensions: the sociological and the psychological (Muñiz 2020). After several phases of a certain reductionism, current studies find it essential to delve into the dual condition of the concept and integrate it into a shared theoretical base (Vliegenthart and Van Zoonen 2011). Each frame is defined as a shared social convention, which at a professional level is outlined in rules (journalistic practices, for example), as well as at a discourse level, in the use of symbols, images, or keywords (strategic orientation of the journalistic message) (Tankard 2001). However, at the same time, the frame concept presents a powerful psychological dimension understood as a cognitive structure that determines the individual interpretation of the message and its possible attitudinal effects (Scheufele and Iyengar 2017). A realistic and current definition of the concept must always include both dimensions and combine them in the analysis of political and mediatic phenomena.

5.3. Organization on the Study of Three Processes

Despite the possibility of conducting global studies, those studies centred on analysing the parts in the context of framing research predominate (De Vreese 2012). Among the few cases of comprehensive research, several studies that measure the media treatment of

European elections and connect it with effects on audience attitudes through surveys stand out (De Vreese 2003; Matthes 2012).

Within the enormous diversity of these studies, it is possible to identify three large specific fields of study (D'Angelo 2002; Muñiz 2020): construction of frames, which reviews the strategic organization of the issuer (frame building); definition of frames, which studies their presence in messages (news or political framing); and effects of frames on the public and culture (framing effects). Next, several shared keys about their uneven research development are specified.

Undoubtedly, *frame building* is the field with the least empirical development. Likewise, it is key to delving into a more sociological and professional vision of the framing process. This field offers the possibility of going beyond mere discourse, delving into determining factors while analysing the power relations between media and political actors from a critical point of view. From this perspective, the media is a central actor in the framing process, but not the only one. Furthermore, the dynamics of framing are defined as a struggle for the meaning of political events between different actors who have unequal material and symbolic resources (Vliegenthart and Van Zoonen 2011; Hänggli 2012).

The main object of this field is the professional norms and dynamics that determine the proposal, promotion, and consumption of frames at the social level. Identifying two types of factors that influence the work of the media are amongst its advances (Hänggli 2012; Hänggli and Kriesi 2010). On the one hand, the factors internal to the organization are those norms that simplify routines and help standardize the development of the journalistic product. This type of professional organization frame can occur at an individual or collective level, even arriving to develop stable strategic approaches (López-Rabadán 2010). Its most appropriate technique is conducting in-depth interviews. On the other, certain factors external to the environment are decisive in the creation of media frames; mainly, the influence capacity of political actors, businessmen, and pressure groups. Direct identification is complicated, and its indirect study is based on a content analysis that allows measuring correlations between the framing of press releases and the final content in the media.

News framing addresses the journalistic message as the central concept of the theory. Furthermore, its intense research activity has determined the evolution of the field since the 1990s (Matthes 2009; Saperas and Carrasco-Campos 2015). However, the arrival of social networks has broadened its focus of analysis to other fields such as the political, activist, and citizen message (Snow et al. 2018). At an operational level, content analysis stands out as the main technique (Matthes 2009). Moreover, it is mainly applied as an inductive approach trying to systematize the identification of news frames from very different typologies (De Vreese 2005; Brugman and Burgers 2018). Among them, the use of more specific "thematic frames" predominates, compared to the "generic" ones such as conflict, attribution of responsibility, episodic, or human interest (Lecheler and De Vreese 2016; Brugman et al. 2017). Within the diversity of existing textual analysis models (Matthes and Kohring 2008), the most frequent is the "holistic manual". Mixed in nature, it is based on the qualitative detection of frames in key content and its subsequent quantitative measurement in larger samples. The "computer-aided" or "deductive" models have been presented as interesting add-ons, still under development. While other qualitatively based models such as the "hermeneutic" or the "linguistic" have had less application.

Framing effects addresses the final result of the theory and is specified in an object of enormous social relevance: the influence of the informative and political message on citizens (Scheufele 1999; D'Angelo 2018). The study of framing effects implies the empirical connection of two phenomena: identifying frames in the messages from the news (independent variable), and the subsequent location of some type of sociocognitive or attitudinal effect on the audience (dependent variable). The study of effects has been present since the sociological start of the field (Goffman 1974) and its development in communication (Scheufele 2000). In political communication, they have become a frequent approach (De Vreese and Lecheler 2012) based on the premise that subtle changes in the

way of presenting the message (the informative how) can generate relevant changes in the attitudes of the citizens (Lakoff 2004; Weaver 2007; Vicente-Mariño and López-Rabadán 2009).

Regarding its development, the framing effect is understood as a process of cognitive channelling in three steps (Scheufele 2004; Matthes 2012):

- First, it goes from the cognitive impact of the media and/or political message to the audience's thinking;
- Second, it is established as an individual mental scheme that will be used for several purposes: to think about a topic while building opinions about it;
- Ultimately, to trigger behavioural changes.

Therefore, frames become mechanisms that generate effects at the attitudinal and conative level, determining what people think about key aspects of the political agenda (De Vreese 2005; D'Angelo 2018). In the last decade, theoretical developments and the improvement of experimental designs as the main technique have resulted in a significant rise in the empirical study of framing effects (Muñiz 2020).

5.4. Approach to a Comprehensive Analytical Model

Both the complexity of the framing process and the interpretative nature of the frames in the context of the informative or political message have complicated the scientific study of frames. Frames are latent structures, and their identification is obtained from indirect indications in the message (arguments or keywords) or expert testimonies that express their perceptions in this regard. Moreover, they are not exclusive. In the same content, several frames of different intensities can coexist. These factors have complicated the application of standardized and rigorous techniques (Van-Gorp 2010). However, the evolution of the field has also generated a series of conventions that guide, to a large extent, the analysis of frames in political communication (Matthes and Kohring 2008; López-Rabadán and Vicente-Mariño 2013; Tewksbury and Riles 2018).

Regarding the analysis of the message, five main conventions are pointed out:

- To place the research focus on two processes: thematic selection and discursive organization, as key professional actions in the informative setting;
- Seek the methodological balance, betting on designs that combine quantitative content analysis of the message, together with the complementary use of qualitative techniques, such as observation or interviews, that confirm or qualify the detected patterns;
- Bet on longitudinal analysis samples that allow identifying stable discursive patterns in the medium term;
- Whenever possible, opt for an inductive approach that builds analysis categories, validate them from previous farms and, finally, measure them in the final sample. It is a more complex approach but offers more interesting results than the deductive approach. Frame mapping techniques that automate the study of the presence or absence of keywords are relevant inductive examples (Matthes and Kohring 2008);
- Depending on the objective, to take advantage of the entire tradition of existing generic and specific typologies (Semetko and Valkenburg 2000; De Vreese 2005) to improve the proposal of their analysis models and try to be integrated into a debate of broader results.

Regarding the analysis of effects, two main conventions are indicated (Muñiz 2020):

- To reorganize the experimental studies based on the use of more realistic informative materials. Instead of using artificial samples as a stimulus, it is recommended to obtain the samples beforehand by identifying the news frames through an analysis of real content (Scheufele 2004);
- To increase the external validity of the experiments, a more realistic exposure to the materials is proposed (Lecheler and De Vreese 2016). In particular, to repeat the exposure of the same frames several times or to carry out the simultaneous exposure of several contradictory frames is recommended.

6. Triple Impact of Social Media on Framing Research

The advent of social media has transformed the research map of framing studies in two directions. On the one hand, it has propelled the renew of its objectives, improving its investigative techniques (D'Angelo 2018; Entman and Usher 2018). On the other hand, it has reoriented and digitized its research agenda towards a more balanced distribution of content between the study of media, political, and citizen settings (Scheufele and Iyengar 2017). A third relevant consequence involves the improvement and the intense empirical development of the studies of the effects addressed in the final section of the text.

6.1. Methodological Advances

In the first place, there are improvements in the operationalization of the frames. More precise keys are gradually offered to identify frames in the texts. Furthermore, organization and argumentation mechanisms are deepened, such as, for example, the metaphor, the hyperbole, and the irony (Burgers et al. 2016).

On the other hand, innovative designs for the study of social media are identified; particularly, comparative models that connect the massive analysis of digital content (for example, publication of news on Twitter) with the conduct of surveys on contemporary phenomena, such as dynamics of increasing selective exposure (Aruguete and Calvo 2018), or the predisposition towards misinformation (Chadwick et al. 2018).

Improvements are also detected when applying the frame mapping technique (Matthes and Kohring 2008) to the study of digital objects. This is the case of the detection of political frames on Facebook (Ballesteros-Herencia and Gómez-García 2020), or the review of mixed content and visual-text about the refugee crisis on Instagram (Radojevic et al. 2020).

Finally, it is relevant to point out the use of big data techniques in analysing massive samples of political content on networks. Two examples of this are, on the one hand, the identification of frames on the refugee crisis of 2015 from a massive analysis of 7.5 million tweets collected through hashtags (Siapera et al. 2018) or from the interactions in networks between media and citizens (Pöyhtäri et al. 2021), and, on the other hand, the media frame of demonstrations and social protests during the presidency of Trump (Ophir et al. 2021).

6.2. Reorientation of the Research Agenda

In this fourth stage of evolution, framing studies maintain intense activity while presenting a more complete and balanced research agenda. Hence, this activity has been classified into three categories according to their main study object: analysis of the media, the political frame, and the hybridization between new and traditional media.

6.2.1. Innovative Trends on Media Frames

To a large extent, the traditional analysis model (coverage of a current issue in the reference press) maintains its predominance, though innovative trends in this field of research are also detected.

In the first place, key concepts and phenomena in current political communication are introduced as an object of study. Three relevant examples would be the presence of populism in the media during Bolsonaro's ascent to power in Brazil (Araújo and Prior 2021), or the personalization of politics during Trump's term (Ophir et al. 2021), or the xenophobic attack on the gypsy community by Minister Matteo Salvini in Italy (Cervi and Tejedor 2020), and, from another perspective, new dynamics such as the irruption of comedians to the TV prime time (Ödmark 2021).

A second trend is the analysis of increasingly global issues. These are medium-term social problems and not current affairs. Among these issues is climate change, which is allowing the development of comparative studies between countries (Lück et al. 2018) or long-term ones over time (Stecula and Merkley 2019). Other equally relevant issues are, first, the construction of the Euro crisis in five EU countries (Joris et al. 2018); second, the definition of sexual harassment uncovered in the #MeToo campaign in four different

national contexts (Starkey et al. 2019); third, the degree of informative independence in the coverage of the Covid-19 pandemic (Milutinović 2021).

In this new stage, there is a growing interest in studying the visual frame. Given the generalization of digital journalism and networks, the study of the journalistic text is insufficient since the roles of photo and video gain weight when reviewing media frames. In this sense, those works that address the definition of negative visual frames about refugees or migrants (Amores et al. 2020) and the framing of war conflicts such as Ukraine on television in Russia and Germany stand out (Lichtenstein et al. 2019).

6.2.2. Development of Social Media as Object of Study

In this new stage, the analysis of the political management of networks becomes an autonomous and relevant object of study in framing studies. After Twitter, social media have expanded their presence in the research agenda, incorporating Facebook and Instagram while organising the study of these platforms on a series of significant trends.

The first is that the political framing analysis in networks reproduces a very similar approach to that of the media, namely, the selection of relevant cases and the search for consolidated strategies in the accounts of a leader or party. A very recurring example is the case of President Trump's social networks, highlighting here an innovative work that connects him with the construction of a frame of white supremacy (Louie and Viladrich 2021), organized around a triad of functions ("divide, divert and conquer").

Likewise, there are new works that analyse the Twitter strategy of certain international institutions. One example is the Israeli Ministry of Foreign Affairs during the 2014 Gaza War (Manor and Crilley 2018) in an extension of the theory of digital diplomacy framing during war conflicts. Another example is the competitive use of networks between parties, from differentiating themselves on Facebook in the 2019 Spanish electoral campaign (Ballesteros-Herencia and Gómez-García 2020) to the attacks on Twitter against the candidate Hillary Clinton through negative memes (Nee and Maio 2019).

The second trend is newer and is related to expanding the studies towards social movement strategies or citizens' debates in social media (Snow et al. 2018). There are significant examples of this. First, the work on the framing of climate change by the environmental movement, in particular the comparison of content on Facebook produced by 289 NGOs in 18 countries (Vu et al. 2021); second, the digital debate on highly relevant issues, such as the appearance of anti-immigration political rhetoric on Facebook (Nortio et al. 2021); and third, the conceptualization of the Covid pandemic as a war conflict on Twitter (Wicke and Bolognesi 2020). However, unquestionably, the issue that has attracted the most attention in recent years has been the construction of citizen frameworks around the Syrian refugee crisis of 2015, both the emergence of negative frameworks with a populist base on Twitter (Siapera et al. 2018) and the dissemination of humanitarian-based visual frames on Instagram (Radojevic et al. 2020).

6.2.3. Framing Analysis on Media Hybridization

The interaction between social media and traditional media has become, perhaps, the most relevant research area of this new stage of framing studies. The construction of frames within the hybrid media system, and the study of its consequences, has generated intense research activity in recent years and offers innovative aspects in its techniques and results (Tewksbury and Riles 2018). Regarding content, it is possible to identify two main lines of work: on the one hand, comparative studies of coverage; on the other, the analysis of the consequences of sharing content.

The most active and relevant comparison has been between media coverage and its replication on social media. Since the "Egyptian spring" of 2011, we have found pioneering works that explore the differences between traditional press framing and Twitter. The networks are a place of greater freedom and interaction in times of political crisis (Hamdy and Gomaa 2012). The different characterization of controversial characters such as Edward

Snowden is also relevant since he was portrayed as a hero in the networks and a traitor in the North American media (Qin 2015).

Today, this first line continues offering interesting results on the digital treatment of global issues. Sometimes, these results are very different from those of the reference media. Climate change (Hopke and Hestres 2018) or the "refugee crisis" of 2015 (Pöyhtäri et al. 2021) are clear examples of this. In both cases, there are powerful visual frames and similar polarization strategies. Another global issue addressed in recent years is the differences between the new media and the press in treating political protests. Recent research shows that factors such as the type of protest (peaceful or violent), the place (own country or abroad), and the type of media are relevant factors that connect or not with the "protest paradigm" that demonizes protesters and marginalizes their causes (Harlow et al. 2020). In any case, citizen debates on Twitter are always perceived as a space of greater freedom and internationalization than the traditional media (Ahmed et al. 2019).

A secondary line of work is the one that explores the consequences of sharing news on networks, understood as an individual framing mechanism of the news reality (Aruguete and Calvo 2018). As network users select or discard content, they highlight facets of events or issues to promote a particular interpretation, especially on key issues such as social protests and their different treatment at a domestic or international level (Kilgo et al. 2018). Within the hybrid media context, a step further is to try to connect, through surveys, the common practice of sharing sensational news on networks, with a greater predisposition to disinformation and democratically dysfunctional behaviours (Chadwick et al. 2018).

7. Development of Experimentality in Framing Effects Studies

In this fourth stage, there are advances and increasing activity in the study of effects and the application of experimental models (Muñiz 2020). Parallel to the appearance of several review-works in this field (Cacciatore et al. 2016; Lecheler and De Vreese 2019; D'Angelo 2018), the publication of experimental studies has increased, reaching 300 (Brugman and Burgers 2018). Next, the main advances in the theoretical debate on effects are synthesized and a review of the most relevant research areas is offered.

7.1. Conceptual and Operational Classification

At the conceptual level, the proposal by Cacciatore et al. (2016) stands out to reorganize the theoretical basis of effects studies based on a series of principles that are somewhat ground-breaking with the previous tradition.

- On the one hand, they link the effect of framing to its sociological definition while selecting a set of facts or arguments about a fact ("the what") and differentiate it from their psychological notion. Finally, there is a presentation of two equivalent ideas about a theme ("the how");
- Therefore, they define the framing effect as an applicability process. There is a connection with previous mental schemes invoked by the media message. This helps to process the information in a certain way (Scheufele 2004).

This definition takes away the idea of "accessibility" as exposure to certain content, which characterizes the agenda-setting theory and the definition of framing by Entman (1993).

At the operational level, several trends are detected. On the one hand, analysis protocol is established with practical instructions on the design and application of experimental studies (Lecheler and De Vreese 2019). On the other hand, there are objects of study typical of the current hybrid context, such as the effects generated in the interaction between new media and journalism, the growing influence of media frames that combine visual and verbal content, or the comparative and international-scale design approach (D'Angelo 2018). Given the current challenge of increasing the realism and external validity of the experiments, a current of "experimental realism" is gaining ground. This line proposes moving beyond the laboratory to work with informative materials. Furthermore, it involves

more realistic content consumption measurements, thus allowing a better understanding of the framing effect (Muñiz 2020).

Finally, time becomes crucial to explain in detail the framing effect while deepening its study. Thus, recent works identify two speeds of information processing: fast, automatic, and emotional on the one hand; slow, controlled, and rational, on the other. Furthermore, these works consider time a primary variable in the establishment of effects (Powell et al. 2019). Moreover, a growing number of experimental studies are investigating the duration of the effects of news framing. Most experts suggest that the effects persist beyond the initial exposure while possibly influencing subsequent decision-making. However, this debate is still open as other factors intervene, such as exposure to competitive or emotional frameworks (Lecheler and De Vreese 2016).

7.2. Increased Experimental Activity

In this phase, there is regular and innovative empirical activity in the context of research on framing effects (Lecheler and De Vreese 2019). Although not very standardized, a large number of experiments are carried out that connect the selective exposure to frames with the appearance of politically-based effects (Wu 2018).

Among the effects, one of the most outstanding is the increase in political engagement of citizens, especially in the context of the electoral campaign as a decisive moment in current political communication. Based on "experimental realism" designs, a recent work links thematic or strategic settings of the media with opinion measurements and changes in the level of citizen engagement in networks during the 2018 Mexican campaign (Muñiz and Echeverría 2020). On electoral engagement, there is a relevant study that connects the frameworks proposed by two candidates (Trump and Clinton) on two different platforms (Twitter and Facebook) during the 2016 presidential elections, with different levels of audience participation on each platform. The content analysed goes from "likes" or "retweets" to more elaborate comments (Sahly et al. 2019).

Another analysed phenomenon from this view is the rise of political polarization. Different studies have addressed it using different approaches, from experiments that connect exposure to polarizing tweets about candidates and parties to surveys that evaluate significant changes. In this sense, two events stand out: first, the case of a triple experiment on generic frames and negative messages in the North American presidential elections stands out (Banks et al. 2021). Second, an experiment based on surveys on the consumption of social networks and the increase in partisan radicalization in Brazil during the first months of the COVID-19 pandemic (Calvo and Ventura 2021). From a similar perspective, recent studies detect effects in the debate on gun control in the US. While emotional content exacerbates prejudices, news from a neutral frame generates reflection and a possible change of opinion among different audiences (Wu 2018).

The third group of relevant experiments connects the consumption of certain digital frames with the increase in social rejection of minorities, especially immigrants and refugees. In this sense, the work of Lecheler et al. (2015) stands out. In this study, the social influence of certain positive (emancipation and multiculturalism) or negative (assimilation or victimization) frameworks on immigration is measured. After the exposure to framing and conducting surveys, the conclusion is that positive emotions operate as mediators of more powerful framing effects.

Regarding the influence of the visual frame, there are exploratory results of two studies that stand out. While an experiment shows that informational videos on the European refugee crisis do not produce more powerful opinion shifts than news texts (Powell et al. 2018), another study detects interesting trends in the effect of photographs on immigrants in the US media. Through different experiments, Parrott et al. (2019) conclude that human interest frames increase positive emotions, enhancing positive attitudes about the group. Furthermore, political frameworks increase negative emotions and ultimately lead to negative attitudes.

Other relevant areas of experimentation, but less constant so far, have been those that affect changes in the evaluation of candidates and the intention to vote (Von Sikorski and Knoll 2019) or those that measure the impact on citizens' attitudes of disinformation strategies. This is the case of conspiracy theories about the origins of COVID-19 (Bolsen et al. 2020). Finally, another 100% hybrid line of research is the one that reviews the effects derived from sharing news on social media. In this sense, important experiments indicate a rise of racial identity issues from a selective exchange of content on Twitter (Bigman et al. 2019). Another experiment shows how morality frameworks increase the exchange of news on Twitter and Facebook while those that involve conflict reduce the exchange (Valenzuela et al. 2017).

8. Conclusions

According to the research objectives, it is possible to synthesize some conclusive ideas about the current moment of framing studies and pose various challenges regarding their development in the medium term. On the one hand, its intense research activity in the last decade returns a reasonably positive diagnosis regarding its evolution. In this sense, significant progress has been observed in some of its "classic" challenges, such as the need for greater theoretical clarity, operational precision, and a global study of the process (Borah 2011; López-Rabadán and Vicente-Mariño 2013; Saperas and Carrasco-Campos 2015). In recent years, the academy has chosen not to exaggerate its theoretical and operational weaknesses and to try to improve specific aspects of the study of frames in the hybrid context (D'Angelo et al. 2019).

Throughout the text, advances such as the construction of certain theoretical consensuses and a better definition of key concepts have been highlighted. For example, the link between the idea of framing and the deep meaning of the message, and for its analysis to propose a complementary vision that takes into account both the frames based on selection and "emphasis" (common in journalism) and those of interpretive "equivalence" (less frequent). Likewise, it is committed to staying the course as a research program that integrates and takes advantage of different approaches instead of seeking uniformity. After several decades of evolution, there is consensus in accepting the complexity of the concept of framing and understanding operational diversity as a value that allows for the deepening of its study.

On the other hand, the diversification of its research agenda is clear. Although political journalism remains the main area, social media have generated a significant reorientation of its objectives. First, a global vision of the framing process has been imposed that better contextualizes it within the journalistic and political dynamics. Second, although the media and parties are the main sources of the process, the research focus already includes the strategies of social movements and the interpretation of the audience. Third, the hybridization between media and political settings is posed as a growing area of research. Likewise, a certain methodological standardization is detected, both in the operational identification of frames in the message and in the study of effects. Greater analytical precision is observed on the processes of selection and discursive organization and a more realistic approach to effects analysis from experimental designs.

Challenges and Future Approaches

Despite the advances indicated, the framing studies still present an important margin of theoretical and methodological development (Muñiz 2020) and, above all, a better adaptation to the dominant hybrid context in current political communication (Qin 2015; Entman and Usher 2018). In this sense, there are several future challenges that serve as continuity to the objectives of this work.

- Comprehensive approach to the process. Although the concept of frame allows it, there are still few works that study the framing process as a whole, from the production of the message to the effects. An in-depth study of media and political frames needs to

take into account both the professional context where they are built and the society where they are interpreted and disseminated;

- Balanced methodological designs. As it occurs latently, the study of the frame requires sophisticated techniques for its detection and measurement. Given the limitations offered by content analysis, it is recommended to advance in inductive approaches that combine a quantitative base with a qualitative refinement. Although more complex, this approach is more rigorous and realistic. Beyond the use of big data techniques, it is recommended to always provide examples that clarify and contextualize the categories and their interpretation (D'Angelo et al. 2019). On the other hand, in the current context, the study of the frame demands increasingly complete comparative and longitudinal perspectives. Regarding the study of effects, "experimental realism" opens an interesting way for methodological improvement;

- Expansion of the research agenda towards the study of the visual frame. Photographs and videos are key content of digital journalism and social media. The very idea of framing contains a powerful explanatory metaphor and in the current context, its investigative interest has increased. Although relevant work has already been observed, it is a field of enormous potential. However, its study requires specific methodological improvements that take into account the framing power and uniqueness of the image and its combination with the text;

- Analysis of new factors in the hybrid context. Among the consequences of the hybrid media system is the appearance of new factors that influence the framing process (Entman and Usher 2018; Knüpfer and Entman 2018). Standing out among them is the role of platforms that are almost monopolistic, such as Google or Facebook, which can determine access to political information and its interpretation. Furthermore, the power of algorithms and strategic technologies (such as digital analytics) that can be used to monitor online debates, refine communications, and quantify opinion and political engagement. For its part, it also highlights the influence exerted by new digital actors that subvert the traditional dynamics of political communication. Among them stand out "ideological media" that are committed to orienting their message towards the polarization of the public sphere. Furthermore, "rogue actors", such as hackers and disinformation platforms, who are disrupting the classic news ecosystem. Integrating all these factors is key to understanding the competition between frames and its political consequences in the future;

- Go beyond the message, delve into the consequences. Starting from a more determined sociological approach, the critical study of the political effects of framing can become an interesting field of research in current political communication and, in this way, review in detail how networks and media hybridization are altering the process of the construction of public debate (Entman and Usher 2018). In this way, it can delve into relevant phenomena such as the fragmentation of the media system, the increase in transnational information flows, or the growing control of information by economic and political elites and analyze others in expansion such as the ability of new actors to manipulate media messages and distort the functioning of the democratic system without forgetting the role of traditional journalism in full transformation, with its limitations and its new roles.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The author declares no conflict of interest.

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Article

Credibility of Digital Political News in Spain: Comparison between Traditional Media and Social Media

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Abstract: In the context of the dissemination of fake news and the traditional media outlets' loss of centrality, the credibility of digital news emerges as a key factor for today's democracies. The main goal of this paper was to identify the levels of credibility that Spanish citizens assign to political news in the online environment. A national survey (n = 1669) was designed to assess how the news format affected credibility and likelihood of sharing. Four different news formats were assessed, two of them linked to traditional media (digital newspapers and digital television) and two to social media (Facebook and WhatsApp). Four experimental groups assigned a credibility score and a likelihood of sharing score to four different political news items presented in the aforementioned digital formats. The comparison between the mean credibility scores assigned to the same news item presented in different formats showed significant differences among groups, as did the likelihood of sharing the news. News items shown in a traditional media format, especially digital television, were assigned more credibility than news presented in a social media format, and participants were also more likely to share the former, revealing a more cautious attitude towards social media as a source of news.

Keywords: credibility; likelihood of sharing; political digital news; Facebook; WhatsApp; digital television; digital press; Spain

1. Introduction

The notion of fake news has become widespread in recent years, especially since the 2016 US presidential elections.[1] However, the concepts and the implications of inaccurate, flawed, unverified or fake news have been studied since the early 20th century (Giglietto et al. 2019).

The classical literature on news creation indicates that a source's prominence influences the credibility assigned to the news, even by journalists (Tuchman 1978), leading to a privilege for institutionalised sources. However, today we are witnessing a loss of trust in the press as a democratic institution (Bennett and Livingston 2018), just as the new digital media are enabling political and institutional actors to leap over the flow of communication, which may include fake news. While at the same time, the more partisan media are contributing to making viral this flawed news, as proven by different studies on fake news (Vargo et al. 2018). Therefore, the obstacle to combatting disinformation or fake news is not only its creation but also its instantaneous propagation by means of multiple news channels, especially the social media.

Given all of this, it is clear that the credibility of the news that circulates in an online environment is an important factor when studying the phenomenon of disinformation, fake news, and the loss of trust in the traditional media, in that it can explain its scope or influence. In this sense, Go et al. (2016) offer an interesting reflection on the relationship between credibility and trust. According to these authors, the research tradition in media psychology has often focused on the concept of credibility as an individual perception, while the research tradition in media sociology has preferred to use the broader term "trust", which is associated with social capital. Nonetheless, as these authors and others like Tsfati (2010) point out, credibility should be understood as a core component of trust

in the media, that is, as an individual indicator which, along with others, enables the level of trust in the media on a societal level to be evaluated.

However, credibility is not objective but instead a personal perception about the quality of news. Therefore, it is important to study audiences to evaluate their perceptions of the credibility of news items. In this study, we examined how the Spanish population over the age of 18 perceives this news in order to ascertain the degree of credibility they assign to the different media and platforms in the online environment: newspapers, television, Facebook, and WhatsApp.

The Spanish case is relevant because authors such as Bernal-Triviño and Clares-Gavilán (2019) have already proved that the credibility of political information is an important issue for Spaniards in a context of concern for the possible effects of the so-called fake news in shaping public opinion. This fact, together with the consolidation of the so-called hypermedia space, points to the idea that new media, platforms and devices have a significant impact in news credibility. This is the conclusion of the study of Varona-Aramburu et al. (2017), in which they state that, in Spain, mobile devices have become the first gateway to the internet, thus transforming the way the public obtains information and interacts with news content. Moreover, Spain is one of the European countries with the less credible press, according to different studies. For example, the Reuters Institute Digital News Report 2015: Tracking the future of news[2], studied the level of trust in the news by citizens of 12 European countries, and Spain was the second-to-last country, with only 32% of citizens trusting the news, far from the levels in Finland (68%). Finally, a Pew Research Center[3] study comparing Denmark, Germany, The Netherlands, Sweden, United Kingdom, Italy, Spain, and France highlights the fact that the Southern European countries have lesser trust in their media. In Spain, specifically, only 31% of citizens show trust in the news they receive, far from the first country in the ranking (The Netherlands, with 67% of its citizens trusting the news from their local media).

2. Literature Review

2.1. News Credibilty

The research into news credibility is extensive and prolific from both the academic and industrial vantage point, and it has a longstanding tradition. The majority of authors concur in stating that news credibility can be addressed on three levels: source credibility (that is, the credibility of specific titles), medium or media credibility (that is, the credibility of television or newspapers or radio in general, for example), and content or message credibility (that is, the credibility of a specific news story) (Kiousis 2001; Bucy 2003; Chung et al. 2012; Blach-Ørsten and Burkal 2014). Even though all three essentially seek to study how certain news components are associated with certain levels of credibility, it is clear that different elements are emphasised. Thus, in source credibility, the qualities of the communicator are an essential factor. In contrast, in medium credibility, the specific and socially recognised ways that the news is presented in every medium are ultimately the determining factors. Finally, when evaluating content credibility, the use of language, the way a specific news item is organised and presented and its sources, attribution processes (Hong 2021), as well as the event reported itself, all bear an influence.

So, what are the components of credibility? As Sundar (1999) and Blach-Ørsten and Burkal (2014) suggest, credibility has often been evaluated based on synonyms that end up being somewhat ambiguous, abstract. and generic, just like the notion of credibility itself (for example, based on the concept of believability). However, there does seem to be a somewhat solid agreement among the scholarly community in considering that trustworthiness and expertise are the two main sub-dimensions of credibility, especially source credibility (Bucy 2003; Chung et al. 2012; Choi and Kim 2017). Others advocate for a broader definition of credibility that also includes the community affiliation dimension, or, more recently, dimensions inherent to the online environment such as hypertextuality and interactivity (Chung et al. 2012). In any event, researchers tend to construct credibility indexes by presenting a series of informational qualities associated with each of these

dimensions (such as objectivity, impartiality, accuracy, precision, or veracity) and asking informants to evaluate their presence in the news item using a Likert scale (this is the option chosen by Miller and Kurpius 2010; Bucy et al. 2014; and Choi and Kim 2017, among others). Yet as mentioned above, these qualities are often as ambiguous as the concept of credibility itself.

2.2. The Factors That Explain the Credibility Assigned to News

Different studies have examined the factors that influence the perception of credibility beyond the source, the medium, and the content of the news story. For example, it has been pointed out that the use and consumption of news practices in general (Roses and Gómez-Calderón 2015) and the Internet specifically—especially checking digital newspapers (Go et al. 2016)—affect the credibility levels assigned to news. Other studies underscore the importance of relying on certain news sources in perceptions of credibility (Johnson and Kaye 1998, 2014) or point to news coverage as a key factor for credibility (Rodríguez-Fernández et al. 2020). And yet others cite the tendency to discuss news in interpersonal communication as an important factor when assigning low credibility to television news (Kiousis 2001), or when assigning more or less credibility to liberal and conservative media outlets, depending on the kind of interpersonal discussion at stake (supportive or opposing) (Hmielowski et al. 2020). However, the possibility of evaluating the credibility assigned to news based on the actions that users take with it in the online environment (sharing and discussing it via the social media), which would transfer the tendency to discuss the news that Kiousis (2001) mentions to the virtual sphere, has barely been explored (although the study of Pjesivac et al. (2018), focused on how online comments in the news affect the assessment of its credibility, is one interesting contribution in this sense). Likewise, the fact that individuals' interest in the topics discussed in the news may be related to the credibility they assign to it has scarcely been evaluated. We thus pose the following hypotheses:

Hypothesis 1.1. *The credibility assigned to news in the online environment is associated with a desire to share it via the social media.*

Hypothesis 1.2. *The credibility assigned to news in the online environment is associated with the interest in the topics covered by the news.*

On the other hand, age has been noted as a factor that conditions the perception of credibility. Nonetheless, there are no conclusive results on the direction of this relationship. Fogg et al. (2001) and Choi and Kim (2017) state that young people are more critical and therefore less likely to assign credibility to the news, while in a study on the perception of credibility of the media in Spain, Roses and Gómez-Calderón (2015) explain that older informants, as well as those with higher educational levels, assign lower levels of credibility to news stories (as already found by Bucy 2003). In the case of the social media as news sources, Johnson and Kaye (2014) also found that young people assign them higher credibility. In any event, bearing in mind that this study focuses on Spaniards' perceptions, we posited the following hypotheses:

Hypothesis 2. *The level of credibility assigned to the news in an online environment is negatively affected by age.*

2.3. Format or Genre Credibility

Even though media credibility is conceptually different from source credibility, when researching them it becomes clear that they are rather difficult to separate, since there are aspects that permeate both (Kiousis 2001). Therefore, the indicators to evaluate media credibility often differ little from those used to study source credibility. For example, Flanagin and Metzger (2000) constructed a composite index on the perception of the believability, accuracy, trustworthiness, bias, and completeness of the news found in newspapers,

radio, television, and the Internet. Kiousis (2001), in turn, compared the perceptions of the credibility of news items in newspapers, television, and online by asking the respondents about their degree of factuality, motivation for money, privacy, community concern, and trust. While the results in the latter study show that the medium assigned the highest credibility is newspapers, followed by online news and television, Flanagin and Metzger (2000) conclude that newspapers are the only medium with more credibility than the other media, whose levels of credibility show no statistically significant differences.

In any event, these two studies were conducted at a time when the presence of online news had just begun, and when many of the formats and mechanisms by which the news reaches users today were still being defined. The first factor worth bearing in mind in this sense is that it is not very practical to consider the Internet as a means of communication that can be evaluated as a whole in terms of its credibility. Currently, the Internet includes all the news formats of the traditional media along with new ones. Thus, the digital news environment reaches users by many avenues and in different formats: social media, digital newspapers (native and not), IP television, chats, aggregators, etc. In the conclusions of his study, Kiousis (2001) himself warned that one of the factors that must be addressed is how we define "online news", a concept which is ambiguous for both researchers and subjects. Therefore, it is essential to evaluate how different types of online news may be related to different levels of credibility. In this sense, for example, Go et al. (2016) analyse the perception of the credibility of online news according to whether it is provided by portals, digital newspaper websites, or the social media, and Chung et al. (2012) distinguish between three online news sources: mainstream, independent, and aggregators.

Flanagin and Metzger (2007) propose the concept of "genre" to refer to the different environments in which news can be "embedded" on the Internet (they distinguish between news media websites, special interest sites, e–commerce sites, and personal sites), and they prove that genre affects the perception of credibility (although they admit that it can be masked by the characteristics or attributes of the sites evaluated). Seven years later, Johnson and Kaye (2014) took the concept of "genre" and applied it to the political news that appears in the social media, political websites, candidates' websites, political blogs, candidates' blogs, YouTube, television news broadcast online, cable television news shown online, and digital newspapers. The authors also state that: "the Internet is comprised of several components, such as SNS [social network sites] and blogs. Because each component is different from one another in terms of interactivity, synchronicity, how information is retrieved, how it is used, and users' expectations, the credibility of each is judged by different criteria" (Johnson and Kaye 2014, p. 959).

Therefore, it could be asserted that genre is halfway between source and medium. Genre is not necessarily a medium (newspapers, either online or on paper, are a single medium, but each of these forms of dissemination is a different genre), yet nor is it necessarily a source of news (thus, for example, newspapers have social media profiles where they reproduce their news, so in these cases the source would not be the social media—which is a genre—but the medium where the news is posted). However, genre also has points that connect it with the concept of medium (it entails a certain way of editorialising or presenting contents, just as in the media) and with the concept of source (sometimes it is associated with famous brands, such as Facebook and Twitter, when these media provide news from original sources that the user is unfamiliar with or are not strictly news-oriented). Therefore, genre is the format taken by the online news.

In this sense, this research sets out to study how the format or genre of political news on the Internet—format or genre meaning the environment in which this news is embedded and the form it adopts—can affect the perception of credibility, while stressing the distinction between formats common to the traditional media and formats common to the social media because of their central role in propagating news today. We thus posit the following hypotheses:

Hypothesis 3.1. *The credibility assigned to news in the online environment depends on the format in which it is presented (digital newspaper, digital television, Facebook, and WhatsApp).*

Hypothesis 3.2. *Individuals tend to consider news presented in the online environment in formats common to the traditional media (digital newspaper and digital television) as more credible than news in the online environment presented in formats common to the social media (Facebook and WhatsApp).*

3. Materials and Methods

To empirically test these hypotheses, a national online survey was designed which is representative of the entire adult population of Spain, with an experimental part inspired by the methodological designs of studies on credibility such as those by Hovland and Weiss (1951–1952), Miller and Kurpius (2010) and Weitz-Shapiro and Winters (2016). Thus, a 4 × 4 experimental design was used which shows four news formats in the online environment (digital newspaper, digital television, Facebook, and WhatsApp) with four generic news items on topics of political interest (immigration, feminism, the far right, and the Lesbian Gay Bisexual Transgender and Queer LGBTQ community). Four experimental groups were created, each of which was exposed to all four news items presented in different formats, such that the same news content is evaluated in a different format by each of the experimental groups.

3.1. Sample

The sample was designed by the market study company YouGov Spain based on their online panel. The sample is comprised of 1669 adults representative of the Spanish population as a whole, weighed by sex, age, and region of residence (Nielsen areas) (n = 1669). This sample was subdivided into four experimental subgroups of the same size (n = 411, n = 435, n = 414, n = 409), which are also representative, who responded to an online survey administered by YouGov Spain between 12 and 17 February 2019. For a confidence level of 95% and $p = q = 0.5$, the overall sample error is ±2.4%.

The sample is comprised of 49% men (n = 810) and 51% women (n = 859). In terms of the age distribution, 8% are 18 to 24 (n = 137), 14% are 25 to 34 (n = 236), 20% are 35 to 44 (n = 332), 19% are 45 to 54 (n = 319) and 39% are 55 or older (n = 644). Finally, with regard to their region of residence (Nielsen areas), 21% live in the northeast (n = 349), 15% on the east coast (n = 242), 24% in the south (n = 405), 22% in the centre (n = 363), 10% in the northwest (n = 158) and 9% in the north (n = 153).

3.2. Experimental News Materials

In order to ensure that the content of the news evaluated did not affect the perception of credibility, four sets of our news items with exactly the same content were created, but they were presented in the four formats studied. Thus, a news item in the digital newspaper, the television news, the Facebook post, and the WhatsApp message contains exactly the same information, whether written or oral. Obviously, the voiceover in the televised news item is accompanied by images which illustrate the story, but we strove to ensure that they were generic images that could not identify any particular place or person. At the same time, the news item in the digital newspaper, the Facebook post, and the WhatsApp message format are accompanied by a photograph, which is a screenshot of the TV news item.

Television and newspaper were chosen as the traditional media formats because they are the ones used the most by the Spanish population to get the news[4] while Facebook and WhatsApp were chosen as the social media because they are the are most widely used in Spain to read, see, find, share, or comment on the news[5].

All four news items used in the experiment correspond to real phenomena reported in televised format by news agencies. The selection criteria are based on two factors: (a) They are relevant, real phenomena yet distanced from the most immediate milieus

of the respondents to avoid direct knowledge of the story, and (b) Relevant news items were chosen in four topics of political interest which appear recurrently in the media (immigration, feminism, the far right, and the (LGBTQ) community). The selection of these four controversial topics may certainly have an impact on the assessment of credibility by respondents, even though all of them were given a neutral journalistic tone. In this sense, external factors such as a cognitive dissonance (Festinger 1962) between the news item under assessment and the respondents' political beliefs or attitudes towards the topic seem relevant issues to take into consideration. However, this impact is expected to be equally distributed among each one of the experimental groups, which were all representative of the Spanish population. Therefore, despite this probably having an impact in the overall assessment of credibility, it should not affect the differences encountered in the credibility assigned to each one of the formats, which is the main interest of this paper.

To create the televised news items, the original video news stories were edited and processed in order to eliminate any elements that would enable the source to be identified, and they were attributed to a non-existent TV station with an invented logo. To create the written news items, the voiceover of the video news items was turned into writing, and the website of a fictitious digital newspaper was created, as well as a Facebook post and a WhatsApp message also attributed to non-existent media (see samples of the news items created in the Appendix A, Figures A1–A4). In this way, we avoided introducing elements of source credibility or message credibility into the experiment, and we managed to focus the credibility evaluation exclusively on the news items' format or genre.

3.3. Procedure

The survey respondents accessed the online survey via a link that they had been sent by YouGov Spain. First, they were warned that they had to have their sound activated in order to answer the questions, and then they were presented with the four different news items in the four aforementioned formats. In each of the four experimental groups, the combinations of topic and format were randomised to neutralise possible sequence biases in the responses (see Table 1).

Table 1. Survey administration procedure for each of the experimental groups.

Introduction (*n* = 1669)				
Experimental Group 1 (*n* = 411)	**Experimental Group 2** (*n* = 435)	**Experimental Group 3** (*n* = 414)	**Experimental Group 4** (*n* = 409)	
Immigration—Digital newspaper	Immigration—Digital television	Immigration—Facebook	Immigration—WhatsApp	
Feminism—Digital television	Feminism—Facebook	Feminism—WhatsApp	Feminism—Digital newspaper	Rotations within each group
LGTBQ—Facebook	LGTBQ—WhatsApp	LGTBQ—Digital newspaper	LGTBQ—Digital television	
Far right—WhatsApp	Far right—Digital newspaper	Far right—Digital television	Far right—Facebook	
Questions on interest in the news items on immigration, feminism, LGTBQ and far right (*n* = 1669)				

LGBTQ = acronym for lesbian, gay, bisexual, transgender and queer.

After viewing each news item but before going on to the next one, the respondents answered two questions related to the credibility they assigned to the news item and the likelihood that they would share it via the social media. At the end of the questionnaire, there were four more questions in which they were asked to evaluate how interested they were in the topics addressed by the news items seen (immigration, feminism, the far right and the LGBTQ community).

3.4. Measuring Credibility

Credibility is clearly a complex, multidimensional concept. Nonetheless, it is also a subjective perception that each person constructs based on criteria which may diverge. In view of this complexity and the need to limit the number of questions asked to such a large number of people in an online survey, we chose to directly ask the respondents about the credibility they assigned to the news items to which they were exposed, using a Likert scale from 1–5 in which 1 meant minimum credibility and 5 maximum credibility. Therefore, credibility was evaluated according to the survey respondents' own implicit and direct definitions, without conditioning them with any pre-established definition. In this sense, we should add that the items comprising the majority of credibility indexes designed by other authors (such as impartiality, truthfulness, or objectivity), as mentioned above, are often as abstract and generic as the very concept of credibility itself. In fact, Meyer (1988) warned that designing the questions to evaluate credibility using other terms could strongly condition the respondents' answers. Therefore, it was deemed preferable to directly question the respondents on their perception of credibility.

In order to examine the relationship between the credibility assigned to the news item in the online environment and the likelihood of sharing it via the social media, a second question was designed which asked the respondents to what extent they would be likely to share the news item they had seen in the social media, with a Likert scale of 1–5 in which 1 meant "I would never do it" and 5 meant "I would do it for sure".

Finally, the association between interest in the topic and the credibility assigned to the news item was evaluated with four questions at the end of the questionnaire which asked the respondents to what extent they were interested in these four topics, with a Likert scale of 1–5 in which 1 meant "no interest" and 5 meant "very interested".

4. Results

4.1. Credibility of Online News According to Format and Topic

Hypothesis 3.2 stated that individuals assign higher credibility to online news presented in traditional media formats (digital newspapers and digital television) than in social media formats (Facebook and WhatsApp). The hypothesis is valid, since in all four experimental groups the news items assigned the highest credibility are those presented in digital television format, regardless of the topic addressed in this format. Secondly, the news in the digital newspaper format was assigned the highest credibility in three of the four groups (only in the group in which the news on the far right was presented in digital newspaper format was the credibility assigned lower than the news item on feminism, which was presented in Facebook format). The news items in Facebook and WhatsApp format were assigned lower levels of credibility (Table 2).

Table 2. Mean credibility assigned to the online news by format.

Experimental Group Number	Digital Television		Digital Newspaper		Facebook		WhatsApp	
	Mean	**Standard Deviation**	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Experimental Group 1 (*n* = 411)	4.20 (Feminism)	0.92	3.74 (Immigration)	1.06	3.22 (LGBTQ)	1.21	2.89 (Far right)	1.19
Experimental Group 2 (*n* = 435)	4.14 (Immigration)	0.97	3.17 (Far right)	1.11	3.48 (Feminism)	1.09	3.09 (LGBTQ)	1.20
Experimental Group 3 (*n* = 414)	3.99 (LGBTQ)	0.98	3.81 (Feminism)	0.98	2.88 (Far right)	1.09	3.12 (Immigration)	1.31
Experimental Group 4 (*n* = 409)	3.78 (Far right)	0.97	3.47 (LGBTQ)	1.18	3.34 (Immigration)	1.28	3.31 (Feminism)	1.13

Note: credibility measured on a scale of 1–5, with 1 meaning least credibility and 5 meaning most credibility. (Source: Developed by the authors).

The average overall credibility assigned to each of the formats (adding together the responses of the 1669 individuals surveyed in relation to the news items on different topics measured on a Likert scale of 1–5) was 4.03 for digital television (SD: 0.97), 3.54 for digital newspapers (SD: 1.11), 3.22 for Facebook (SD: 1.19) and 3.08 for WhatsApp (SD: 1.22). In this sense, despite the difference in formats, it is important to note that in all cases the average credibility assigned materialised in scores which are on the middle or high end of the scale. Therefore, no format is assigned low or very low credibility.

In order to validate that the format of online news indeed affects the credibility assigned (Hypothesis 3.1), an Analysis of Variance (ANOVA) test was conducted with format and topic of the news (feminism, immigration, far right, and LGTBQ) as factors and with age, gender, and interest in the topic as covariables. The results show the format has a significant effect on the levels of credibility assigned (F: 241,332). Moreover, we observed that the topic of the news item also affects credibility, although it does so to a lesser extent (F: 67,569) (Table 3).

Table 3. ANOVA test. Credibility as dependent variable.

ANOVA TEST 1					
Dependent Variable: Credibility					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	1337.166a	18	74.287	61.725	0
Intersect	1196.02	1	1196.02	993.767	0
Age	102.311	1	102.311	85.01	0
Gender	2.359	1	2.359	1.96	0.162
Interest	93.386	1	93.386	77.594	0
News Format	871.345	3	290.448	241.332	0
News Topic	243.962	3	81.321	67.569	0
News Format * News Topic	16.525	9	1.836	1.526	0.133
Error	8011.841	6657	1.204		
Total	89521	6676			
Corrected Total	9349.007	6675			

a. *R* Squared = 0.143 (Adjusted *R* Squared = 0.141)

* meaning we analyzed the interaction between news format and news topic. (Source: Developed by the authors).

Furthermore, there are significant correlations between the credibility assigned to each of the formats, regardless of the topic of the news item; that is, the respondents who tended to assign higher credibility scores to a given format also assigned higher scores to the other formats. However, these correlations are stronger between the two types of formats: digital television and digital newspapers on the one hand, and Facebook and WhatsApp on the other (Table 4).

Table 4. Correlation coefficients of credibility in each format.

Format	Credibility—Digital Television (n = 1669)	Credibility—Digital Newspaper (n = 1669)	Credibility—Facebook (n = 1669)	Credibility—WhatsApp (n = 1669)
Credibility—Digital Television (n = 1669)	1	0.331 ***	0.285 ***	0.239 ***
Credibility—Digital newspaper (n = 1669)		1	0.207 ***	0.310 ***
Credibility—Facebook (n = 1669)			1	0.348 ***
Credibility—WhatsApp (n = 1669)				1

Note: Pearson correlation analysis was performed. The correlation analyses are based on a two-tailed test. *** $p < 0.001$. (Source: Developed by the authors).

Hypothesis 1.2 focused on how the interest in certain topics may be associated with the credibility assigned to the news items referring to these topics. Below (Table 5) we show the average scores on the interest that the respondents expressed in each of the topics that were part of the survey:

Table 5. Interest in the different news topics.

Topic	M	SD
Feminism (n = 1669)	3.61	1.23
Immigration (n = 1669)	3.44	1.19
LGBTQ (n = 1669)	3.45	1.31
Far Right (n = 1669)	3.70	1.35

Note: Interest measured on a scale of 1–5, with 1 meaning least interest and 5 meaning most interest. (Source: Developed by the authors).

The previous ANOVA test showed how the variables "interest in the topic" and "age" (Hypothesis 2) also had a significant impact on the credibility assigned. In this sense, a multiple linear regression was carried out with the dependent variable "News credibility" and the rest of the variables as predictors (except for variable "Gender", due to its non-significant result in the previous ANOVA test) (Table 6). With this model, we can confirm the strong association between credibility and news format (F: −0.0225). However, there are also moderate associations with "age" (F: 0.072) and "news topic" (F: −0.071). Finally, the variable "interest in the topic" (F: 0.032) has the lowest association with credibility. It should also be noted that R squared is fairly high (0.363).

Thus, looking at the hypotheses previously posed, we observe that a greater interest in a specific topic is associated with assigning higher credibility scores to the news referred to it. Moreover, young people are generally those who assign lower credibility scores to the news, in comparison with older people, while the hypothesis predicted the opposite.

Table 6. Multiple Linear Regression. Credibility as dependent variable.

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Standard Error of the Estimate**
1	0.603a	0.363	0.363	0.945

a. Predictors: (Constant), News sharing, Age, News Format, News Topic, Interest

Dependent variable: Credibility

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	St. Error	Beta		
1	(Constant)	2.679	0.077		34.987	0.000
	Age	0.006	0.001	0.072	7.313	0.000
	Interest	0.046	0.014	0.032	3.247	0.001
	News Format	−0.239	0.010	−0.225	−22.834	0.000
	News Topic	−0.076	0.011	−0.071	−7.191	0.000
	News Sharing	0.449	0.009	0.498	48.958	0.000

Dependent variable: Credibility

(Source: Developed by the authors).

4.2. Credibility and Sharing News Items in the Social Media

Hypothesis 1.1 sought to evaluate to what extent the credibility assigned to a news item was related to the desire to share it via social media; if this association were to be validated, the action of sharing could be pinpointed as a behaviour indicative of the credibility assigned. Table 7 shows the respondents' average responses to the question of the likelihood that they think they would share the different news items they were presented via social media, according to the format in which they saw the news. As it can be seen, likelihood of sharing is higher in those news formats with higher credibility scores, and vice versa.

On the other hand, the ANOVA test conducted in relation to the willingness to share according to the format show that format matters, just as with assigned credibility (Table 8). Thus, a greater likelihood of sharing generally occurs with formats which are considered more credible, regardless of the topic of the news item, which reinforces Hypothesis 1.1. In this sense, the likelihood of sharing in any of the formats (adding together the responses of the 1669 respondents in relation to news items on different topics, measured on a 1–5 Likert scale) was 2.87 for digital television (SD: 1.36), 2.54 for digital newspapers (SD: 1.28), 2.39 for Facebook (SD: 1.28) and 2.37 for WhatsApp (SD: 1.27). Therefore, this reproduces the format order found in the case of credibility, although the differences in scores between the formats in relation to the likelihood of sharing on the social media are lower, and the overall averages are also lower.

Table 7. Likelihood to share the news items via the social media, by format.

Experimental Group Number	Digital Television		Digital Newspaper		Facebook		WhatsApp	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Experimental Group 1 (*n* = 411)	3.32 (Feminism)	1.39	2.68 (Immigration)	1.33	2.46 (LGTBQ)	1.30	2.18 (Far right)	1.18
Experimental Group 2 (*n* = 435)	2.82 (Immigration)	1.32	2.18 (Far right)	1.14	2.79 (Feminism)	1.31	2.42 (LGTBQ)	1.27
Experimental Group 3 (*n* = 414)	2.88 (LGTBQ)	1.30	2.89 (Feminism)	1.31	1.94 (Far right)	1.10	2.30 (Immigration)	1.27
Experimental Group 4 (*n* = 409)	2.50 (Far right)	1.30	2.46 (LGTBQ)	1.26	2.38 (Immigration)	1.28	2.63 (Feminism)	1.32

Note: Likelihood to share measured on a scale of 1–5, with 1 meaning least likely and 5 meaning most likely. (Source: Developed by the authors).

Table 8. ANOVA test. Likelihood of sharing as dependent variable.

ANOVA TEST 2					
Dependent Variable: Sharing the News					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1019.881a	18	56.66	35.954	0
Intersect	349.379	1	349.379	221.701	0
Age	50.382	1	50.382	31.97	0
Gender	12.088	1	12.088	7.671	0.006
Interest	215.626	1	215.626	136.827	0
News format	272.806	3	90.935	57.704	0
News topic	405.421	3	135.14	85.754	0
News format * News topic	28.935	9	3.215	2.04	0.031
Error	10,490.781	6657	1.576		
Total	54,683	6676			
Corrected Total	11,510.662	6675			

a. *R* Squared = 0.089 (Adjusted *R* Squared = 0.086)

* meaning we analyzed the interaction between news format and news topic. (Source: Developed by the authors).

Moreover, the multiple linear regression (Table 9) confirms the strong positive relationship between credibility assigned to the news and likelihood of sharing it, with an F coefficient of 0.53. A significant association between interest in the topic and likelihood of sharing the news is also remarkable (F: 0.089), just as it occurred when credibility was assessed. Furthermore, it is interesting to note that the multiple regression offers a value of 0.321 for *R*, a much more explanatory result than the one from the ANOVA test. On the contrary, age does not seem to be a factor associated with likelihood of sharing the news, despite being significant when assessing credibility.

Table 9. Multiple Linear Regression. Likelihood of sharing as dependent variable.

Model	*R*	*R* Square	Adjusted *R* Square	Standard Error of the Estimate
1	0.567a	0.322	0.321	1.082

a. Predictors: (Constant), Credibility, gender, age, News topic, interest, News format
b. Dependent variable: News sharing

			Model				
Model	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.	*t*	Sig.
	B	St. Error	Beta				
1	(Constant)	0.095	0.099			0.957	0.339
	Age	0.001	0.001	0.01		1.023	0.306
	Gender	0.064	0.027	0.024		2.342	0.019
	Interest	0.139	0.016	0.089		8.513	0
	News topic	−0.108	0.012	−0.092		−9.015	0
	News format	0.018	0.012	0.016		1.479	0.139
	Credibility	0.589	0.012	0.53		48.928	0

a. Dependent variable: News sharing

(Source: Developed by the authors).

5. Discussion and Limitations

As Martin and Hassan (2020) pointed out, news credibility perceptions predict online fake news exposure, at least in certain countries. The study of news credibility is thus particularly relevant in the current context of concern about the spread of disinformation. With this research, we sought to study how three different factors (the format of the news in an online environment, respondents' interest in certain topics which repeatedly appear in the media, and age) may influence people's perceptions of the credibility of online news in Spain, and we also sought to analyse the relationship between the credibility of the news items in the online environment and the likelihood of sharing them via the social media.

Relatively few years ago, the Internet was considered yet another medium in studies on media credibility, but today it is clear that this makes little sense. Thus, in this study we analysed how the format of the online news (a concept similar to genre coined by Flanagin and Metzger 2007) may be related to credibility. The design and administration of an experimental survey to a representative sample of the adult Spanish population as a whole enabled us to conclude that format does indeed affect perceptions of credibility, regardless of the topic addressed by the news items. The results show that news items presented in formats native to the traditional media (digital television and digital newspapers) are viewed as more credible than those presented in formats native to the social media (Facebook and WhatsApp), as also found in Johnson and Kaye (2014), revealing a more cautious attitude towards news that circulates in the social media. However, the high degree of credibility assigned to news items in the digital television format compared to the digital newspaper format is to some extent surprising, given that outside the online environment, newspapers seem to have the highest levels of credibility (Flanagin and Metzger 2000; Kiousis 2001). We should also note that, generally speaking, the levels of credibility assigned to the news in the online environment are moderately high in all the formats studied, meaning that we found an important level of trust in the online media as well, just as Roses and Gómez-Calderón (2015) did. Considering that Facebook and WhatsApp are highly associated with disinformation and fake news, this is a surprising finding that poses a debate on whether citizens are aware enough of the potential drawbacks and perils of social media as a source of news. Further research seems necessary to better explore these issues.

Finally, we question whether the results of this study would have been significantly different if we had measured credibility not as a simple variable to which the participants respond but as a composite index of different variables, as done in the majority of studies in the field. Regardless, we believe that it makes sense to study individual perceptions, such as the perception of credibility, by directly asking the survey population to take a position on this factor, without resorting to terms which indirectly refer to it. We also wonder whether a different instrument for assessing credibility (for example, a 1–7 Likert scale instead of a 1–5 Likert scale) would have produced significantly different results on the credibility assigned to the formats under scrutiny. It seems plausible to think that a larger scale would have produced bigger differences in credibility among formats, which in turn would have allowed a better understanding and explanation of these differences in relation to variables such as age or interest in the topic. However, this is something to be assessed in future studies. Obviously, the other major doubt remaining is whether in other countries the results of this experimental survey would be similar to the ones we described here.

6. Conclusions

The differences in credibility between media in the offline environment, or old media, are not reproduced when comparing online news formats. In any case, it seems clear that the higher credibility assigned to news in the digital television format may indicate that news in this format more easily lends itself to spreading disinformation. As Kiousis (2001) pointed out, the existence of images may provide televised news with the appearance of greater credibility.

Furthermore, we found that there are significant correlations between the levels of credibility assigned to the news items in different formats, which indicates that the people who assign high credibility to one format also tend to evaluate the other formats as highly credible. The associations are stronger between digital television and digital newspapers and between Facebook and WhatsApp, which might indicate that each type of format (traditional media or social media) generates more similar perceptions of credibility.

Compared to format, age and interest in the topic are factors that are less explanatory of credibility. With regard to age, we found a slight positive correlation between age and credibility, which is more pronounced in the news items presented in social media formats. Young people seem to be more critical with online news items, especially when they appear in social media formats, whereas older people show a stronger tendency to assign credibility to this type of news. These results corroborate those found by Choi and Kim (2017) and contradict the hypothesis posited in this research, which assumed a less critical attitude among young people. They also point to a possible future avenue of research in this direction to learn more about this phenomenon, by introducing new variables in the relationship between age and credibility that may help understand the divergent conclusions posed by different studies on this issue. In any case, it can be assumed that younger people's greater expertise or mastery of the new language and new platforms contributes to their being more watchful and cautious when assigning credibility to the news items that reach them via WhatsApp and Facebook.

On the other hand, interest in the topic of the news items presented in the experiment (feminism, immigration, far right, and LGTBQ) is also correlated with credibility, albeit not strongly, such that the more interest the individuals show in a topic the more credibility they tend to assign to the news item which mentions it, regardless of the format in which it is presented. This result is particularly interesting and leads us to question to what extent personal interests, beliefs, and attitudes can lead to a suspension of individuals' critical judgement due to cognitive dissonance processes. Further study is needed to explore these factors in more depth. It should be noted that among all the news topics presented to the respondents, the "far right" topic led to results that differ somehow from the others. It is the news item in which the respondents expressed the keenest interest, and also the one in which this interest is the least correlated with the credibility assigned, as well as

being the only topic in which there is no correlation between age and credibility. All of this could be related to the fact that news items on this topic have always been assessed as less credible in all formats, although it also enables us to posit hypotheses such as the fact that it is a socially delicate topic which "distorts" the results compared to the results of the news items on the other topics, which are perhaps not quite as "thorny".In terms of sharing news via the social media, this is a factor that is clearly associated with credibility. We believe it may be useful to include this factor in studies on the credibility of news in the online environment to help predict whether credibility will be assigned, especially in relation to news that is spread via WhatsApp, a social app particularly suitable for sharing information among close contacts. However, it is interesting to note that sharing news items is not clearly associated with age, as in the case of credibility. In this sense, one hypothesis could be that older people (who tend to assign more credibility to news and therefore, in theory, should tend to share it more) are not as familiar with social media and consequently less likely to share news by this means.

Appendix A

Figure A1. Sample of the news item on the far right in digital television format.

Figure A2. Sample of the news item on the far right in digital newspaper format. Translation: **A Greek far-right demonstration takes control of the streets of Athens chanting slogans against Turkey.** A cordon of police vans has blocked access to the Greek Parliament The far-right party Golden Sunrise organized its annual march which saw an attendance of 2000 supporters. They met near the Greek Parliament to commemorate the 1996 crisis of Imia-Kardak in which Greece and Turkey were close to starting a military conflict over the control of an uninhabited island that ended in the death of 3 Greek pilots. Over twenty years since that incident, the Greek far-right movement has accused Turkey of allowing the arrival of refugees and immigrants to European coasts. Golden Sunrise's lawyer, Ilias Panagiotaros, declares that Greece "has an open-door policy, they come and go whenever they want. We would like to have policies similar to the ones which are being carried out by Donald Trump in the USA". At the same time, a counter-demonstration took place in Athens, the main motto of which was a message against fascism and nationalism. The police established a security perimeter to avoid any kind of clash between the two groups of supporters.

Figure A3. Sample of the news item on the far right in Facebook format.
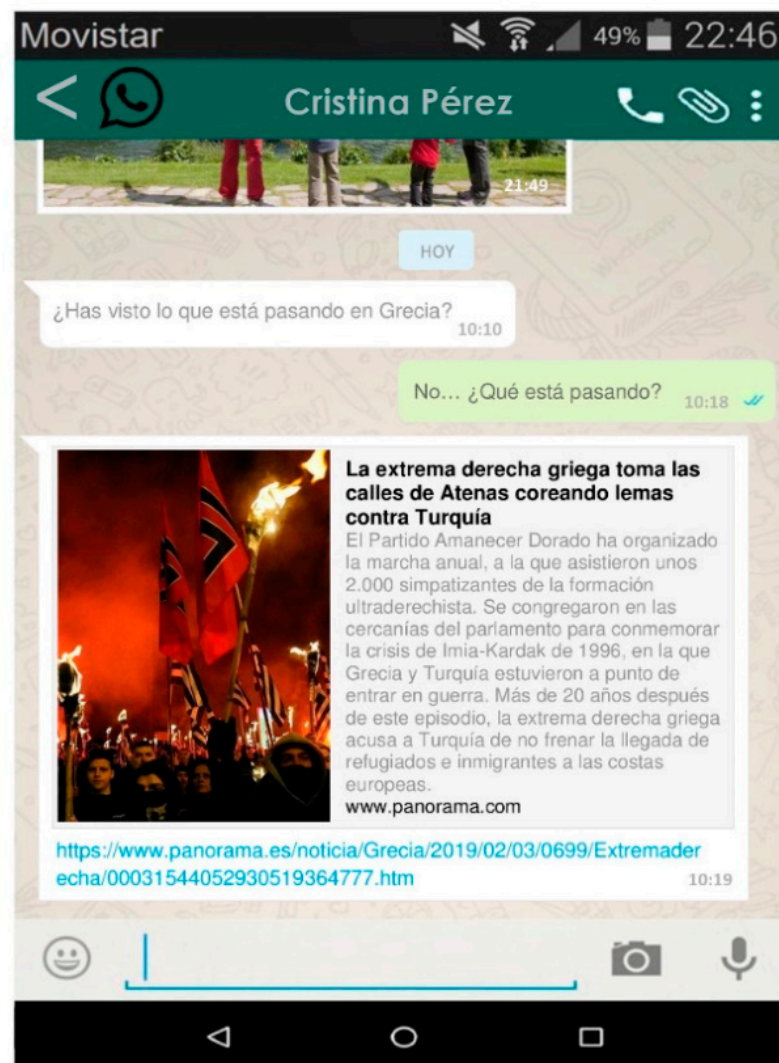
Figure A4. Sample of the news item on the far right in WhatsApp format.

Notes

[1] Fallon, Claire. 2017. Where does the term "fake news" come from? The 1890s, apparently. HuffPost. Retrieved from http://www.huffingtonpost.com/entry/where-does-the-termfake-newscome-from_us_58d53c89e4b03692 bea518ad (accessed on 7 May 2021).

[2] Figures from Digital News Report 2015. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/research/files/Reuters%2520Institute% 2520Digital%2520News%2520Report%25202015_Full%2520Report.pdf (accessed on 7 May 2021).

[3] Figures from Pew Research Center 2018. https://www.journalism.org/2018/05/14/in-westerneurope-public-attitudes-toward-news-media-more-divided-by-populist-views-than-left-rightideology/ (accessed on 7 May 2021).

[4] Figures from the Digital News Report 2019 for Spain: https://www.digitalnewsreport.es/2019/el--45--de--los--usuarios--elige--la--television--como--medio--principal--para--informarse--mientras--el--40--opta--por--las--fuentes--online/ (accessed on 7 May 2021).

[5] Once again, see the Digital News Report 2019 for Spain: https://www.digitalnewsreport.es/2019/facebook--whatsapp--y--youtube--lideran--en--redes--pero--instagram--y--facebook--messenger--emergen--para--uso--informativo/ (accessed on 7 May 2021).

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Article

Transparency Policies in European Public Broadcasters: Sustainability, Digitalisation and Fact-Checking

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Abstract: Over the last few years, European public broadcasters have promoted the concept of public service media as one of their main values. To this end, transparency policies have been implemented as a mechanism of corporate projection by strengthening their role as an essential service. The objective of this article is to ascertain the existence of this type of policies among European public broadcasters. To this end, a nominal group was made with 24 experts who were surveyed, thus generating new indicators of transparency and accountability strategies around sustainability and digitalization. The contents of the websites of RTVE (Spain), RTP (Portugal), France TV (France), RAI (Italy), BBC (UK), RTÉ (Ireland), ZDF (Germany), VRT (Belgium), and SVT (Sweden) were also analyzed, paying attention to such indicators and strategies. The main results include the identification of differences on the basis of the ideal models described by Hallin and Mancini; a commitment to credibility (fact-checking) to the detriment of diversity of opinions; and a connection between the political system and the media system, which, preliminarily, determines the level of transparency of these public entities.

1. Introduction

European public broadcasters have made considerable efforts over the last decade to improve their transparency policies and their management systems in order to recover their legitimacy, which, in some cases, was lost, while strengthening their commitment to society and their democratic nature (Hoynes 1999; Balkin 1999; Thomass 2016). These policies have been determined by their relation to the political and institutional system through the normative dimension, but also through the influence of the state on their structure as a definer of what makes news.

Digital society has not substantially changed the frameworks that render a public broadcaster more or less transparent, the first and most important factor being the willingness to be transparent. What it has certainly brought about, however, has been a media convergency that has led to major changes in internal organization with an increasingly competitive market and laws and regulations that must adapt to the digital revolution, thus resulting in more complex models of governance (Iosifidis 2011; Arriaza Ibarra 2012). In this regard, transparency has become a central factor in political and social life, generating a "culture of transparency" (Owetschkin et al. 2021) on which new ethical criteria derived from artificial intelligence are impacting (Barceló-Ugarte et al. 2021).

To the multilevel governance model (Azurmendi and Muñoz 2016), we should therefore add an objective of transparency based on the opening of data, the dialogue with stakeholders, and the diversity of opinion in news. The development of information and knowledge technologies, as well as opening more effective channels for the accountability process, generates new challenges for all public broadcasters, including those connected

to automation, robotization, or big data (Túñez-López et al. 2019). The latter has an impact on both the manner in which news is generated and the internal management of the organizations, as well as on audience shares.

Consequently, this article takes as its starting point those articles in the literature that analyze the level of transparency of public broadcasters (Azurmendi 2015; Costa-Sánchez and Túñez-López 2017), as well how this transparency is communicated (López-Golán et al. 2018) and the participation (Chaparro-Domínguez et al. 2021). In this case, a three-pronged analysis was made: (a) the assessment of both old and new values of transparency through a nominal group with 24 experts; (b) the generation of new indicators, particularly those linked to digitalization, equality, or sustainability; and (c) the observation, through the corporations' websites, of the strategies within a general policy of transparency. To this end, the public broadcasters of Spain, Portugal, France, Italy, the United Kingdom, Ireland, Germany, Belgium, and Sweden were studied. The aim of the study is to analyze the transparency policies found in the European public broadcasters.

1.1. Transparency Policies and Their Communication

The economic and institutional crisis that has taken place in the world and that has particularly affected Europe since 2008, but also the crisis generated as a consequence of COVID-19, has led to a questioning by citizens of the legitimacy of both actors and institutions (Villoria 2014). Following the pandemic, as well as a change in the content generation routines and the creation of new social and educational programs (Fieiras-Ceide et al. 2020), there has been an increase in the corporate projection of public broadcasters, which has strengthened their role as an essential service (Túñez-López et al. 2020). In this regard, the improved access to public information and the development of effective accountability mechanism has resulted in an improvement in reputation, stability, and democratic quality (Alonso-Muñoz and Casero-Ripollés 2017).

This free access to information, in order for it to be effective, must be understandable, accessible, and comprehensive. Therefore, mass media, particularly public broadcasters, have realized that they need to improve the communication of those processes related to the internal management of (institutional or economic) collective resources and how they are projected externally, whether it is through individual mechanisms (right of access or assessment of contents) or through corporate mechanisms (institutionalized with the relation established with stakeholders). Through these mechanisms, and in compliance with UNESCO guidelines, citizens are offered quality of life in two ways: individually as a social, educational, and participatory tool; and socially as a generator of opportunities for the development of innovation, technology, and the economy.

Over the last five years, transparency policies, within a framework of reflection on their virtues and their structural limits (Tsetsura and Kruckeberg 2017; Crain 2018) have evolved and no longer fall under the much more generic rubrics of "good practices" and "corporate social responsibility", and they have also abandoned the static approach that differentiated three types of transparency (Heikkilä et al. 2012): information on the company, news making, and accountability. Similarly, participation in both the content and the structure of media is generally poor and referential, and new communication and innovation strategies need to be explored (López-Cepeda et al. 2019). The same is true in the management of the communities, which is rather unattractive and very much conditioned by the rigid structures of corporations (López-Golán et al. 2019).

The communication of transparency policies is based on the validity of the values of public broadcasters, which are institutionalized by the BBC. The public media, therefore, generate communicative narratives on the basis of the contribution they make to society, adapting to their demands in the face of the emergence of new needs (Rodríguez-Castro and Campos-Freire 2019). Over the last few years, the tests of public value have been undertaken in places such as the United Kingdom, Norway, or the Netherlands, thus questioning the ex ante validity and necessity of these mechanisms in the context of a multimedia platform (Rodríguez Castro et al. 2019).

1.2. The Management of Public Service Media (PSM) and Their Journalistic Independence

Public broadcasters, especially in Europe, are the main state-owned media companies (Donders 2011). In the last few decades, they have lost ground in the media system as a result of the emergence of a great deal of privately owned media, and more recently, with the advent of new internet-based platforms. This fact has bolstered the interests of those in charge of public radio and television stations in generating added value through reputation enhancement and the promotion of the notion of public service media (PSM).

Public broadcasters are experiencing a constant crisis that involves such aspects as their legitimacy before citizens and their very business model, which conditions the necessary adaptation to the digital ecosystem. They also face the opposition of private operators; populist political parties, which call their existence into question; and the constant thirst for manipulation by the governments (Campos-Freire et al. 2020). In fact, the political proposals at a European level are linked to the reinforcement of their journalistic independence and to the establishment of greater collaboration tools among EU members, including the creation of a European public broadcaster (Rodríguez-Castro et al. 2020) in the new digital environment, driven by a process of active transparency and committed to such values as sustainability and the control of fake news.

As far as management is concerned, there are four major models for the management of public broadcasters (Hallin and Mancini 2008), which are not mutually exclusive, as hybrid formulas may also be used. The first of these models is the government model, which is characteristic of the more recent democracies in Southern Europe (Greece, Portugal, or Spain), where there is a more or less explicit control on the part of the government or the political majority in parliament. Second, there is the professional model, which is exemplified by the BBC in the UK or the Canadian public broadcaster, with a solid tradition of independence from the political power and a model of institutionalized participation by the journalists working in the public broadcaster. Then, we have the so-called parliamentary model, or model of proportional representation, which is very similar to the first one, but which depends on political parties (for example, RAI). This specificity is the consequence of the distribution and balances of power within the state, which seeks to represent a wider political majority or, at least, the government coalitions. Finally, there is the civic or corporate model, where control goes beyond political parties to include social groups, thus establishing connections with stakeholders.

There are several aspects that have a bearing on the transparency and accountability of public broadcasters, most notably the management model of the corporations and the relation that the state (whether it is through its subsidy policy or the defining of news) establishes with the media system as a whole. In this regard, the tension between journalistic independence and control has effects on news contents and editorial policies, but also on transparency policies. It has been the digital environment that has more strongly prompted the transformation of the participation and the relation between members of the public and PSM. As a result, among the main innovations is monitoring (Alonso-Muñoz and Casero-Ripollés 2017), which is able to articulate mechanisms that lead to greater citizen involvement in the structures of participation of the media, taking into account the articulation of the communicative and legal dimensions. It is for this reason that the transparency policies of public broadcasters are determined by a fourfold condition: (a) the management model, (b) its relationship with the state and the political system, (c) its commitment to the dissemination of the values of the PSM, and (d) an effective resolution of the tension between government control and journalistic independence.

1.3. Funding and Management Models of the Countries Analysed

The funding models of the European public broadcasters are diverse and have been influenced in the latest decade by three fundamental aspects that have indirectly had an impact on an increased demand for transparency: (a) the economic crisis that started in 2008, (b) the loss of legitimacy of public services, and (c) the process of technological convergence. These models, by virtue of their income, rely on four major sources (Lowe and

Berg 2013): license fees (the most widely used), advertisement, subscription, and subsidy, as well as others such as the marketing of broadcasting rights (Juanatey-Boga et al. 2018). On this basis, the European Broadcasting Union laid down four essential principles for the funding system of the European public broadcasting service: stability, independence, accountability, and transparency (EBU 2017). In the last decade, and on the basis of global figures provided by the European Audiovisual Observatory, a number of differences can be identified in the funding of broadcasters, which need to be approached on the basis of the different models (Juanatey-Boga et al. 2018): firstly, the countries in the south of Europe have not seen their funding increased, whether because of deep cuts (Portugal and Spain) or the freezing of the license fee (France and Italy); secondly, the countries under the corporatist model have seen a moderate increase (Germany), a remarkable increase (Belgium), or a huge increase (Sweden) in funding; finally, public broadcasters from the Atlantic model have had different outcomes, with increases in the case of the British public broadcaster and a cut in the case of Ireland. Overall, the German and British broadcasters (ZDF and BBC, respectively) stand out as far as income is concerned, whereas the funding of the Spanish RTVE is scarce relative to the size of the country (Corbella 2020).

Another fundamental aspect that has historically influenced the funding of European public broadcasters has been the role of the state (not only as an auditor but also as the proprietor) and its influence on the media system. In this regard, each of the models described has common, as well as divergent, characteristics. For instance, in the polarized plural model of Southern Europe, in both Spain and Portugal, the public broadcaster was not conceptualized as a public service (Bustamante 1989). In Portugal, the management of the broadcaster was not subject to control (Traquina 1995), and in Spain, it has gradually evolved from a mixed commercial state-owned system (with advertising and subsidy) to the current one, where advertising has been abolished as a consequence of the demand by the European Commission (which has also affected France) on the rates of business volume of the telecommunications operators (Jivkova Semova 2011). In the case of Italy, unlike the rest of the neighboring countries, it was conceptualized as a public service, although, in 1976, the Italian Constitutional Court "declared void the monopoly of the RAI and from that year until 1990, Italy had no law governing the public broadcaster" (Hallin and Mancini 2008, p. 115), which also had an impact on its financing. As to the economic management of the liberal model, the news companies are more subject to commercial interests. A good example of this is the BBC or the RTÉ, where political independence comes with certain economic independence. Finally, the corporations in the democratic corporatist model show notable differences in their methods of financing, partly due to the internal plurality of the state and the participation of sub-state agencies in governance.

2. Materials and Methods

This article is a continuation of the line opened by previous studies on the transparency and access to public information as a theoretical and epistemological construction (López-López et al. 2021), as well as those works seeking to analyze the public information on the websites of broadcasting corporations. A mixed methodology has been used, consisting of a nominal group (Silverman 2016) combined with a content analysis technique (Krippendorff 2004) in the form of a questionnaire and a strategy sheet with ad hoc indications. The study consisted of three parts.

Firstly, a nominal group was made (Gallagher et al. 1993) with the 24 scholars who were asked to assess 31 aspects of transparency on the basis of the following question (Table 1): "Rate in a scale of 1 to 5, with 1 being least important and 5 most important, the aspects that must be considered by public broadcasters and their corporations as the subject of active publicity and transparency in their respective websites". In this regard, all 24 respondents were selected taking into account their education (all of them hold a PhD in the field of social Sciences) and on the basis of geographical diversity (we had participants holding teaching positions in Latin America, Europe, and the USA). Most of the scholars selected for the nominal group were researchers in the field of journalism, audio-visual

communication, political science, and sociology, although, to a lower extent, they also included professionals from public television networks or companies and managers of news companies working in a variety of departments. Their connection with transparency policies and governance management is underpinned by two aspects: first, most of them had contributed to the project "New values, governance, funding and public audiovisual services for the Internet society: European and Spanish contrasts" (2019–2021) financed by the Spanish Ministry of Innovation and Universities, as well as to the project "Indicators of governance, funding, accountability, innovation, quality and public service in European broadcasters applicable to Spain in the digital context" (2016–2018), financed by the Spanish Ministry of Economy and Competitiveness. Secondly, they had contributed to research into regulatory policies and strategies involving the European Union (EU), the states, and the corporations themselves on transparency issues. A balanced participation between men and women was achieved, and the anonymity of their responses was ensured. On the other hand, the 31 aspects included indicators that were used in previous studies (López-López et al. 2017), as well as new ones, in order to establish a list of indicators arranged on the basis of the importance they were given. The list is presented in tables and grouped in blocks.

Table 1. Indicators discussed.

Block	Indicator
Institutionality, governance, and stakeholders	History of the broadcaster Applicable laws and regulations Charter of the corporation Members of the Board of Governors Declaration of personal assets by the members of the Board of Governors CV of its Director General Information on CSR List of stakeholders Codes of good corporate practices Accountability report
Economic and infrastructure management	Budget and financing Monthly budget performance report Buyer's profile Exploitation of rights to big events Breakdown of investment in R&D&I Directory of job titles Equality policies Corporate sustainability Social sustainability Innovation, automation, and big data strategies
Production of information, participation, and inclusion	Style guides/Editorial codes of practice Information on the Viewers' Ombudsman Audience share data Quality assurance mechanisms Quality control mechanisms against fake news Queries and complaints channels Archive of contents Digital literacy activities Manners of participating in structures and/or contents Directory of experts and opinion-makers Production of political news and the representation of social groups

Source: prepared by the authors.

Secondly, and on the basis of the results of the nominal group and following a bibliographic review, the second part of this analysis added 12 new indicators on transparency and accountability in European public broadcasters so that they may be incorporated into the current methodologies of study in this field, including specific aspects on the digital revolution, accountability, and equality. They are grouped in three major blocks (institutionality, governance, and stakeholders; economic and infrastructure management; and the production of information, participation, and inclusion). As a result of the contribution of the nominal group, it is suggested that for qualitative purposes seven communication strategies on public broadcaster transparency should be added, which will be incorporated into the quantitative analysis of the indicators.

Thirdly, through the above panel of 12 indicators divided into three blocks, and taking into account all 7 strategies, the accountability processes and the transparency policies of the following TV broadcasters were studied on the basis of the criteria of publicity, expositive clearness, and accessibility between 20 March and 20 April 2021 on the basis of work organization criteria and the availability of researchers (Table 2): RTVE (Spain), RTP (Portugal), France TV (France), RAI (Italy), BBC (UK), RTÉ (Ireland), ZDF (Germany), VRT (Belgium), and SVT (Sweden). Each indicator was assigned a value on a scale out of 100: achieved (✓), partially achieved (P), and not achieved (X), with the following scores of 8.3, 4.18, and 0, respectively. The choice of these corporations was based on economic and demographic criteria (Spain, the UK, Germany, Italy, and France), on their characteristic regional model (Belgium), and because they represented the models described by Hallin and Mancini (2008) on Comparing Media Systems (Portugal, Ireland, and Sweden). As a result, the public broadcasters of the polarized pluralist model, those of the North Atlantic or liberal models, and the democratic corporatist model are represented. In the analysis conducted by the authors at the beginning of the 21st century, only 18 western democracies were analyzed (nine countries from Northern and Central Europe, five countries from Southern Europe, and four from the Atlantic), with two preconditions: (a) the existence of competitive political systems with free elections, and (b) the existence of public and private media within a consolidated system with clear rules. On this basis, the present article takes into account this analysis to select several public corporations from each model while excluding other states such as, for instance, those from Central or Eastern Europe.

Table 2. European public broadcaster corporations analyzed.

Model	Country	Corporation
Polarized pluralist	Spain	Corporación de Radio y Televisión Española, S. A. (RTVE)
	Portugal	Rádio e Televisão de Portugal (RTP)
	France	France Télévisions (France TV)
	Italy	Radiotelevisione Italiana (RAI)
North Atlantic Model	United Kingdom	British Broadcasting Corporation (BBC)
	Ireland	Ireland's National Television and Radio Broadcaster (RTÉ)
Democratic Corporatist Model	Germany	Zweites Deutsches Fernsehen (ZDF)
	Belgium	Vlaamse Radio- en Televisieomroeporganisatie (VRT)
	Sweden	Sveriges Television (SVT)

Source: prepared by the authors.

The general objective of this study and its research was to ascertain the existence of policies of transparency in European public broadcasters. The research questions were the following:

- Q1: Are the new aspects related to equality, the environment and digitalization the ones that are the most highly valued by experts and corporations?
- Q2: Is the production of news, especially political news, what determines part of the justification strategies by European public broadcasters as a public service?
- Q3: What are the main communication strategies used by corporations in order to communicate transparency?
- Q4: Is the level of transparency of broadcasters determined by a specific model of relation between the political system and the media system?

3. Discussion

Authors should discuss the results and how they can be interpreted from the perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible. Future research directions may also be highlighted.

3.1. The Opinion of Scholars: A Ranking of Transparency Values for Broadcasting Corporations

Of the rating (from 1 to 5) made by the group of experts on 31 aspects susceptible to being actively published on the websites of the broadcasting corporations, several issues are noteworthy (Table 3). The first is that all of them have ratings over 3.5, which means that great importance is given to each and every one of them. Equally, the difference between the highest (4.58) and the lowest (3.5) rating is slightly over one point, despite the number of responses obtained. On the other hand, the two indicators with the highest rating in importance are "Budget and financing" (4.58) and "Charter of the Corporation". In other words, the expert approach to transparency is focused on key elements of an economic, financial organizational, or managerial nature. This fact is underscored by the fact that "CV of the Director General "(4.37); "Members of the Board of Governors" (4.33), and "Codes of good corporate practices" (4.33) are all in the first quartile. Other aspects that have to do with the very promotion of transparency, such as accountability, have a more modest rating (4.16), and the same is true of those related to the direct participation of members of the public and stakeholders ("Manners of participating in structures and/or contents"), which takes position 24 out of 31. Finally, it is particularly remarkable that the lowest ratings pertain to those aspects more closely related to purely journalistic aspects such as "Archive of contents" (3.62) or "Directory of experts and opinion-makers" (3.50), which has the lowest rating.

Upon grouping the aspects put to the nominal group of experts on the basis of previous literature on the indicators associated with transparency and access to public information among broadcasters, the differences between the first block ("Institutionality, governance and stakeholders"), the second ("Economic and Infrastructure Management"), and the third ("Producing information, participation and inclusion") are minimal, such that specificities must be sought individually within each block (Figures 1–3).

Generally, the institutional aspects have more divergent ratings, thus underscoring the importance of the information at the top level, (a sort of "strategic apex"), while on the lower level we find those with a more referential nature (such as the "History of the broadcasting corporation" or the "Declaration of personal assets by the members of the Board of Governors"). Something similar occurs in the second block, with a positive assessment of "macro values" such as the equality strategy or corporate sustainability, but placing at the bottom more technical aspects that are harder to apprehend by the members of the public ("Buyer profile", "Exploitation of rights to big events", "Breakdown of investment in R&D&I", or "Monthly budget performance report"). In the last block, which consists of aspects of a more purely journalistic and participatory nature, a split can be seen between two types of values: the ones with the highest rating, which are

those related to quality assurance, the identification of fake news, citizen protection, or style guide and, on the other hand, the ones with the lowest rating that have to do with very specific aspects of the journalistic profession (political news, content participation, directory of experts) or audience share data.
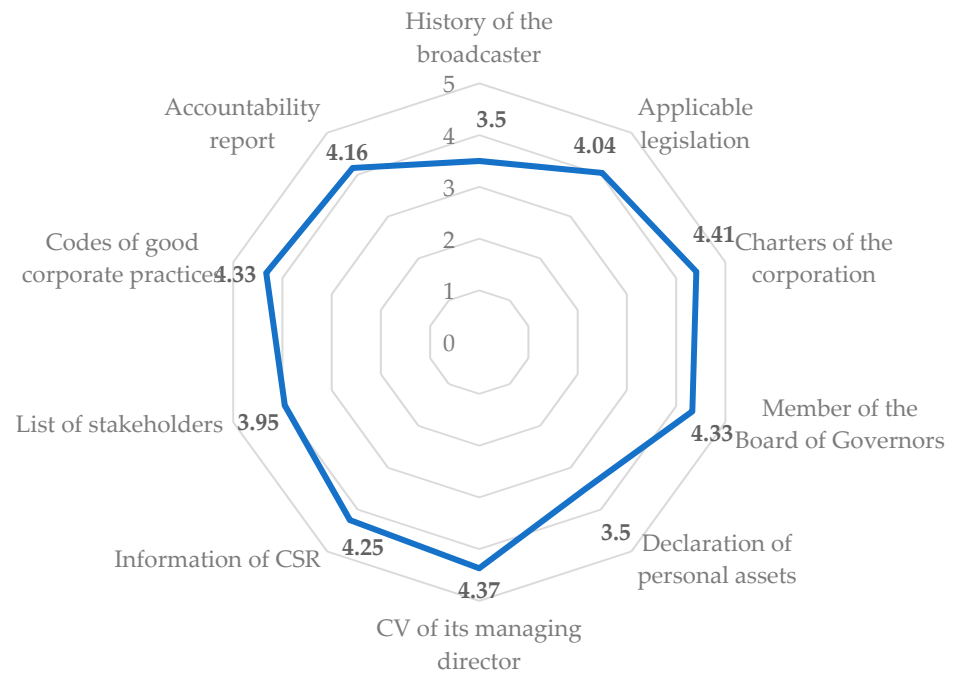
Figure 1. Average rating of responses by experts on the items that make up the "Institutional, governance, and stakeholders" dimension.
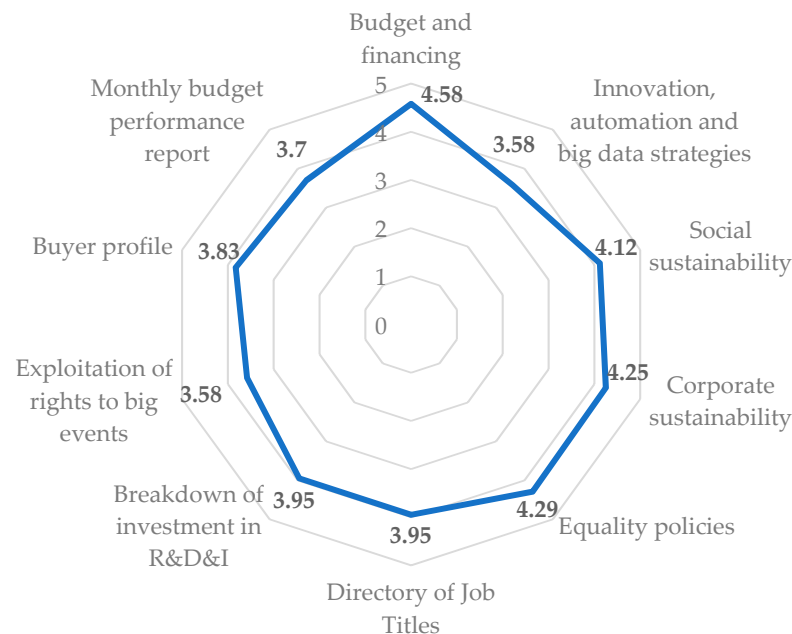
Figure 2. Average ratings of responses by experts on the items that make up the "Economic and infrastructure management" dimension.
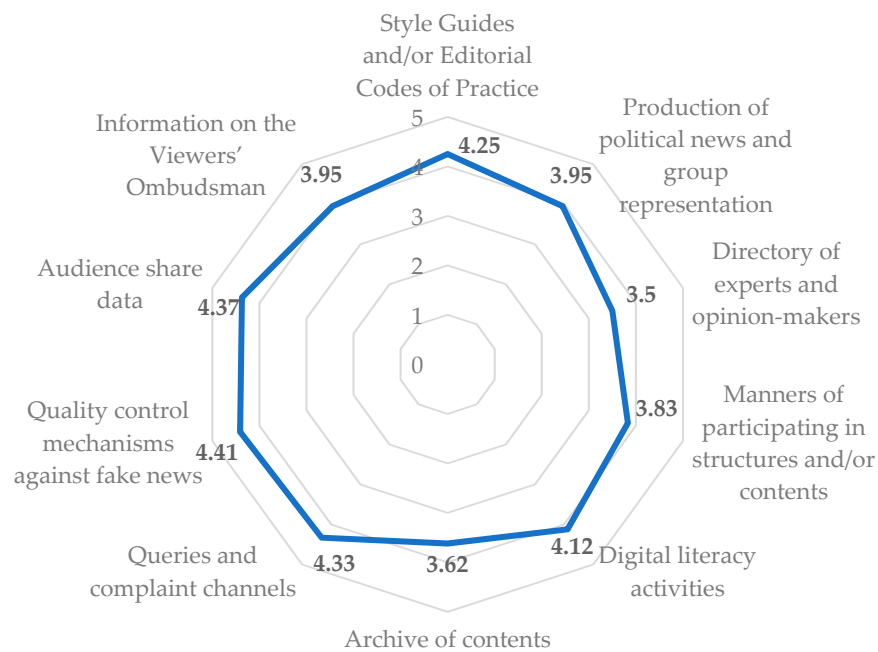
Figure 3. Average rating of responses by experts on the items that make up the "Production of news, participation, and inclusion" dimension.

Table 3. Sorted list of transparency indicators on the basis of experts (average).

No.	Indicator	Average
1	Budget and financing	4.58
2	Charter of the corporation	4.41
3	Quality control mechanisms against fake news	4.41
4	CV of the Director General	4.37
5	Quality assurance mechanisms	4.37
6	Members of the Board of Governors	4.33
7	Codes of good corporate practices	4.33
8	Queries and complaint channels	4.33
9	Equality policies	4.29
10	Information of CSR	4.25
11	Corporate sustainability	4.25
12	Style Guides/Editorial codes of practice	4.25
13	Information on the Viewers' Ombudsman	4.25
14	Accountability report	4.16
15	Social sustainability	4.12
16	Digital literacy activities	4.12
17	Applicable legislation	4.04
18	List of stakeholders	3.95
19	Breakdown of investment in R&D&I	3.95
20	Directory of job titles	3.95
21	Audience share	3.95
22	Production of political news and representation of social groups	3.95
23	Buyer profile	3.83
24	Manners of participation in structures and/or contents	3.83
25	Monthly budget performance report	3.7
26	Archive of contents	3.62
27	Exploitation of rights to big events	3.58
28	Innovation, automation, and big data strategies	3.58
29	History of the broadcasting corporation	3.5
30	Declaration of personal assets by the members of the Board of Governors	3.5
31	Directory of experts and opinion-makers	3.5

Source: made by the authors.

3.2. An Integrated Model of Assessment: Strategies and New Indicators

As a result of the review work and the discussion of the data and the opinions of experts, seven potential communication strategies have been identified that are associated with transparency among European public broadcasters. Using the information on the websites of these corporations, the presence or absence of each of them can be registered.

- Strategy number 1: governance and regulation policies in the digital era. One of the main tensions (control vs. independence) of public broadcasters is solved by means of the proper management of governance and the publicity of regulation policies (Puppis 2010). These should be understood as those linked to decision making mechanisms and the control and management of collective resources.

- Strategy number 2: the institutionalization of participation and inclusion from the digital domain. The COVID-19 pandemic has demonstrated the importance of establishing and publicizing new participation strategies through the web, a central element for all public broadcasters. Thus, the institutionalization of the audience is established from two models (Carpentier 2011): a structural-related participation model and a content-related participation model. This strategy may be operated through proper digital channels that go beyond simple complaint letterboxes or vague mechanisms for rating programs.

- Strategy number 3: the relation with stakeholders. Whether directly or indirectly, European public broadcasters should systematically incorporate their relationship with stakeholders. This relationship should be accomplished in two phases. The first phase should be geared towards the creation of a great database that is built collaboratively, where the set of associations, institutions, or target audiences, including those resources that are susceptible to being shared and that will result in a strengthening of the connections is clearly and explicitly detailed. The second phase, mediated by applied technologies, should be aimed at institutionalizing a model of direct interaction between those in charge of the media and the stakeholders by managing private spaces, sharing operations plans, or action assessment tests.

- Strategy number 4: constant quality testing. Transparency policies must also be aimed at getting to know (and publish) what the journalistic approach of the corporation is, as well as its independence and quality assurance mechanisms. Therefore, there should be a comprehensive strategy on the ethical pattern for the processing of information while preserving its independence. This quality mechanisms or tests must be twofold: though surveys and by incorporating big data into market research.

- Strategy number 5: equality and integration. Policies promoting equality between men and women, as well those aimed at integration (in the widest sense of the term), are indispensable values in both public services and any other type of organization. Consequently, television broadcasters should include in their public information operative plans that clearly indicate the equal opportunity policies in both the strictly employment domain and the managerial positions. It is also indispensable that this is also true among the most popular faces and voices of the broadcasting company, whether they are presenters, collaborators or invited experts. As far as the latter is concerned, emphasis should be made on feminizing science. A good action is publishing a database that includes male and female experts in a variety of fields.

- Strategy number 6: (green) economic sustainability. There is a model aimed at visibilization; firstly, of the money the corporation receives from the treasury, the subsidies, or even advertising. Secondly, a criterion of investment and expenditures is clearly and explicitly detailed. Similarly, it is important to take into account that a good strategy for economic sustainability is the result of the clarity of labor relations (directory of job titles, for instance) and a management of collective resources with the systematization of accountability, emphasizing the public service elements, the business model, and the exploitation of rights.

- Strategy number 7: corporate sustainability (green). The commitment to sustainable development and conforming public broadcasters to the agenda 2030 are indispens-

able. As well as reporting on issues such as climate change and how it affects citizens as a whole, corporate sustainability must be an integral part of its corporate social responsibility, permeating the whole corporation and its philosophy of work. A specific aspect could be informing on the impact that television or radio actions have on the ecosystem and what has been done to minimize or reduce them as much as possible.

The second part of this analysis added 12 new indicators on transparency and accountability in European public broadcasters (Table 4), including specific aspects on the digital revolution, accountability, sustainability, and equality.

Table 4. New transparency indicators put forward.

Block	No.	Indicator
1. Institutionality, Governance, and Stakeholders	1	Is there a specific section on the recommendations by the European Broadcasting Union with regard to the value as a public service of the corporation?
	2	Is information provided on the parliamentary mechanisms for the control over the corporation?
	3	Is there a person in charge/a report or similar mechanism on digital strategies?
	4	Is there a legislation, instruction, or strategy on transparency and good governance?
2. Economic and Infrastructure Management	5	Is there a laboratory or a similar department in charge of driving the development and transfer of new technologies and innovation applied to media?
	6	Is there a specific section or similar on the web devoted to CSR?
	7	Are specific sections related to the environmental sustainability of the organization identified?
	8	Is there a policy of equality between men and women?
3. Production of Information participation, and Inclusion	9	Are there terms of use for the forums and virtual communities available in the virtual communities on the website?
	10	Is there a public directory with the community experts on a variety of topics to which other media may resort to gather views and opinions?
	11	Are there effective channels for audience participation?
	12	Is there a formula on working in the context of digitalization, automation, robotization, or big data?

Source: made by the authors.

3.3. Rating of European

- RTVE: commitment to the digital environment (Strategies 1 and 4/66.40 points out of 100).

In the corporate section of the website of RTVE (https://www.rtve.es/corporacion/, accessed on 20 March 2021), there is extensive public information on institutional and economic issues, but there is not a clear transparency or good governance policy. Of the great strategies assessed, RTVE is oriented towards strategy number 1 and strategy number 4, whereas the rest are neglected. By way of illustration, no report has been published since 2018 on the fulfilment of the public service mission based on the 10 principles of the UN Global Compact with its stakeholders, which identifies progress in human rights, labor issues, or the environment. On a positive note, a "technological commitment" is adopted, whereby it is explicitly mentioned that the corporation is involved in the development of projects that reflect a commitment to applied technologies and sustainable development, although as far as the latter is concerned, no specific actions are mentioned (indicator 7).

One of the major achievements and commitments by RTVE is "Impulsa Visión RTVE", which consists of three lines of work: the first one is aimed at driving innovative projects by professionals; the second is aimed at companies or academic institutions; and finally, the third is aimed at ideas or research work in higher education. At the beginning of 2021, the corporation developed an initiative to create real-time signal quality assessment tools and the use of artificial intelligence to measure the degradation between the processes of distribution and emission, which validates indicator number 12. It has also acceded

to the Digital Agreement on the Protection of Persons promoted by the Spanish Data Protection Agency.

Finally, exemplifying the clear commitment to the digital agenda and the breakthroughs in robotization, the application requirements for the third edition of "Impulsa Visión RTVE—Ayudas a la Investigación para Estudios Oficiales de Post-grado" (2020) include very specific aspects on AI: "Main AI technologies applied to automatic writing of text, scientific, technological, industrial foundations and feasibility of their use in audio-visual media". On the negative side, further efforts are required on the part of RTVE to promote and communicate a more institutionalized participation in its structure (indicator 11).

- RTP: static and poor information (with no strategies/24.90 points out of 100)

It may be generally said that the publicity of the different strategies that have been considered as prior actions in this article is rather poor for Rádio e Televisão de Portugal (https://www.rtp.pt/, accessed on 25 March 2021), where only some (unstructured) aspects with regard to equality between men and women (indicator 8) merit some mention. In fact, the information available on the website is rather static, with rather watertight sections and outdated reports (a case in point is the sustainability report, which has not been updated since 2014). On the positive side, and as noted above, there is the Plano de Igualdade de Género, also updated in 2021, where a diagnosis of the situation of women in the corporation is made along with proposals for improvement. There is a generic statement on the social responsibility of the RTP, but with no operational plans or specific actions that can be followed up. There is no institutionalized or occasional participation policy either that allows citizens to participate or know about the main decisions taken by the corporation. Mention can be made of the fact that, although it does not fall under any specific transparency strategy, a generic code of ethics and a plan for fighting corruption are published. There is no relation with stakeholders beyond purely financial or quantitative issues, nor there is a digital policy or one focused on work and innovation involving applied technologies. Therefore, it may be said that the RTP does not show any strategy on its website and poor public information on the new indicators reviewed in the audit.

- France Télévisions: equality and inclusion (Strategies 2 and 5/55.95 out of 100)

The corporation France Télévisions (https://www.francetelevisions.fr/groupe, accessed on 25 March 2021) has a great deal of information on ethical aspects, good governance, CSR (indicator 6) and on participation on its website, which shows its clear commitment to a transparent management, seeking an institutionalized involvement of both citizens and stakeholders. In fact, it explicitly includes an ethic charter that incorporates such aspects as fighting fraud and corruption, the prevention of conflicts of interest or the respect for the environment, which is strongly focused on governance (indicators 1 and 2). Strategy number 2 is highly developed as there are new technology-mediated mechanisms in the form of a specific platform to this end, which makes it possible that different audiences participate in the business development and the contents of the corporation (mainly through the Conseil Consultatif des Programmes et aux e-Ateliers du Club Francetv).

Strategy number 5 is also reflected on the website. There is actually wide and extensive information (of a cross-sectional nature) on professional equality between men and women as a number of agreements are published. This strategy is of an inclusive nature (for instance LGTBI people), which is given concrete expression in a double certification: the seal of diversity and the seal of professional equality, which also allows for the validation of indicators. Additionally, widely documented are strategies number 6 and 7, which address environmental sustainability from a business and economic approach, albeit with no specific actions. They include mobility, resources, industry, energy, and the climate. On the negative note dragging down its rating, little or nothing is mentioned with regard to work on information and knowledge technologies, thus revealing an ill-defined digital strategy with no terms of use for both forums and virtual communities.

- RAI: preventing corruption (Strategies 1, 3 and 4/49.80 out of 100)

The Radiotelevisione Italiana has no site of its own and the dissemination of corporate strategies is included in the lower section of the general website (https://www.rai.it, accessed on 30 March 2021). It provides, however, very complete information on the company mainly based on strategies 1, 3, and 4. There is a clear policy of transparency and good governance by publicizing the decisions taken (governance), the relation with stakeholders through an ethical code (on rights, duties, and responsibilities), constant quality checking, and a section on corporate social responsibility (indicators 1, 2, 4, and 6). Testing is made by the marketing department of the RAI by resorting to different types of polls and surveys on contents and their public perception by the audience.

Another remarkable aspect of the Italian public broadcaster has to do with good governance, which is reflected by three aspects: firstly, its own space of "transparency" for the corporation that is orderly, clear, and understandable; secondly, a plan of transparency and corporate communication (strongly focused on hiring personnel); finally, a three-year scheme for the prevention of corruption (2021–2023) in aspects of management and coordination. Among the less defined or non-existent strategies are those having to do with equality (indicator 8), internal and external sustainability, or the digital agenda (indicators 5 and 12, respectively). In the case of gender equality, its focus is exclusively on contents (i.e., in the representation of women in television and radio contents), with no specific section on the news company. Similarly, "sustainability" is addressed only as far as accounting is concerned, but not with regard to the environment or its social dimension. Therefore, we cannot speak of green strategy in the case of RAI.

- BBC: an integrated approach (Strategies 1, 3, 4, and 7/83.00 points out of 100).

The British Broadcasting Corporation integrates through its website (https://www.bbc.com/aboutthebbc/, accessed on 4 April 2021) a large number of the new strategies designed for public broadcasting corporations. Generally, the transparency and accountability processes are very clear and are found across the website, as opposed to in a specific section. Its regulation policies are perfectly defined by providing a great deal of information and many (updated) reports where the different stakeholders participate on a sectorial basis, working as effective feedback mechanisms (Strategy 3). This translates into public value tests to measure the impact of the actions of the corporation on both society and the stakeholders. Similarly, the commitment to real equality between men and women (indicator 8) is among the priorities of the organization, as well as environmental and corporate sustainability (indicator 7). In fact, an extensive section of its corporate information is devoted to explaining the environmental sustainability measures it has in place, including Albert, the first carbon calculator used in television production that works out the carbon impact of making a program, thus leading to a reduction of the carbon footprint when producing all types of contents for the BBC and the audio-visual industry in the UK, as it is openly provided. On the negative side, it is not clear what the strategy of the corporation is with regard to the new challenges of the digital society beyond vague references to fighting fake news and the implementation of fact-checking. In fact, although there is a person in charge of digital strategies in the organizational structure, not a single specific action can be identified that is aimed at, for instance, the development and promotion of automation, robotization, and/or big data-based technologies applied to work.

- RTÉ: the green vision (Strategies 2, 6, and 7/74.70 points out of 100).

The company in charge of the management of public radio and television in Ireland (RTÉ, https://www.rte.ie/, accessed on 8 April 2021) has consolidated a policy of transparency that strengthens internal issues but neglects other community-related aspects and those related to stakeholders. On the other hand, one of the greatest efforts by this corporation focuses on strategy number 2 by institutionalizing inclusion (as far as content is concerned) from the digital domain, thus making an explicit acknowledgement of diversity in Ireland (diversity and inclusion in RTÉ). However, if there is something that characterizes the Irish broadcasting corporation, it is its extensive green strategy (sustain-

able and responsible as the fourth value of the company), its social (strategy 6), and its organizational (strategy 7) aspects. In fact, there are four sections in which environmental sustainability is mentioned: "Inside RTÉ"; "RTÉ and Sustainability"; "Recognising Our Sustainability" and "Access to Information on the Environment" (AIE). It is also mentioned in strategic documents for the corporation such as the "RTÉ Internal Audit Charter" or "Environmental Policy", where emphasis is made on two strategic objectives: first, to reduce the environmental impact of the production process; second, to contribute to raising awareness among the organizations within the industry of the environmental aspect of their stated vision and their involvement in audience participation. In fact, the organization has been recognized by many national and international awards that endorse its respect for the environment.

On the negative side, other than a mention in the "Public Service Statement 2015", the corporation does not implement a digital strategy nor details a clear business model focused on the horizon of 2030. There is no active mention of aspects such as automation or the existence of a laboratory or department whose objective is the development and transfer of new technologies and innovation to society.

- ZDF: an expansive view of transparency (Strategies 1, 6 and 7/74.70 points of out 100).

The website (https://www.zdf.de/zdfunternehmen, accessed on 12 April 2021) of the Zweites Deutsches Fernsehen (ZDF, Germany) has consolidated a policy of transparency (a culture of transparency) that is strongly focused on institutional and economic aspects, with a great deal of information and a data architecture with "internal information open and transparent to the outer world". This information is extremely detailed and meshes with most indicators studied (it obtains a rating of 74.70 points out of 100), and the content of each section is clearly explained, acknowledging and justifying that some data are not included, and clarifying how data should be interpreted.

The two master transparency strategies of the corporation have to do with the following aspects: (a) extensive information and active publicity of the regulation policies, as well as of the supervisory and decision-making bodies (and accountability for such policies) and the follow up of aspects associated to aspects of public service value, such as the European Broadcasting Union; (b) fusion of the internal and external sustainability of the organization, with a clear economic and management strategy of the collective resources, as well as a commitment to their sustainable development with regard to society, adapting the mission, vision, corporate social responsibility, actions, and Public Service Value of the broadcasting company to this purpose. This second strategy is widely developed in a variety of spaces with such specific actions as "Climate protection and climate policy", "Green production", "ZDF Sustainability Objectives", "Sustainability", or "Commitment to society". However, the digital strategy and the participation policies (structural-related participation or content-related participation) are not sufficiently explained or are confusing. In this sense, other than "generalities", management reports do not include a comprehensive sequence that leads to the identification of aspects on the future of the broadcasting companies in the new digital society (indicators 3, 5, and 12).

- VRT: Quality and equality (Strategies 4 and 5/74.70 points out of 100).

The information on the website of Belgium's VRT (https://www.vrt.be/nl/, accessed on 14 April 2021) is presented in a chaotic way, which prevents quick access to each of the sections through its site map. Its transparency policy is based on honesty. It explicitly states that as a limited liability company under public law, it may not publicize all the information with regard to its operation as it works in a competitive environment where disclosure of detailed information may harm its interests. One of its clearest strategies has to do with quality and its associated quality assurance mechanisms (strategy 4): its aggregated value takes into account the social relevance of VRT, as well as citizen "expectations". It has, therefore, made a strong commitment to research into media, media literacy, and innovation. The latter ties in with digital aspects as well as reports and news that reflect on the impact of artificial intelligence on the credibility of news. In fact, part of this information

is included in the document "15 trends for the future", which operate as indicators in the decision-making process of the news company. Another important strategy (5), which also falls under indicator number 8, is that of equality and inclusion, with specific sections for language and sexual diversity, although paying particular attention to gender equality. In fact, there is the so-called "Women's Counsel", which provides the corporation with advice.

Business sustainability and social impact are included in a static section entitled "We are committed to sustainability" or in a subsection under the title "Sustainable entrepreneurship". However, in spite of including specific actions such as the tree planting campaign, they are not coordinated with the general strategy.

- SVT: Quality testing (strategies 1 and 4/58.1 points out of 100).

The communication of accountability on the website of Swedish public broadcasting corporation SVY (https://omoss.svt.se/, accessed on 20 April 2021) does not meet most of the new indicators put forward (yielding a rating of 58.1) as it is almost exclusively focused on strategies 1 and 4, while virtually neglecting the rest. In fact, as clear evidence of its independency, the letter of presentation of SVT explains that the corporation is owned by a foundation, "not being the property of the state or subject to commercial interests, thus ensuring its independence" so that the "control-independence" dilemma is resolved through this philosophy. Another positive point is the fact that its relationship with its different audiences takes place following a standardized protocol: surveys and polls are available that score the value that the broadcasting organization has for both individuals and the society on three values: credibility, quality, and trust. This fact is reinforced by an external survey that addresses public confidence in the media, presented as quality assurance. On the other hand, while there is not a digital policy "as such", in the "digital services" section, there is actually information aimed at suppliers on the multiplatform development of the entity. This, although it is not mentioned in the organizational objectives, does allow us to validate indicator 5 as "partially met".

SVT has superficial information on equality-related issues, with percentages of representation among journalists or in audio-visual contents, but it does not provide details about active equality policies, specific reports, or actions. The same is true for sustainable development, with vague references to "sustainability" in the section "Annual report, sustainability and current corporative report". The public corporation has been publishing public service reports since 1997, but they are not logically linked to specific actions under the 2030 agenda or to a comprehensive strategy.

4. Conclusions: Credibility and the Long-Standing Tension between "Control and Independency"

The transparency policies of European public broadcasting corporations and their communication are constructed on the basis of a number of strategies that provide value to the corporations and that must be up to the highest standards of accountability. Emerging social values such as equality and environmental sustainability in a digital framework force organizations to rethink access to public information. Transparency, both theoretically and practically, goes beyond the publishing of data and reports on the website of the corporation to become something that must be approached holistically.

The information obtained in this study confirms previous research into institutional and economic transparency, as well as into the transparency in the production of contents by European public broadcasters (Palau-Sampio 2017; Costa-Sánchez and Túñez-López 2017; Herzog et al. 2018), which differs from results in other latitudes (López-López et al. 2019) and which shows the specificities of the European media system (Campos-Freire et al. 2021). Similarly, this study shows the need to move forward towards more integrated and complex assessments with composite indicators so that other aspects such as social value or the efficacy in the management of the corporations can be measured (Blasco-Blasco et al. 2020).

The results obtained (Table 5), however, show an uneven commitment to the new social values, whether it is from the perspective of experts or the perspective of the audits conducted (Q1). In the former case, none of the values we brand as "new" appear on the first quartile as the most important according to experts; equally, there is not a clear "institutionalization" of them either on the websites of the corporations, with the exception of the two broadcasting corporations under the North Atlantic model (BBC and RTÉ). In the case of the broadcasting corporations of southern Europe, they have implemented very compartmentalized transparency strategies that are extremely focused on "classical" values such as the publicity of institutional and economic information. In this sense, there is no comprehensive policy on the role played by applied technologies in the development of news companies or their connection to audiences, with the partial exception of RTVE (the only public broadcasting company within this model together with France TV that has a passing mark after applying the indicators).

Another relevant aspect within the framework of news production can be summarized in a commitment by both experts and corporations to credibility to the detriment of plurality (Q2). The control of the production process of news (by citizens) leaves aside nominal issues (the existence of editorial boards, the corresponding ethical codes, regulatory and/or self-regulatory codes) to analyze in depth the need to publicize fact-checking mechanisms. Particularly striking is the fact that the directory of experts comes last in the assessment made by respondents. Also surprising is the low rating of the mechanisms of production of political news and the representation of the different social groups, which should be compared with the results of future studies.

As to the different strategies corporations have in order to communicate transparency (Q3), three broad conclusions can be drawn, each of them with its subtleties: the companies that come under the democratic corporatist model are committed to a strategy of transparency through quality assurance; those under the liberal or North Atlantic model generate data and actions aimed at a comprehensive green strategy; and, lastly, in the Mediterranean model there is a clear policy of governance and relation with the stakeholders, with the exception of TVE, which has a very clear commitment to the digital domain. Based on this, and as a response to the fourth research question (Q4. Is the level of transparency of broadcasters determined by a specific model of relation between the political system and the media system?) the answer is in the affirmative: the public corporations in the North Atlantic model are the ones with the best ratings, followed by those under the democratic corporatist model and last, those under the polarized pluralist model. This fact, as well as evidencing the possibility of applying these types of ideals to the analysis of transparency policies, introduces interesting lines of research on the influence of the control–independence tension on the dissemination of news.

To conclude, several aspects need to be identified that should be addressed in further research through the use of techniques such as interviews or discussion groups: (a) the existence of a strategy of transparency and good governance aimed at the use of applied technologies in the external domain of the corporation; in its relation with audiences; in the production of contents; and in research into automation, robotization, and big data; and (b) a corporate design aimed at the dissemination of aspects dealing with equality and sustainability that goes beyond annual reports, and one which is concretized in operative plans, actions, and measurements that make it possible for citizens to assess the efforts of the corporation to build a public broadcasting corporation that is committed to the new social values.

Table 5. Average indicators.

Indication No./Television Network	Polarized Plurarist Model				North Atlantic Model		Democratic Corporatist Model		
	RTVE	RTP	FRANCETV	RAI	BBC	RTÉ	ZDF	VRT	SVT
1. Is there a specific section on the recommendations by the European Broadcasting Union with regard to the value as a public service of the corporation?	P	X	✓	✓	✓	✓	✓	✓	✓
2. Is information provided on the parliamentary mechanisms for the control over the corporation?	✓	P	P	✓	✓	P	✓	✓	✓
3. Is there a person in charge/a report or similar on digital strategies?	✓	X	X	X	P	P	P	P	X
4. Is there a legislation, instruction, or strategy on transparency and good governance?	P	✓	✓	✓	✓	✓	✓	✓	P
5. Is there a laboratory or a similar department in charge of driving the development and transfer of new technologies and innovation applied to media?	✓	X	X	X	P	P	P	X	P
6. Is there a specific section or similar on the web devoted to CSR?	✓	X	✓	✓	✓	✓	✓	✓	P
7. Are specific sections related to the environmental sustainability of the organisation identified?	X	P	✓	P	✓	✓	✓	P	P
8. Is there a policy of equality between men and women?	P	✓	✓	P	✓	✓	✓	✓	P
9. Are there terms of use for the forums and virtual communities available in the virtual communities on the website?	✓	X	X	P	✓	✓	✓	✓	✓
10. Is there a public directory with the community experts on a variety of topics to which other media may resort to gather views and opinions?	X	X	X	X	P	X	X	X	P
11. Are there effective channels for audience participation?	P	X	✓	P	✓	✓	✓	✓	✓
12. Is there a formula on working in the context of digitalization, automation, robotization, or big data?	✓	X	X	X	P	P	X	✓	X
Total Score	66.40	24.90	53.95	49.80	83,00	74.70	74.70	74.70	58.10

Source: made by the authors.

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"Why Can't We?" Disinformation and Right to Self-Determination. The Catalan Conflict on Twitter

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Abstract: Disinformation does not always take the form of a fake news item, it also appears in much less evident formats which are subtly filtered into public opinion, thus making its detection more difficult. A method is proposed in this paper to address the study of "widespread" disinformation by combining social science methods with artificial intelligence and text mining. The case study chosen was the expression "right of self-determination" as a generator of disinformation within the context of the Catalan independence process. The main work hypothesis was that the (intentional or unintentional) confusion around the meaning and scope of this right has become widely extended within the population, generating negative emotions which favour social polarisation. The method utilised had three stages: (1) Description of the disinformation elements surrounding the term with the help of experts; (2) Detection of these elements within a corpus of tweets; (3) Identification of the emotions expressed in the corpus. The results show that the disinformation described by experts clearly dominates the conversation about "self-determination" on Twitter and is associated with a highly negative emotional load in which contempt, hatred, and frustration prevail.

Keywords: disinformation; misinformation; self-determination; rights; law; polarization; emotions; Catalonia; Twitter

1. Introduction

The cases of Trump and Brexit, frequently mentioned in studies dealing with disinformation (Blanco Alfonso 2018; Bergmann 2020; García and Chicaíza 2018; Lewandowsky et al. 2017; Osmunden et al. 2021; Rose 2017) highlight the intensive use of the so-called 'fake news' to achieve political goals. Nonetheless, creating or disseminating fake news are only ways to spread disinformation among the population, usually resorted to within the context of broader strategies which seek to generate confusion in public debate, thus creating what Wardle and Derakhshan (2017) have called "information pollution".

The objectives sought may be manifold. Bosworth (2019) described the building of an environmental discourse supported on scientific pseudo-evidence which was presented as an alternative to the official discourse with the aim of ensuring the construction of an oil pipeline in the USA. García and Chicaíza (2018) explained how the campaign to say "no" to the peace agreement in Colombia aimed to mobilise voters through the manipulation of their emotions, especially anger, to arouse their indignation; the European Commission (2020) denounced the elaboration of "false or deceitful accounts" around the coronavirus crisis which have intoxicated public debate and placed the life of many people at risk. There is usually a rejection of the "official knowledge" in these strategies, which increases in populist contexts, if it is stated that such knowledge has been produced by the elite (Bergmann 2020). Moreover, in the scenarios dominated by ideological polarisation that tend to accompany such contexts, disinformation has a stronger impact than in other

situations (Arce García et al. 2020), and polarisation is a factor in the Catalan case, where 48.7% of the population was against independence and 44.9% supported it (CEO 2021).

The situation described shows what Lewandowsky et al. (2017) has referred to as "the emergence of an alternative epistemology" which does not need to be grounded on evidence. Rather, it is a situation in which a large part of the population instal themselves in an "epistemological space" which has abandoned "the conventional criterion of evidence, internal consistency and the search for data." As a result, Lewandowsky added that the public discourse can no longer continue to be examined from the perspective of false information which can be denied, but as an *alternative reality*, as a worldview shared by millions of people.

1.1. Disinformation, Misinformation, Malinformation

Whoever creates or spreads false information may be aware of its falseness or not, and that has different implications. Thus, intent arises as a key element when studying disinformation as a phenomenon, as can be seen in many studies. According to the European Commission (2020), when information is shared with friends and relatives without knowing that it is false, we would talk about "misinformation", rather than about disinformation; it is the conscious act that turns it into disinformation. Claire Wardle (2017), a member of the World Economic Forum's Global Agenda Council on the future of information and entertainment, pointed out up to eight different reasons to create and disseminate false or deceitful content, and intent always stood out as a key variable. Srijan and Shah (2018) also categorised false information with regard to the author's intent (whether or not it is spread with the intention of deceiving) and the knowledge source (based on facts or on opinions).

UNESCO adopted in its manual "Journalism, fake news and disinformation" (Ireton and Posetti 2018) the scheme developed by Wardle and Derakhshan (2017), classifying the ways in which disinformation may appear—regardless of the format adopted by the (dis)information pieces—into three categories: "disinformation", when the person publishing the information is aware of its falseness; "misinformation", when they are unaware of it; and "malinformation", when the information is true but serves to do harm to something or someone (see Figure 1).

TYPES OF INFORMATION DISORDER

FALSENESS   **INTENT TO HARM**

Misinformation
Unintentional mistakes such as innacurate photo captions, dates, statistics, translations, or when satire is taken seriously.

Disinformation
Fabricated or deliberately manipulated audio/visual content. Intentionally created conspiracy theories or rumours.

Malinformation
Deliberate publication of private information for personal or corporate rather than public interest, such as revenge porn. Deliberate change of context, date or time of genuine content.

Figure 1. Information disorder. Source: Wardle and Derakhshan (2017).

The three aforementioned broad "information disorder" categories which arise from this scheme in turn give rise to various disinformation strategies that usually combine actions belonging to all three categories (Wardle and Derakhshan 2017).

1.2. Case Study: Peoples' Right of Self-Determination and the Case of Catalonia

In Spain, the so-called Catalan conflict[1] has been the target of diverse disinformation strategies both by supporters of independence and by unionists. Such strategies, developed on social media, have pursued the mobilisation of citizens through the manipulation of their emotions (Aparici et al. 2019; Carrasco Polaino et al. 2018; Hernández-Santaolalla and Sola-Morales 2019; Pérez-Curiel and García-Gordillo 2018). Alongside the proliferation of fake news, which tends to revolve around the actions of radicals, of the State's law enforcement agencies, or of the political protagonists, the creation of disinformation narratives which also seek to justify one political ideology or another, introducing confusion in the public sphere, can be found.

However, no sociological studies have hitherto specifically focused on analysing the use of legal issues to build those "alternative realities" mentioned above and the impact that it has on people, which led us to choose our case study. This is a highly relevant matter due to the characteristics inherent to the pro-independence movement, which opposes the so-called unionism in the interpretation and scope of legal issues, among which stands out the expression "right of self-determination" as a potential source of disinformation (Llorca-Asensi et al. 2021).

The current Catalan pro-independence movement gained strength from 2010 following the Constitutional Court's rejection of the new *Estatut de Catalunya* (Statute (of Autonomy) of Catalonia), but it was in 2015 that it "first impacted on the legal domain" (Arbós 2020) with the resolution that set in motion the *Procés*, the process of disconnection between Catalonia and Spain.[2] Since then, the arguments in favour of independence have frequently invoked the existence of a "right of self-determination", which justifies Catalonia's secession and the categorisation of the Spanish State as anti-democratic for not allowing the exercise of that right. This clash, so often staged in mass media, has given rise to an extensive amount of academic literature which usually reflects different views and interpretations (Atienza 2020; Ferreres 2019; Moreso 2020; Payero López 2016; Ruiz-Miguel 2019; Vilajosana 2020). Concepts such as legality, legitimacy, the right to secession or the right to decide, appear in the centre of that debate.

The complexity of the expression "right of self-determination", along with the mutual accusations of falseness or inaccuracy between those who use it to defend their respective positions, resorting to "hideouts in the argumentation" (Moreso 2021), put the spotlight on this expression as a generator of legal disinformation within the context of the Catalan conflict and, consequently, justify this research.

1.3. The Right of Self-Determination

The so-called right of self-determination appears in Article 1 of the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR), also called the Covenants of New York, which constitute, together with their corresponding protocols and the Universal Declaration of Human Rights, the UN International Bill of Human Rights.[3] The exact wording of the above-mentioned article reads as follows:

> "All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development."

Interpreting this article turns out to be complex for several reasons, starting with the actual definition of what a "people" is, on which no consensus exists; the scope and content of "free determination" is the second aspect; its application to some cases or others being the third one (Buchanan 2017). This complexity explains the existence of different doctrinal streams in the legal and political domains which approach the phenomenon from different standpoints and keep alive a debate on which various nationalist and pro-independence movements are supported at present (Moreso 2021).

Regarding scope and content in particular, attention must be paid to the existence of two dimensions when it comes to self-determination: the external and the internal one. The *Diccionario Panhispánico del Español Jurídico* (Pan-Hispanic Dictionary of Legal Spanish) describes them as follows: "*In its external dimension, (the right of self-determination) implies that the peoples submitted to colonial, racist or foreign domination have the right to decide their future political status, through the free expression of their will, to choose between independence, free association or integration into an independent State or any other political condition freely chosen. In its internal dimension, the principle materialises in the right to democratic participation in public affairs*" (RAE n.d.). In accordance with this definition, the possibility to decide on independence would be exclusively limited to the peoples[4] that find themselves in one of the situations of abuse described, whereas those peoples that are not in such a situation, and can take part in the public affairs that concern them democratically and on an equal footing, would already be exercising internal self-determination and would not have the right to secession, at least based on that legal text.

In this context, several authors have stressed the use of the expression "right to decide" (a right which does not exist in legal terms) to replace "right of self-determination" in Catalonia, perhaps with the aim of dodging the legal argument that secession as a right is not justified in the Bill of Human Rights (Ferreres 2019; Moreso 2020). Thus, appealing to a "right to decide" adds a new twist to the debate which, far from solving the confusion, complicates things even further. In the Catalan case, there is currently neither a "right to secession" nor a "right to decide" if they want secession. As seen above, a right exists to participate in the political decisions that affect the Catalan people and, of course, a right also exists to fight for a change in the legal framework which can eventually make it possible to achieve independence. The latter is the political dimension of the right of self-determination.

The reference to International Law in order to justify Catalonia's right to become an independent state is consequently rejected by experts in international law (see, in this respect, the manifesto "Declaration on the lack of grounding in International Law of the independence referendum to be held in Catalonia" (AEPDIRI 2017), which once again highlighted the confusion between "wanting to be independent" and "being legally entitled to be independent.". The works of the above-mentioned scholars, to quote but a few, follow along these lines.

It is important to emphasise at this point that this research work questions neither the legitimacy of the pro-independence political movement nor that of unionists'. Quite the opposite, the goal is to leave aside aspects of political ideology to focus on what is or is not, legally speaking. The intended aim consists in bringing to light what citizens perceive or know about the issue of self-determination and to what extent the confusion around such a complex concept affects them too. Therefore, the—intentional or unintentional—dissemination of distorted definitions of the "right of self-determination" which mix law and politics, or which confuse "wanting to have" with "having", is what we consider disinformation in this study, and not the contents showing an affinity to the fight for Catalonia's independence or an opposition to it.

On the other hand, given the impossibility to know which users know the legal reality and which ones do not, or which of them have the intention of deceiving and which ones do not, for the purposes of this work, we decided to always speak about disinformation, albeit by assuming that both deliberately false information and unintended misinformation are brought together behind that term, as shown in Figure 1.

1.4. Twitter as a Stage for Virtual Politics

The study performed focuses on the contents published and shared on Twitter between January 2019 and March 2021. It is on this social network that an important part of the political communication strategy unfolds nowadays and where the political actors build their respective narratives to mobilise citizens, encouraging them to demonstrate, to claim their rights, or to make monetary donations (Marcos García 2018). The Catalan case is no

exception in this regard (Carrasco Polaino et al. 2018; Arce García et al. 2020); quite the opposite, this behaviour is also adopted by the most important civil associations—ANC and Omnium—that play a starring role in the movement (Llorca-Asensi et al. 2021).

For any connected citizen, Twitter is the place for them to speak and debate on politics and current events (Arce García et al. 2020), which is usually referred to as the new virtual politics (Kruikemeier 2014; Parmelee and Bichard 2011; Tumasjan et al. 2010). The social network indicates that users are highly interested in politics and consider Twitter the main virtual space to talk about it (Mayo 2016).

However, not everything is positive when it comes to democratic quality on this network: a variety of studies have demonstrated Twitter's power to multiply disinformation (Pérez-Curiel and García-Gordillo 2018) and to make echo chambers through what Pariser (2011) defined as the "filter bubbles", giving rise to spaces where users only see content which match their pre-existing beliefs (DiFranzo and Gloria-Garcia 2017). Furthermore, and unlike what it may seem, it is an environment in which hardly any dialogue exists (Alonso-Muñoz et al. 2016; Pérez-Curiel and García-Gordillo 2018), a relevant aspect which we have managed to solve in this research.

In the field of emotions, Twitter's format makes it easier to disseminate mottos over reflective arguments by limiting the length of messages, which likewise rewards the spreading of emotional aspects as opposed to rational ones, an occurrence that happens even in situations of robot-created "artificial" interaction (Woolley and Howard 2016). Among the existing techniques for the analysis of emotions, a decision was made to work on GALC, given its suitability to examine free, non-induced texts (Scherer 2005), as tweets are.

Despite all the above, the *real* impact that disinformation has on Twitter when it comes to the emotions of users and their eventual political polarisation is hard to quantify, and that affects our case study too. If there is hardly any "conversation" on Twitter, if the "right of self-determination" is ambiguous, and if the objective consists in characterising "widespread disinformation" in the case study, it becomes essential to address our work, combining methods from social sciences and from data science so that we can draw meaningful conclusions.

1.5. Text Mining to Analyse Twitter

Since Twitter limits the extension of the messages published, users need to condense their ideas by the selecting relevant words that reflect them, which makes it possible to link the concept of relevance to that of frequent words. One can consequently state that the content of tweets admits a semantic representation which permits one to study the central elements of a discourse as well as peripheral ones easily, assigning them degrees of relevance (Denia 2020).

Over the last two decades, the development of various natural language processing (NLP) techniques for text analysis by using methods from Information Systems and Artificial Intelligence (AI) have made it possible to obtain very valuable information from large data volumes. Important progress has been made thanks to these techniques by allowing the extraction of keywords and expressions that can summarise the content of a document or a group of documents. Nevertheless, although plenty of powerful algorithms exist, the corpus of documents that these techniques require for the training of neural network models is usually insufficient and, moreover, many of the libraries widely used for programming do not support languages such as Catalan.

By means of Artificial Intelligence, combined with structured, unstructured, and semi-structured data, Text Mining permits one to analyse natural language expressions (Bovi et al. 2015). It is thus possible, not only to handle syntactic and semantic structures, but also to resolve ambiguities such as those derived from the polysemy and synonymy that are present in languages (Weissenborn et al. 2015). Information Retrieval Systems have distinguished the techniques applied to short documents from those used with long ones (Baeza and Ribeiro 1999).

Ensuring the permanent availability of relevant information poses a huge challenge (Manning et al. 2008). Techniques such as Latent Semantic Indexing (Deerwester et al. 1990), which is used in this research, play a fundamental role in this task. It becomes essential in the NLP, whether through the use of supervised learning techniques or not, to have data that are necessary to train and use in the algorithms, and Big Data plays a crucial role in that respect (Gandomi and Haider 2015). Although the data structures on Twitter are relatively simple, their volume makes it very difficult for a specialist in the human domain to make a specific decision, hence our choice to rely on the Twitter API to generate plain text data, in addition to which, and also based on different metadata, we have tried to ascertain the relevance of the information under examination by constructing text with multiple expressions. This makes it easier to apply several of the NLP techniques that handle context and interpret results as topics.

1.6. Hypothesis and Research Questions

As mentioned above, Llorca-Asensi et al. (2021) described the conversation about the Catalan conflict on Twitter as prone to disinformation. Among other things, the analysis showed that the activity was focused on the mobilization of citizens and the launching of political slogans with little or no real conversation outside their own echo chambers, alongside a highly emotional discourse loaded with frustration and exaltation. Furthermore, the discourse was proved to be built on false or inaccurate information, with the ambiguous use of "right to self-determination" in the spotlight. Literature additionally shows that the said expression is misleadingly used for political goals (Moreso 2021) and that International Law can provide no grounding whatsoever to support Catalonia's independence (AEPDIRI 2017).

Faced with this scenario, it becomes necessary to consider to what extent this—confusion, be it deliberate or unintentional, has really permeated the population and whether it is helping to increase social polarisation by bringing out negative emotions. Obviously, fighting for a political ideal such as managing to create an independent state does not carry the same implications (and neither does it arouse the same negative feelings among the population) as fighting against an oppressive state which unfairly violates fundamental rights.

In this context, the following starting hypothesis is posed:

Hypothesis 1 (H1). *Within the context of the Catalan pro-independence movement, the expression "right of self-determination" is a source of disinformation that generates negative emotions.*

The research questions that will have to be answered in order to validate or refute this hypothesis are formulated as follows:

Q1 What sort of disinformation exists around the concept of self-determination according to experts?

Q2 How can this disinformation be identified on Twitter and described within the context of the Catalan independence conflict?

Q3 What emotions become visible when the right of self-determination is mentioned in the case study?

2. Materials and Methods

The work is structured into three blocks, in such a way that each one answers a research question, as shown in Figure 2.
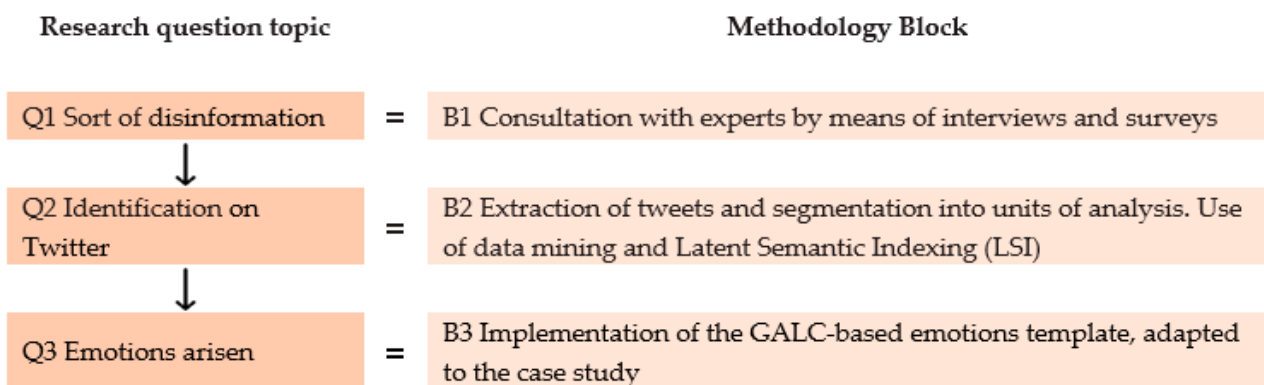
Figure 2. Research question topics and methodology utilised to answer them.

Block 1. Consultation with experts

Following Figure 2, and in order to answer Q1, experts (n = 94) joined the research in two stages: first, a heterogeneous group, whose attention focused on the meaning of "right of self-determination", distinguishing its legal and political dimension; second, a larger and more homogeneous group, in which a validation was made of the previous group's criterion, additionally delimiting the problem in its legal dimension. Figure 3 shows their universities of origin.

Figure 3. Experts' universities of origin. Source: elaborated by the authors.

1. First group (n = 19): Semi-structured interviews by video call were carried out with the support of a form. The aim was to make a first approach to the topic and to obtain the main elements needed for the disambiguation of this term. The interviewees assessed 10 items as true, false, or inaccurate, motivating their opinion in each case. The selection of experts relied on the "snowball" technique, trying to ensure that they had different academic profiles and ideological positions so as to guarantee the quality of results.[5]

This group provided the keys with which to single out the legal dimension of politics in relation to the "right of self-determination", and distinguished it from the "right to secession" or "right to independence" with which it is usually confused. This served to modify the form as well as to choose the profile of the second group: experts in International Law.

2. Second group (n = 75): A self-administered 6-item form was used with 75 experts from 31 Spanish universities and 3 foreign universities for the purpose of confirming the assessment of the previous experts exclusively from the perspective of International Law.

The reports made by both groups of experts coincided in identifying the following as the origin of confusion:

The *right* of self-determination[6] is confused with the *political principle* of self-determination. The former must be validated in some legal framework, while the latter is the legitimate capacity to pursue any independence claim "politically" and in a peaceful manner.[7]

The right *of self-determination* is confused with the right *to secession*. The former is covered by International Law, and the latter depends on each State's constitutional and legal framework.[8] The right of self-determination only includes a right to secession in very specific cases (Figure 4).
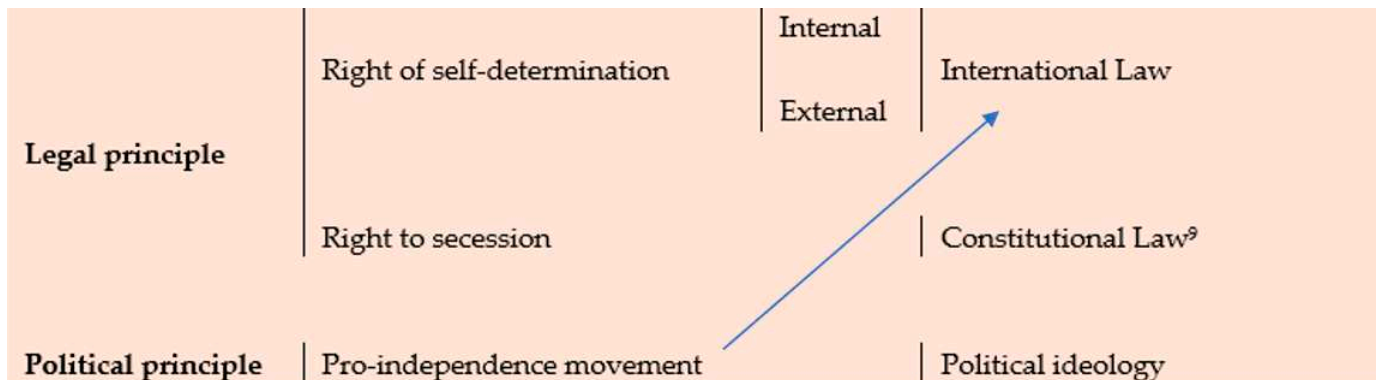
Figure 4. Disambiguation of the "right of self-determination".[9] Source: elaborated by the authors.

It follows from the above that it is possible to label as disinformation any content which suggests the following:

Finally, a selection was made of the words which make it possible to link—within this case study—the presence of disinformation using the criterion of the experts described in Table 1. These terms were chosen at the researchers' initiative based on their meaning and the result of the consultation with experts and a previous literature review. It was not an automated assignment, since the computer-assisted research methods assume that the terms have the same meaning in any context (Matthes and Kohring 2008), whereas the use of human coders leads to a better interpretation of the discussion environment (Denia 2020).

Table 1. Signs of disinformation in the text.

1. That (right of) self-determination and (right to) secession or independence are synonymous
2. That International Law recognises the right to secession of *any* people
3. That Catalonia has a right to secession according to International Law
4. That Catalonia's right to secession stems from the UN covenants
5. That Spain[10] infringes International Law by not permitting Catalonia's secession
6. That Spain is violating its own Constitution by not allowing Catalonia's secession
7. That the Spanish State does not recognise peoples' right of self-determination
8. That Catalonia does not have/enjoy a right of self-determination

Source: elaborated by the authors.

Although the appearance of the terms in Table 2 in the texts under analysis does not automatically provide evidence of disinformation, it comprised a sign from which the researchers examined the content in order to code such texts manually.

Table 2. Terms linked to a disinformation content in the case study.

covenants treaties	In plural, they refer to ICCPR and ICESCR
UN	The United Nations Organization within which such treaties are produced
peoples	In plural form, it alludes to the literal wording of Article 1 of the covenants
constitution	It refers to the Spanish Constitution and denotes an allusion to the legal framework which permits—or does not permit—to fit certain claims
legal right	They suggest that this is a debate on legality within the framework of the right of self-determination
recognition	It is an expression used to demand that the existence of a right (to decide or to secession) be admitted
(to) exercise	This is the verb utilised to express that Catalonia has a recognised right and to denounce the Spanish State for preventing its exercise
human fundamental	They link the non-acceptance of the right of self-determination with a violation of Human Rights and fundamental rights.

Block 2. Identification of disinformation elements in the corpus of tweets

The next step consisted of analysing a corpus of tweets (n = 102,364), collected using the Twitter API, which included the term "self-determination" written in Catalan[11] and published between 1 January 2019 and 1 March 2021. The objective was to avoid the massive dissemination of political slogans so that attention could be paid to users' conversations. To that end, Latent Semantic Indexing was applied for the extraction of topics[12] to the whole corpus (n = 102,364), then such topics were identified on the data organised in "micro-forums" (n = 31,624), and finally a closer analysis was conducted to verify the presence of disinformation on the 30 main "micro-forums" (n = 1068).

(1) Analysis of micro-forums

Micro-forums are sets of tweets which derive from a single initial tweet; the latter opens the topic, and the former comment on it or reply to it, which means that the conversation logic resembles that of Internet forums. As the whole corpus was made up of tweets that included the term "self-determination", so did micro-forums.[13]

Such an organisation of data[14] helps reduce a large-sized corpus to a significant number of qualitative references through which meaningful conclusions can be drawn. The characteristics of micro-forums were additionally suitable to apply the subsequent semantic analysis, since they permitted to identify the context—which is essential in this type of analysis—from the following elements: (i) All tweets are reactions to a single initial message (second level messages are not included), hence the assumption that they speak about the same topic; (ii) They are collected within the same period of time; (iii) They are published in the same language (Catalan), which serves to reinforce their thematic unity (they refer to the case study); (iv) The language, which also suggests a similar political ideology within the context of this crisis (Rodón et al. 2018); (v) That they are arranged chronologically, which leads us to assume the existence of a cause–effect relationship (in_reply_to) and, at least in part, a previous reading of the replies to a tweet, prior to formulating one's own, exactly as it happens in internet forums.

As a result of the process, it was attested that 30% of the tweets (31,624) in the corpus were formed by micro-forums, and the remaining 70% (70,724) were separate tweets, which is why the latter were excluded from the analysis. Micro-forum sizes ranged between 2 and 97 tweets, and those including over 15 tweets (n = 30) were chosen to shape the sample to examine.

(2) Latent Semantic Indexing[15]

This technique allows us to determine the relevance of a term inside a document (a micro-forum, in our case) and with regard to other terms, based on their occurrence and the distance between them. LSI assumes that words which are close to one another in a portion of text have similar meanings or are related. This stage focused on identifying the

most relevant terms in the conversation about Catalonia's right of self-determination, even if their frequency of appearance in the document (micro-forum) was not high or the word had several meanings or did not always appear with the same name, since the LSI system solves the problem of polysemy and synonymy and thus permits the emergence of the ideas underlying a text, beyond the mere frequency of appearance of each term in a literal way. All the terms identified in each micro-forum are semantically related to one another and denote the conversation content.

The need to reduce the analysis space was an important reason which led us to combine the different techniques in such a specific scenario as Twitter, where the fact of not being able to write a long text, but only text sequences not exceeding 280 characters, largely influences the choice of a specific strategy.

Block 3. Analysis of emotions

The last step consisted of identifying the emotions expressed in micro-forums, according to Figure 2. The work was based on the GALC system,[16] suited to the analysis of free, non-induced text (Scherer 2005), translated into Catalan, and modified to adapt it to the case study, removing categories which provided no value or achieved less than 10 results (such as *gelosia* (jealousy), *enveja* (envy), or *luxúria* (lust)) and adding terms which were relevant for the case study (e.g., *botifler* (word used to refer to the supporters of Philip V during the Spanish Succession War, with a derogatory expression toward Spanish people), *ñordo* (literally meaning "excrements" and metaphorically used to refer to someone who feels Spanish), or *feixista*[17] (fascist) in the category "Contempt"). Despite not referring to an emotion, the category "Lies/Lying/Deceit" was added to ascertain whether users alluded to disinformation in the micro-forums under examination. Finally, denial (up to −3 terms) was included. The process through which GALC was adapted went through a discussion with colleagues who, albeit not involved in the research, were familiar both with qualitative text analysis and with the case study.

The result is a template with 20 categories (see Table 3), almost half of them positive (with 113 terms) and the other half, negative (with 137), applied to the 30 largest micro-forums, which included a total of 1068 tweets. The appearance of terms belonging to each emotion category in the results must be understood as evidence of the presence of an emotional state which is closely associated with that category (Scherer 2005).

Table 3. Template of emotion categories adapted to the case study.[18]

Admiration/Awe/Surprise	ador* adoració*	sorpres* esbalaï*	atordit* bocabada*	enlluernad* sobresalt*	embadali* desconcertat*	captiva* atònit*	fascina* (adorn*)	meravell*	enart*	venera*
Amusement/Pleasure/Enjoyment	divert* (amenaç*)	humor* (amenac*)	riall* amen*	jugan*	jogass*	somri*	diversió	gaudi*	encant*	resplend*
Being touched (Emotion)/Sympathy	emocio*	compade*	compass*	empatía	empàtic*					
Satisfaction/Happiness/Joy	content* exultant	satisf* eufor*	alegr* exalt*	benaura* estimula*	delicios* exult*	encanta* gaubança	agrad* joio*	plaent* alegr*	feliç* encantad*	content* gaub*
Feeling(s)/Gratitude	afecte	cariny*	amist*	tendresa*	gràcies	agraï*				
Hope	fidel*	esperança*	optimis*							
Interest/Enthusiasm	despert* fervor*	apassiona* il.lus*	atent*	curi*	ansio*	fascina*	abstret*	entusiasta*	fervent*	interes*
Longing	somni anhel*	deler* somiar	fantasi*	fris*	rememorar	nostàlgia	enyor*	nostalg*	penedi*	desitj*
Pride	orgull*	supèrb*								
Relaxation/Serenity/Relief	calma* alleuj*	desenfadat* seren*	indiferent* tranquil*	desapassiona*	equanim*	afable*	Despreocupat	placid*	equilibr*	relax*
Anger	enfad* ressent*	ràbio* temperament	enrab* disgust*	Furiós ences*	fúria	enfurism*	fregi*	rabi*	còler*	embog*
Anxiety	ansie*	aprehensi*	reticent*	Cangueli	nervi*	turbac*	recel*	previngut	preocupat	problem*
Boredom/Disgust	fastig* fàstic*	indifer* indispo*	tedi* repugn*	Desgast repuls*	aversi* reprova*	detest* abomina*	disgust*	desagrad*	aversió	desassaborir
Desperation/Despair/Disappointment	perdu* resigna*	decaigu* amarg*	desconsola* boicotej*	desepera*	abat*	decebu*	desconten*	desencis*	desil·lusiona*	frustra*
Dissatisfaction/Sadness	infeli* plor*	disgust* llàstima	abat*	Dolor	taciturn*	desespera*	melanco*	aflig*	trist*	llagrim*
Fear	esglai*	alarma*	Por	esfereid*	horror*	aterr*	terror*	**amenac***	**amenaç***	(por ellos)
Guilt/Shame	avergony*	desgracia*	humilia*	ruboritza*	culpa*	Contrició	culpabl*	remordiment*	penedi*	
Contempt/Hatred	denigr* amarga*	desaprov* odi*	burlet* rencor*	desprecia* l'odi	arrogant facha	botifler* fasci*	ñordo*	nyordo*	*Ñ*	charneg*
Tension/Stress/Irritation	malestar enfada*	estres* crispa*	cansa*	tensio*	rigid*	molest*	exaspera*	malhumora*	indigna*	irrita*
Lies (Lying) (Deceit)	mentider*	fals*	mentida*	Mendacitat	fal·làcia	falsedat*	Bola	conte	engany	embolic*
	Ficción	Calúmnia	Fake							

3. Results

The relevant terms that shaped each topic in a micro-forum provided researchers with evidence of the existence of disinformation. Table 4, which lists them all, shows that 26 out of 30 micro-forums in the sample had at least one of the terms identified in Table 2. Only those numbered as 23, 24, 26, and 27 failed to include evidence-supplying terms in the corresponding topics,[19] and political content had much more weight than legal aspects therein.

Reading the messages allowed us to verify the predominant utilisation of "right of self-determination" either as an equivalent to "right to decide" or directly as "right to secession." Disinformation is not present to the same extent in every micro-forum: the largest ones and those including at least two evidence-supplying terms show a higher degree of disinformation than the rest. However, all micro-forums, regardless of the topic with which the conversation began in them, reveal the confusion of users, who refer to the UN covenants to support their arguments and describe the Spanish State as antidemocratic (basing such categorisation on Spain's non-compliance with the international legislation).[20]

> *"We have the right of self-determination because we are a nation even though we do not have a State and Spain has the obligation to authorise one self-determination referendum if we request it, since that is our right recognised in the International Covenant on Civil and Political Rights (UN 1966) ratified by Spain"*

An illustrative example of the significant confusion generated by this term is provided by the reaction to the statement made by the unionist Manuel Valls[21]: *"Self-determination is not constitutional and an illegal referendum is a crime"*. According to Valls, self-determination is not constitutional and, despite not specifying that he was referring to the case of Catalonia, it can be inferred from the context that he was.[22] Firstly, since self-determination as a right falls within the domain of International Law, it seems confusing to say that it is not constitutional (insofar as that right does not appear among the competences of the Spanish constitution, according to Figure 4). Secondly, considering that Spain has ratified international treaties, among which are the New York covenants, self-determination enters the Spanish constitutional framework when that ratification is signed. Nonetheless, self-determination is constitutional, but only in the conditions established by International Law, not in others. That is to say, Spain defends that the different peoples who live inside a state should have an egalitarian participation in the political issues that affect them (internal self-determination) and, likewise, that those peoples that are submitted to colonial, racist, or foreign domination should be able to achieve secession (external self-determination). Insofar as Catalonia falls within neither of these cases, (external) self-determination would not be a right for it from an international point of view, and internal self-determination would not have been violated, since Catalan citizens are democratically involved in political life to the same extent as the other citizens who live in Spain.

Valls' message gave rise to a forum of some three thousand tweets, from which were extracted those containing the term "self-determination" for analysis. It can be verified in the sample that the replies to the message published by Valls denied his statement, but not because users clarified the real scope of this term but rather because, being also trapped in disinformation, they adduced arguments with which an attempt was made to prove that Catalonia has the right to independence because it is so stated by the UN and because Spain has signed the treaties whereby that was established. In other words, self-determination is put on a level with secession, independence is considered constitutional, and the United Nations Organization is mentioned as the source of that right. Some examples are:

> *"Self-determination is a right envisaged in signed, ratified and published international treaties as foreseen in the Spanish Constitution which was incidentally drafted and approved after these treaties."*

> *"Precisely self-determination is constitutional. The law and the constitution are used to protect one's own interests; it is distorted, manipulated and utilised according to what is convenient for your "mother-country-saving" discourse."*

"The Spanish State has signed the international treaties and therefore they have come to form part of the Spanish legal framework and self-determination is a right! Scatterbrain!"

The outcome was that the pro-independence movement accused Manuel Valls of disinforming (or misinforming), and they would be right, the only problem being that the arguments used to prove it show the same level of confusion:

"Peoples' self-determination is constitutional. Hope you have some time to read it (the Spanish Constitution). *As always, the españolistos* (a derogatory blend of españolito [little Spaniard] and listos [clever]) *deceiving the people."*

"[Are you saying] that no Constitution recognises the right of self-determination?? . . . what do you think (articles) *154–160 of the SPANISH Constitution are? Does the ReiÑo²³ (sic) respect the international treaties that it has assimilated?? The right of self-determination is a fundamental principle in public international law."*

Similar examples such as the following one can be found in other micro-forums of the sample:

"Isolated cases? The right of self-determination is a recognised right and it internationally protects ALL the peoples (nations) and Catalonia is actually a much older nation than Spain (I did not say Castile, I said Spain, because Castile is indeed a nation with years of history)."

Although there are only very few of them, the corpus also contains some messages which show a correct knowledge of the scope and meaning of the rights of self-determination and secession:

"It is no OPINION, these are FACTS. If you cannot distinguish it, you have a problem, and I am not trying to avoid the issue: I mean that the Right of Self-Determination CANNOT be applied as a Right to Secession to a region of a democratic country which has never been a colony."

"Neither Veneto nor Bavaria or Texas or Brittany or Ulster or California . . . nor many others. Perhaps the "Right of Self-Determination" is NOT what you have been told about a supposed "Right to Secession"."

Finally, several tweets clearly reflect the ignorance or contempt for evidence that characterises disinformation narratives, as illustrated in the example below, which refutes as an argument that the right to secession is limited to specific cases in the international context:

"Universal Declaration of Human Rights 1948. Right of self-determination of peoples: Part I Article I of the economic, social and cultural rights. Spare me the mantra of "for the colonies"."

The polarisation between the noble "we" and the despicable "they"—which is present in populist disinformation strategies (Hameleers 2020)—can be easily recognised in some messages too:

"Self-determination is a right envisaged by the UN. Whether you like it or not. The 1978 constitution is a Francoist one. Catalonia lives in the 21st century, while Spain remains anchored in the terrible 20th century."

Table 4. Topics which are semantically relevant in each micro-forum.

Mf	N	Terms
1	95	**constitutional**, **right**, **peoples**, treaties, international (pl), crime, **constitution**, **legal**, referendum, democracy, Barcelona, Spain, Spanish (m), referendum/plebiscite, Spanish (f), rights
2	55	dialogue, **right**, table (Cat), independence, (to) speak, years, referendum, PSOE (Spanish (Worker's) Socialist Party), conflict, **(it) exercises**, political/politician, no, proclamation, negotiation
3	45	motion, **right**, (to) vote, solutions, people, axis, (I) trust, PSOE, Catalonia, central, (to) negotiate, policies, therefore, fully, thanks, prisoners, Madrid
4	46	**right**, referendum, Catalonia, dialogue, social (pl), rights, shame, prisoners, repression, agreement, politicians, progress
5	51	*comuns* (members of the party En Comú Podem), (they) defend, (they) want, moment, Catalonia, *Entesa* (agreement of centre-left and left-wing political parties in Catalonia), only, part, **right**, (to) search, (we) defend, (you) say, people,
6	47	**right**, referendum, dialogue, amnesty, prisoners, freedom, negotiation, nothing, **recognition**, table (Sp), table (Cat), no, independence, politicians
7	44	**right**, budget, (to) speak, (to) accept, population, error, politicians, govern (Cat), trial, partisan, social (pl), historic(al), prison, right, arms, interests, (to) approve
8	88	citizens, issue, important, **right**, (that should) resolve, (to) **decide**, democracy, (to) resolve, people, *ciutadans* (political party)/citizens, no, referendum,
9	40	**right**, unilateralism, referendum, rights, country, (to) leave, **human (pl)**, Spain, no, **peoples**, (to) vote, unilateral, against, Catalonia
10	40	amnesty, **right**, independence, referendum, freedom, this, prisoners, shame, dialogue, agreement, referendum, exiles
11	39	table (Cat), (to) defend, negotiation, nothing, independence, **right**, less, defence, forgotten,
12	51	change, motion, (to) withdraw, all, **right**, *botiflers* (derogatory expression towards Spanish people), to agree on/negotiate, senators, parliament, (to) relinquish
13	25	**right**, **peoples**, prisoners, fight, politicians, Catalonia, people, against, freedom, justice, Catalan, safe/sure, independence
14	24	**right**, independence, referendum, freedom, prisoners, politicians, exiles, dialogue, **peoples**, president, democracy, prisoners
15	25	**right**, Catalan(s), welfare, interests, all, progress, president, Catalonia, politicians, pathetic, government (Cat), people, nothing
16	29	motion, change, **right**, (to) withdraw, parliament, (to) agree on/negotiate, no, afterwards, unity, senators, part, (to) oblige
17	20	dialogue, amnesty, **right**, change, (to) speak, investiture, referendum/plebiscite, people, prisoners, treason, situation, seems, agreement
18	38	(to) negotiate, negotiates, Brussel(s), **right**, independence, enough, president, Europe, Catalan(s), (to) deceive, **(it) exercises**, dialogue, table (Cat), declaration
19	22	dialogue, **right**, prisoners, (to) speak, freedom, amnesty, referendum
20	20	amnesty, all, possible, **exercise**, **right**, press, position, no, (to) speak, out(side), (to) leave/divide, Catalan (f), enough
21	38	**right**, favourable (pl), (to) save, Catalonia, majority, very, against, voters
22	22	**exercise**, Republicanism, that, State, fronts, barn, broad (pl), Catalonia, (to) convert, majorities
23	25	freedom, you (pl), Catalan (f), Republic
24	19	referendum, table (Cat), dialogue, pro-independence demonstrations, amnesty, negotiation, repression, **right**
25	20	supporters of sovereignty, government (Cat), *comuns* (members of the party En Comú Podem), amnesty, broad (m), centre, front, seriousness, broad (f), (they) vote, right-wing parties
26	20	consensuses, against, Catalonia, consensus, independence, (to) want, democratic (pl), broad (pl), (to) articulate, congress
27	20	independence, freedom, republic, acquittal, without, path, less, (to) vote
28	20	table, **right**, Catalonia, government (Sp), time(s), dialogue, side, repression, debate, (to) defend, sectarian (m)
29	21	(to) negotiate, State, motion, **right**, Catalonia, negotiation, parliament, independence, power, Spanish (m)
30	15	**right**, (to) speak, table (Cat), table (Sp), Statute, achieved, (to) negotiate, prisoners, negotiation, change, determined, (to) **exercise**, referendum, Catalan(s)

Furthermore, when the sample of micro-forums is treated as a single document, without breaking down the different units that comprise it, the terms with greater semantic relevance, allowing researchers to identify the overarching topics, are the ones listed in Figure 5.
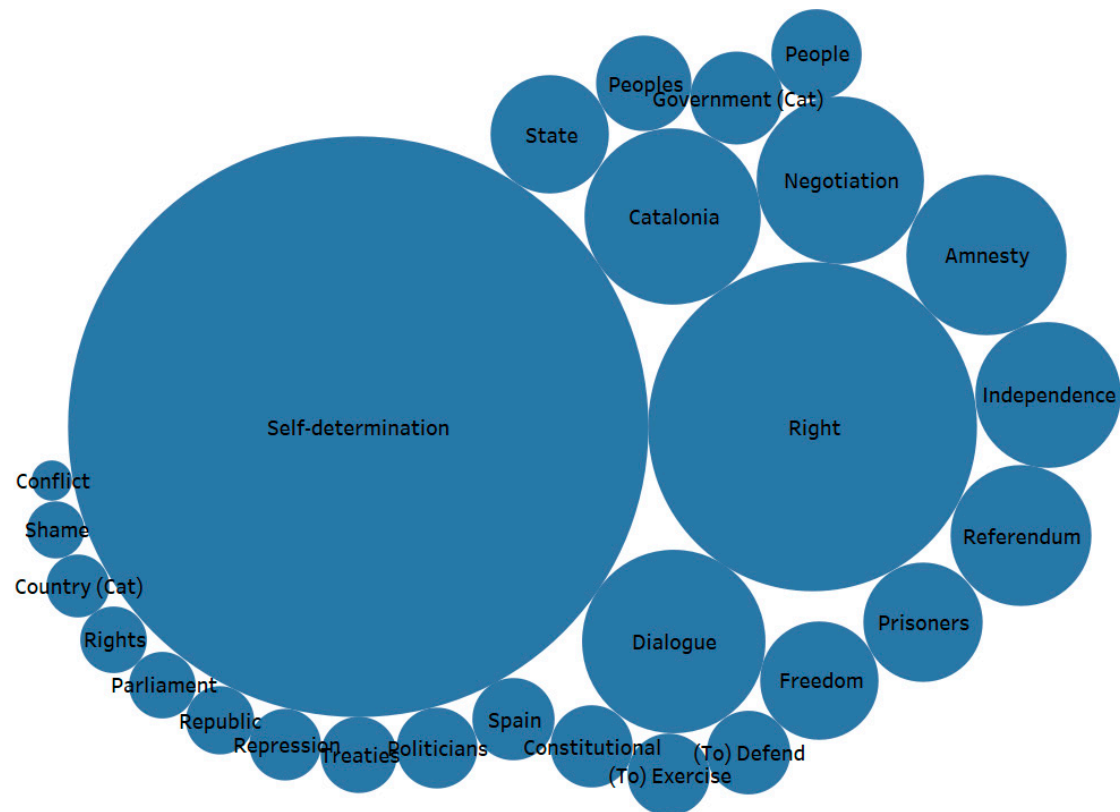
Figure 5. Cloud of semantically relevant terms. Source: elaborated by the authors.

It becomes evident that the debate revolved around four main interconnected topics: Firstly, around the thesis that a right to independence (or to decide) exists endorsed by the UN covenants *(Right, Catalonia, Independence, Peoples, (To) Exercise, Treaties)*. Secondly, that this and other rights cannot be exercised in Spain for political reasons *(Spain, Constitutional, Politicians, Rights, Repression)*. Thirdly, the imprisonment of the persons accused by the 1-O,[24] for whom freedom is requested *(Amnesty, prisoners, freedom)*. In the fourth place, these ideas coexisted with a permanent complaint about the lack of dialogue between the parties to solve the conflict through a referendum/plebiscite among the population *(dialogue, negotiation, referendum)*. Finally, this list of terms already allows us to clearly appreciate the negativity and frustration that prevailed in the content of messages *(repression, shame, conflict)*.

In this sense, Table 5 shows the result of applying the GALC-based emotions template adapted to the case study. The emotions collected denote a clearly negative context, since, even in those cases where the system correctly identified a positive emotion in the text, human coding revealed that the term was present, though in an ironic sense, normally expressed as distrust, despair, or anger. This can be easily seen in the table below, where the colour of the data in the upper quadrant (the first ten categories), initially green because they were positive emotions, becomes almost entirely yellow after checking the ironic sense. An example thereof is the detection of emotions such as "fun", "liking", "tranquillity" or "gratitude", which are not like that in the corpus:

*"How **funny** it will be if amnesty is achieved, the prisoners go out and they themselves remind you that, if they have been in prison, it was for defending the right of self-determination"*[25]

*"We all **would like** a dialogue table. But the Spanish State will never talk about self-determination. Never"*[26]

*"**don't worry**, Spain will soon come and forbid it"*[27]

*"That the General State (National) Budget should include an entry to carry out a legally binding self-determination referendum in Catalonia. Can you tell your boss? **Thanks**"*

The upper quadrant of the table shows the number of occurrences for each category, whereas the lower one reflects the weight of negativity (65.5%), irony (31%), and positivity (3.5%) within the sample as a whole. Adding irony to negative expressions (since we are dealing with negative attitudes in both cases) leads us to reach 96.5% of the total. Figure 6 breaks down emotions by typology.

Figure 6. Emotions detected in the sample.

Table 5. Emotions detected in the sample of micro-forums.

Emotions	MICRO-FORUMS																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1*	20	21	22	23	24	25	26	27	28	2*	30
Admiration (Awe)/Amazement															1				1											
Amusement (Fun)/Pleasure/Enjoyment			1																											
Being touched (Emotion)/Sympathy																														
Satisfaction/Happiness/Joy	1		1						1		1		−1		1	1											1	1	−1	−1
Feeling(s)/Gratitude			4		1				1		1						1		1						1				2	
Hope			1					2	1								1		1											
Interest/Enthusiasm	1	1		−1			2	2			−1			4	1		2 −1									−1				
Longing						1																								
Pride	1		1		1																									
Relaxation/Serenity/Relief							1																							
Anger															−1		2													
Anxiety	1	1 −1			1	−1		2	1				2												−1	1				
Boredom/Disgust			−1					2			2						2 −1													
Desperation (Despair)/Disappointment		1		1		1											1		1										1	
Dissatisfaction/Sadness							1		1				1				1		2									1		
Fear							1 −1	1 −1																1					1	
Guilt/Shame		1			1	1 −1																								
Contempt/Hatred	10		2	1	1		2	3	1	3	8 −1		2 −1		1		1		1	2		1	1	1					2	1
Tension/Stress/Irritation															−1		1												−1	−1
Lie/Deceit	6	5					1		1	3	1										1	1								2

65.5% negative
31% irony
3.5% positive
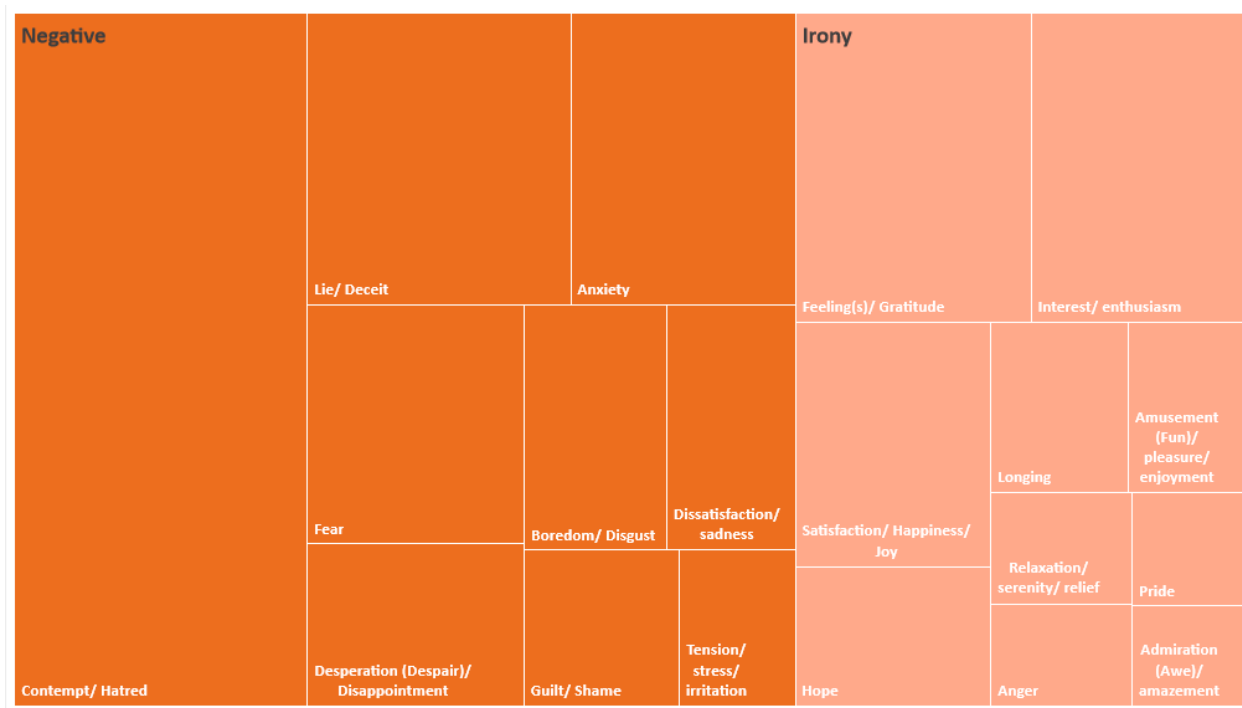
Within the emotion categories expressed on an irony basis stand out gratitude, enthusiasm, joy, and hope. We can highlight contempt and hatred among the negative ones, followed by the references to lies/lying/deceit, anxiety, fear, desperation/despair, and disappointment.

> *"But how do we want to negotiate self-determination with a state like **FachaÑa** (blend meaning "Fascist Spain")?? Have we lost our senses? We already voted and earned the right to be the Catalan Republic at the referendum of 1 October 2017 and independence was declared, bollocks! Enforce it or you can all bugger off!"*

> *"Self-determination is a right. And you are nobody to prevent us from exercising a right. It is also constitutional and thus legal. You **fascists** shall not pass!"*

> *"It is **disgusting**. And it is even more so that, with international rights such as that of self-determination, a country can OBLIGE us to form part (of it) forever and forcibly, denying us the right to BE free."*

> *"Every country has **enjoyed** self-determination sooner or later. Why CAN'T we?"*

Polarisation is obvious, and the presence of several messages which show the "we/us" (the people–victim) against the "they/them" (the oppressive State) so characteristic of populism denotes its impact on citizens:

> *"When you say compatriots, do you mean those who deny us the language, those who hate us 'cos we are Catalans, those who oblige us to belong to their state, refusing to accept a referendum and our self-determination? Those who sing "Go get them!"? Who are the "compatriots"?'."*

> *"Cos this is the real basic problem that has been dragging on for 3 years: Even though the CAT nation has the right of self-determination recognised by international law, the oppressive regime will never admit political actors that can threaten its totalitarian integrity"*

By way of recapitulation of the contents exposed in this section, it can be stated that the conversation and disinformation on Twitter about the "right of self-determination" revolve around the semantically relevant terms specified in Figure 5, and also that users resort to them within a context of full negativity, as shown by the emotions listed in Table 5 and, more especifically, in Figure 6.

4. Conclusions

The work carried out enabled us to confirm the starting hypothesis through the answers to the research questions posed:

Q1. What sort of disinformation exists around the concept of self-determination, according to experts?

A1: The external and internal dimensions of the right of self-determination are ignored; this right is confused with that of secession and, furthermore, the political dimension (wanting independence) is confused with the legal one (having the right to independence).

Q2. How can this disinformation be identified on Twitter and described within the context of the Catalan independence conflict?

A2: By combining social science methods, artificial intelligence, and data mining, we verified that disinformation is present in every segment of the sample, made up of 30 micro-forums extracted from a corpus of 102,634 tweets. They all reflect disinformation to a greater or lesser extent. Conversations show how deeply concepts are merged, with the result of individuals claiming their right to secession based on the UN articles, a right that they have as "the people". Consequently, the Spanish State is accused of being fascist or undemocratic for violating what they consider to be a basic and internationally recognized human right—the right to secession.

Q3. What emotions become visible when the right of self-determination is mentioned in the case study?

A3: Very clearly negative ones, including contempt, hatred, anger, and fear, and an extensive use of irony. Negativity is directed to the Spanish State, the ideological opponents—the unionists—, and also towards their own politicians for their "weakness" in fighting against the former two. Only 3.5% of the emotions detected were positive.

According to our findings, and derived from the answers to the above questions, the research hypothesis (**Within the context of the Catalan pro-independence movement, the expression "right of self-determination" is a source of disinformation that generates negative emotions**) is confirmed: the use of said expression with a wrong or innacurate meaning, or when stated out of context, not only leads to a widespread confusion on Twitter that can be described as disinformation, but brings out negative emotions in the already highly polarised context of the Catalan conflict.

On the other hand, from a methodological point of view, arranging the data in micro-forums made it possible to locate conversations within a corpus mostly formed by "separate" tweets, and to zoom in on them to perform a detailed qualitative analysis of their content. The subsequent combination of some text mining techniques made feasible an analysis of a simplified sample without losing generality. Within the context of digital politics such as the one under study, where hardly any dialogue exists and most tweets are unidirectional, it becomes difficult to extract conversations about relevant ideas, which is why the method used has proved to be highly useful in this case.

5. Discussion and Proposals for New Works

The consequence of selecting only tweets in Catalan, seeking to avoid the appearance of topics outside the case study, was that the results were more closely linked to the pro-independence position than to that of the unionists, insofar as this is the language in which the pro-independence movement tweets, as attested by Rodón et al. (2018). This does not necessarily mean that the results within the unionist side have to be different, but it does mean that they are not represented to the same extent as those of the pro-independence movement in the sample used for this study.

The analysis was confined to Twitter users. It would be interesting to check the degree to which the Catalan population, beyond the former, shows confusion or disinformation concerning this issue. A comparison should also be drawn with the knowledge of the population living outside Catalonia.

We have not broken down users' profile into entities and private users, which means that it is impossible to assign an intent (proven or supposed) to the authors of the tweets, and, accordingly, to distinguish people who could be *disinforming*, i.e., they would be aware of the confusion, and those who could be sharing *misinformation*, i.e., being unaware of the confusion caused.

Likewise, one could discuss whether having "responsibility" and not only an "intent" might give rise to a new category of disinformation agent. Thus, the consideration as *disinformers* would correspond to those individuals who have the duty, the possibility, and the responsibility of providing truthful information to citizens (political parties, mass media, civil associations, and public institutions). Instead, *misinformers* would be mainly those citizens who do not have the responsibility or even the resources to distinguish between the different meanings of the term in question. In this regard, it must be stressed that the involvement of "official" actors in disinformation campaigns leads to increase their sophistication, financing, and potential impact (Wardle and Derakhshan 2017), which makes the analysis proposed even more important.

On the other hand, although the contents which generate positive emotions are associated with a greater likelihood of becoming viral, emotional intensity also arises as a highly influential factor (Berger and Milkman 2012; Wihbey 2014), hence the convenience for future research studies to verify the messages analysed here in relation to their scope, the speed of dissemination or the interactions obtained. In the case under examination, it is estimated that the 102,364 messages included in the corpus reached 62,802,787 users.[28] Their potential impact, or, expressed differently, the total number of devices in which

these messages could have been displayed was 1,852,748,816.[29] These figures alone suffice to justify the need to continue delving deeper into the problem of legal and political disinformation in digital environments, whether it is within the framework of the Catalan conflict or in any other situation characterised by political polarisation.

Lastly, it would be suitable to connect disinformation in the context analysed not only with ideological polarisation but also with *affective polarisation* (resentment towards the political opponent), especially when Spain is one of the advanced democracies which shows higher levels of this index, an aspect on which the rise of the Catalan secessionist movement has laid emphasis (Orriols and León 2021).

Author Contributions: Conceptualization, E.L.-A. and A.S.; methodology, E.L.-A., A.S. and M.-E.F.-C.; software, A.S.; validation, E.L.-A. and A.S.; Formal analysis, E.L.-A. and A.S.; investigation, E.L.-A. and A.S.; resources, E.L.-A., A.S., M.-E.F.-C. and R.R.-C.; data curation, A.S.; writing—original draft preparation, E.L.-A.; writing—review and editing, E.L.-A., M.-E.F.-C. and R.R.-C., visualization, E.L.-A. and A.S.; supervision, M.-E.F.-C. and R.R.-C.; project administration, M.-E.F.-C.; funding acquisition, M.-E.F.-C. and R.R.-C. All authors have read and agreed to the published version of the manuscript.

Data Availability Statement: Restrictions apply to the availability of these data. Data was obtained from Twitter and are available from the authors username URI http://twitter.com/ [username] with the permission of Twitter.

Conflicts of Interest: The authors declare no conflict of interest.

Notes

1   This is the expression used to refer to the institutional and social crisis which is taking place in Spain as a result of the so-called Catalan independence process (the *Procés*), which pursues to achieve Catalonia's independence.

2   Resolution 1/XI of the Parliament of Catalonia dated on 9 November 2015.

3   A/RES/1514(XV); A/RES(1541(XV); A/RES/2625(XXV).

4   It is not relevant for this work to choose among the various definitions of "people" within the context of studies on nationalism, hence our decision to assume the broadest concept, according to which "people" is a group of individuals who see themselves as a people, without any further requirements.

5   Even though experts were not directly asked about their ideological views, they were asked to include among their recommendations other experts whose position was known to be different from theirs.

6   Defined in its internal and external dimension in a previous section.

7   According to this, the mere existence of pro-independence parties in Spain would show that the political principle of self-determination is respected.

8   Experts place emphasis on the non-existence of this right in any country around the world, with the exceptions of Liechtenstein, Ethiopia, and Saint Kitts and Nevis.

9   Or national legal frameworks, regardless of whether they have a constitution or not.

10   The Spanish State.

11   The selection was limited to tweets published in the Catalan language so that we could be sure that they referred to the case study and in order to dodge the abundant contents in Spanish related to other forms of self-determination, such as those of other human groups (indigenous peoples, the Sahara, etc.,) or in other fields such as gender or euthanasia.

12   Sets of terms which are semantically relevant in a text.

13   Logically, the micro-forum may have been extracted from a larger conversation (forum) in which not all tweets include "self-determination", but a decision was made to keep only those which contained that term so that we could focus on them and avoid possible drifts in the conversation. Therefore, each micro-forum is in itself a sample of a bigger forum.

14   The strategy utilised prevented potential biases in the construction of micro-forums, since it was carried out iteratively in two steps: We first built the *hot-words* (frequent words), which are the words with a high level of appearance in every tweet and whose extraction is based on their frequency of appearance range in the entire corpus. All *stop-words*, built from a group of 614 words, were filtered during this stage (Yzaguirre n.d.). In a second step, we identified within the set of dialogues (micro-forums) which

of those words could be regarded as keywords and to what extent. Or, expressed differently, we considered the entire corpus to identify the keywords in micro-forums. In our work, this technique was combined with other metrics, such as the Inverse Document Frequency (IDF*TF), which make it easier to understand the text and the discourse. Several programs in Python language were likewise developed for the extraction and transformation of tweets, their metadata, as well as to detect emotions in tweets. With the aim of building a training corpus and reducing the dimensionality of the problem, deep networks were used to classify content by means of the Keras/Tensorflow library. Twitter's Premium API provides plenty of data, which makes it possible to cross them and to construct a more elaborate text from possible conversations which are generated from the replies (in_reply_to) and the aforesaid retweeting (quoted_tweet).

[15] LSI is successfully used in Information Systems for semantic search from heuristic methods based on the singular value decomposition (SVD) with matrix factorisation.

[16] Geneva Affect Label Coder.

[17] These are usual derogatory expressions referred to Spaniards uttered within the pro-independence context.

[18] Terms and stems used to identify each category of emotion are in Catalan.

[19] Although some of the terms in Table 2 do appear in the messages, their semantic relevance is not sufficiently significant to appear in the topic.

[20] The experts consulted agree that Spain is objectively a full democracy. However, they also point out, subjectively and according to their respective political ideology, that its level of democracy could be improved to a greater or lesser extent. For this reason, we do not consider a tweet as disinformation when it says that Spain is not a democracy, but when that statement is grounded on the supposed lack of compliance with the UN covenants or the actual Spanish Constitution.

[21] Candidate for Mayor of Barcelona by the political party Ciudadanos/Ciutadans in 2019.

[22] He reacts to a demonstration in Barcelona where that right was requested for Catalonia.

[23] The Spanish word REINO "kingdom" deliberately written with Ñ in a derogatory sense.

[24] Imprisonment of 12 politicians and representatives of civil society for events related to the illegal referendum of 1 October 2017.

[25] The term in the original tweet is"divertit", matching "divert*" in Table 3, Amusement/Pleasure/Enjoyment category.

[26] In the original tweet, "agradaria", matching "agrad*" in Table 3, Satisfaction/Happiness/Joy category.

[27] In the original tweet, "tranquil", matching "tranquil*" in Table 3, Relaxation/Serenity/Relief category.

[28] The average number of followers per user in the corpus analysed was 2841.

[29] Calculated on an average of 30 viewings per reached user.

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Article

The Influence of the Negative Campaign on Facebook: The Role of Political Actors and Citizens in the Use of Criticism and Political Attack in the 2016 Spanish General Elections

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Abstract: Social media has become an essential platform in the field of digital political communication. In the context of accommodating electoral campaigns to digital media and the absence of barriers to freedom of expression existing on these platforms, attacks on political rivals and negative campaigns are increasing on social media. This research analyzes the use of criticism on Facebook by political actors during the electoral campaign and citizens' reactions to these messages. The sample ($n = 601$) contains the publications disseminated on Facebook by political parties and leaders during the electoral campaign of the general elections of 26 June 2016 in Spain. The results show that criticism is an emerging resource in the digital communication strategy of political actors, mainly used by the opposition parties and their candidates, who focus their attacks on the party and leader of the Government. Attacks are mainly focused on the professional side of their rivals, although they also give a central role to emotions. Citizens are attracted to these attacks and are prone to interact with posts that include this resource.

Keywords: negative campaign; criticism; Facebook; Spain; electoral campaign; political communication

1. Introduction

In the recent decades, technological advances have transformed electoral campaigns. Both political parties and leaders have adapted their communication strategies to digital media (Stromer-Galley 2014). In this context, some dynamics representative of the offline environment, such as the negative campaigns and criticism of political adversaries, have been gaining prominence in the digital environment (Greer and LaPointe 2004; Klotz 2004). Among other factors, this is promoted by the absence of barriers to freedom of expression on these digital platforms (Shirky 2011).

The disintermediation offered by social media enables political actors not only to disseminate their information but also to take advantage of this space to criticize their adversaries and highlight their defects, errors, and contradictions (Maier and Nai 2021; Stevens 2012; Lau and Pomper 2004). This type of message, linked to negative emotions, generates a larger impact on the audience, who more easily remembers these contents in comparison to those presented from a positive perspective (D'Adamo and Beaudox 2016). Thus, emotions such as fear or frustration are perceived more quickly and cause a greater impression among users (Castells 2012). However, according to some authors (Berganza-Conde 2008; Patterson 1993), the use of the negative campaign by political actors involves risks, such as disaffection or political polarization.

In recent years, social media has become a territory where reproaches, attacks, and even hate speech have increased. Despite the growing importance of using criticism in digital political communication, there are still few studies that analyze how negative

campaigns are carried out on these platforms. Therefore, we still know little about the characteristics of this phenomenon in the digital environment.

Therefore, it seems necessary to provide new evidence on the dynamics that political actors employ to activate negative campaigns in the digital environment, and on the users' reaction to these communication strategies. When it comes to exposing political criticism on social media, Facebook is positioned as the preferred platform for four reasons. The first reason is its unrestricted nature in the construction of the messages. Compared to platforms such as Twitter that limit the number of characters in posts to 240, Facebook offers an open space where political actors can develop their arguments, including criticism and attacks on rivals. Second, it is widely popular both at the user level and in the presence of political parties and leaders. With 1.5 billion users, Facebook is the digital platform most used by citizens worldwide. This makes this social media an attractive space for political actors, who seek to expand the radius of circulation of their messages, including negative ones. Third, because of the multiple forms of interaction. In addition to the "like" button, Facebook enables users to react to messages with varied emotions such as love, laugh, or anger, among others. A potential that is not present in other platforms and which connects with the relevance of emotions in the digital environment. Finally, the fourth reason is the lack of studies on the negative campaigns on Facebook. So far, this dynamic has been studied in environments such as websites (Valera-Ordaz and López-García 2014) or on Twitter (Ceron and d'Adda 2016), but not on Facebook.

To provide new evidence of the use of Facebook in the communication strategy of political actors, this study examines the role of criticism and attacks on rivals in the communication dynamics of the main Spanish political parties and their leaders on Facebook during the 2016 Spanish general elections. This research aims to know the degree and type of criticism exploited by these actors on their Facebook profiles, and to analyze the reactions of users to this type of message.

2. Theoretical Framework

2.1. Negativity in the Electoral Campaign: From Television to Social Media

The emergence of television as a medium of reference for political communication during the 1950s implied a strong change in the strategies used during electoral campaigns, largely specific to marketing, whose objective was to achieve maximum effectiveness (Maarek 2009). Images, much easier for the human mind to recognize and remember (Vogt and Magnussen 2007), together with the introduction of emotions and personal aspects in electoral campaigns, gave way to new practices and styles in the communication strategy of political parties and candidates (Vergeer et al. 2013). One of the dynamics that became most popular in this period is the negative campaign, understood in general terms as "any act consisting of attacking or criticizing the opponent" (Geer 2006, p. 23).

One of the most relevant examples is the presidential campaign of Adlai Stevenson in the United States in 1956. The team of Adlai Stevenson, a Democratic candidate, broadcasted some spots starring the Republican candidate Dwight D. Eisenhower to highlight his unfulfilled political promises and to discredit him in front of his voters (García Beaudoux 2014). Another example of a negative campaign was produced years later and is known as "Daisy Spot" or "Peace, little girl". This famous spot was created by the team of the Democratic candidate Lyndon Johnson in the campaign for the 1964 US presidential election. The advert showed a girl defoliating a daisy flower while a voice-over counted down until a large nuclear explosion appeared on the screen. Despite the fact that it only aired once, the announcement generated much controversy, reinforcing the warmongering and pro-nuclear perception of Barry Goldwater, the Republican candidate (Mann 2011). After this controversy, Lyndon Johnson won the elections. This fact demonstrated that using negative emotions in electoral spots had a greater capacity to mobilize the electorate (García Beaudoux and D'Adamo 2013).

Far from being a one-off phenomenon, the negative campaign has become a growing resource in Western democracies (Schweitzer 2010). In the last decade, the consolidation of social media has favored its growth, thanks, among other factors, to the facilities for freedom of expression that these platforms offer. As happened on television, political actors use these digital media as a vehicle to highlight and amplify the adversary's past or present defects, errors, and contradictions, rather than highlighting their virtues (D'Adamo and Beaudox 2016; Ceron and d'Adda 2016; Valera-Ordaz and López-García 2014). In addition to criticizing the program, ideology, or trajectory of the opponent, there are other attacks based on arguments, both true and false, about his or her character or personal traits (Maier and Nai 2021; Stevens 2012; Lau and Pomper 2004). Therefore, the ideology and political trajectory of political parties and leaders have become significant features in how these actors use criticism in the digital environment. On the one hand, parties and candidates ideologically located at the extremes criticize those who position themselves in the center with greater frequency and intensity (Nai and Sciarini 2018; Lau and Pomper 2004). On the other hand, emerging parties and candidates, whose political trajectory is shorter, are the ones that most base their strategy on the negative campaign, focusing their messages on criticizing their opponents rather than highlighting their achievements. These are scarce as they are new actors on the political scene. On the contrary, the formations and leaders with the longest trajectory tend to propose positive campaigns, highlighting the achievements made throughout their mandates (Valli and Nai 2020). On the other hand, Abejón-Mendoza and Mayoral-Sánchez (2017) point out that, in the Spanish case, the opposite occurs. While traditional parties promote a strategy based on fear, emerging parties focus their messages on generating enthusiasm for political change.

Although criticism and confrontation are inherent to politics (Mazzoleni 2010), cyber campaigns have standardized this type of practice (Greer and LaPointe 2004; Klotz 2004). In addition, the democratization of the communicative space implied by social media has meant that criticism also spreads and can be exercised by new actors, whose role was secondary and residual in previous times (Castells 2009). This dynamic has potentially negative effects because it encourages political disaffection (Patterson 1993) and the appearance of new populist political actors who focus their communication strategy more on negativity than on the formulation of programmatic proposals (Enli 2017). Although some studies (Alonso-Muñoz and Casero-Ripollés 2018; López-Meri et al. 2017) have warned of the weight that criticism has reached during electoral campaign periods, it is still unknown how politicians articulate this type of message on social media. Thus, based on the previous literature, the following research questions are posed:

RQ1: What is the use that political actors make of criticism and who are they targeting on Facebook?

RQ2: What kind of criticism do political actors raise on Facebook?

2.2. The Impact of Criticism on Facebook Users

Social media has become a new space for the expression and transmission of ideas (Mathieu 2015), as well as new means to deliberate on the main political problems that affect society (Bennett 2012; Dahlberg 2007). A role that in previous decades had been occupied by the media, especially television (Cammaerts et al. 2013). This fact explains the growing number of users who use the Internet and social media and the interest of politicians and parties to use them, especially during electoral campaign periods (Alonso-Muñoz et al. 2021; Chaves-Montero et al. 2017; Elmer 2013). Digital technologies have become a space for free expression where any user can openly participate (Benkler 2007). In this sense, social media act as a loudspeaker for public opinion, which arises to challenge public powers and demand accountability to society (Alonso-Muñoz and Casero-Ripollés 2017). The speed, immediacy, and viralization capacity make social media a powerful tool for citizens to express their opinions, supervise the political class, and criticize it for its way of acting (Marcos-García et al. 2017). In addition, aspects such as anonymity or the use of pseudonyms make it possible to increase criticism because it is very difficult to find those

who post these kinds of messages. This impunity encourages others to do the same (Cabo Isasi and Juanatey 2016).

Some studies (Jungherr 2016; Dang-Xuan et al. 2013) maintain that negative comments predominate mainly on social media. Research such as that of Marcos-García et al. (2017) show that citizens use social media as a channel to manifest their criticism and dissatisfaction with politics, mainly using humor or parody. Likewise, other studies show how users increase their interaction in posts where political actors, especially those in the opposition, criticize or attack their adversaries (Ballesteros-Herencia and Gómez-García 2020; Marcos-García et al. 2020). Therefore, negative information produces more impact among users, being perceived more quickly, causing a greater impression, and being remembered more easily than positive information (D'Adamo and Beaudox 2016). In other words, the use of negative emotions activates citizens' attention to a greater extent (García Beaudoux and D'Adamo 2013), especially frustration or fear, which have a paralyzing effect (Castells 2012). In environments such as Facebook, emotions take on special relevance thanks to the multiple forms of interaction that the user has (Fenoll and Cano-Orón 2017; Haro-de-Rosario et al. 2016). Since 2016, this social media has expanded the emotional response to a message. In addition to the usual "like" reaction, users can show other emotions such as love, laugh (haha), surprise (wow), sadness, or anger (Coromina et al. 2018).

Taking these arguments into account, we pose the following research question:

RQ3: How do Facebook users react to criticism issued by Spanish political actors?

3. Materials and Methods

3.1. Sample

The methodology is based on quantitative content analysis. The sample of this research focuses on the electoral campaign of the Spanish general elections held on 26 June 2016. In particular, the 15 official days of the campaign, the day before the election, the election day, and the day after the election day were studied. During this period, the Facebook posts and messages by the Popular Party (PP), the Socialist Party (PSOE), Podemos, Ciudadanos (C's), and Izquierda Unida (IU) were analyzed. Moreover, we analyzed the messages posted by their respective candidates: Mariano Rajoy, Pedro Sánchez, Pablo Iglesias, Albert Rivera, and Alberto Garzón. It should be noted that, although Podemos and IU participated in these elections under the Unidos Podemos coalition, both parties and their respective leaders maintained a differentiated activity on their Facebook accounts, carrying out independent communication strategies. The total sample comprises 601 Facebook messages (Table 1).

Table 1. Distribution of the Analysis Sample.

	Political Actor	Number of Messages on Facebook
Parties	Partido Popular (PP)	76
	Partido Socialista (PSOE)	93
	Podemos	50
	Ciudadanos (Cs)	59
	Izquierda Unida (IU)	95
Candidates	Mariano Rajoy	38
	Pedro Sánchez	55
	Pablo Iglesias	33
	Albert Rivera	14
	Alberto Garzón	88
	Total	601

The Spanish elections held in June 2016 were historic. Previously, on 20 December 2015, two new political parties had emerged in the elections: Podemos, on the left, and Ciudadanos, on the center-right. This meant the end of bipartisanship, embodied by the Partido Socialista (PSOE) and Partido Popular (PP), which dominated the Spanish political system for more than 40 years (Barberà et al. 2019; Orriols and Cordero 2016). The outcome

of the 2015 elections was a very fragmented Parliament, where no political force had a majority, and political factions were required to compromise. After months of negotiations, the investiture of the socialist candidate, Pedro Sánchez, failed as he failed to obtain the necessary support to become president of the Government. As a result, Parliament was dissolved in May and new elections were called on 26 June 2016. The irruption of new political actors generates new alternative discursive strategies to the traditional bipartisanship. Therefore, the 2016 Spanish general elections are a relevant case study for two reasons. Firstly, these elections are the first in which traditional and emerging parties have options to govern. Secondly, the appearance of new political discourses enables the development of new communication strategies in the digital environment.

The choice of Facebook is due to the popularity of this social media among users. According to data from the Digital Report (2021), Facebook has 1.5 billion users in 2021, being the platform with the largest audience worldwide. Likewise, it is also a preferred social media platform within the communication strategies of political actors. In 2020, there were 1089 personal and institutional Facebook accounts of presidents and ministers of the member countries of the United Nations Organization (Twiplomacy 2020). In addition to its high audience, political actors open a Facebook profile because it turns out to be a versatile campaign tool in which they can inform their followers of their electoral program, interact with their followers, and mobilize them to go to vote (Alonso-Muñoz et al. 2021; López-Meri et al. 2020).

3.2. Measures and Procedure

The sample was segmented according to three parameters. First, the axis of political trajectory: PP, PSOE, and IU are three of the parties with the longest history in the Spanish political system, while Podemos and C's are two emerging parties. Second, the ideological axis: PP and C's and their respective leaders are situated as right-wing political actors, while PSOE, Podemos, and IU are left-wing political actors. Third, the axis of the government's position. During the period of this investigation, PP and its leader, Mariano Rajoy, held the presidency of the Government, while PSOE, Podemos, C's, and IU were the parties in the opposition.

This article seeks to analyze the presence of criticism in the communicative strategy of the political actors on Facebook. To this end, it proposes a new analysis model composed of 6 variables and 20 categories. In the case of variables relating to typology and basis of the attack, this model adapts the proposal of García Beaudoux and D'Adamo (2013) for the study of the negative campaign. To carry out the analysis, a list of indicators adapted to the object of study of this research has been prepared. Table 2 shows the analysis proposal used, in which six variables with twenty categories were defined for the study of criticism in the electoral campaign on Facebook.

Table 2. Analysis Proposal.

Use of Criticism	
Yes	The publication contains a critique or attack.
No	The publication does not contain a critique or attack.
Recipient: to Whom the Criticism is Directed	
Political Party	Criticism is directed at a certain political party.
Male or FemalePolitician	Criticism is directed at a certain politician.
Media or journalist	Criticism is directed at a specific media, program, or journalist.
Institution or publicorganization	Criticism is directed at a specific institution or public organization.
Entrepreneur orcompany	Criticism is directed at a specific businessman or company.
Others	Criticism is directed at another actor, not mentioned in the previous categories.

Table 2. *Cont.*

Typology of the Attack	
Personal	Criticism or attack is directed at the personal traits or qualities of a certain actor.
Trajectory	Criticism or attack is directed at the functions or positions previously held by a certain actor.
Political	Criticism or attack is directed at the proposals or positions of a certain actor regarding a topic or question.
Ideological	Criticism or attack focuses on the ideology and values of a certain actor.
Intensity of the Attack	
Direct	Messages in which a certain actor is directly criticized.
Collateral	Messages where a certain actor is criticized while the attack remains in the background. Therefore, the main function of the message is not to criticize.
Structure of the Attack	
Simple	Messages in which only a certain actor is criticized.
Comparative	Messages in which a certain actor is criticized while emphasizing and highlighting positive aspects or merits of oneself.
Reason of the Attack	
Based on data	The criticism or attack is based on data or information, as well as on the statements that the attacked actor has previously made.
Emotional	The criticism or attack is based on language that evokes negative emotions or feelings such as fear, outrage, anger, or disappointment.
Ethical	Criticisms or attacks question the credibility of a proposal or action carried out by a certain actor.
Humorous	The criticism or attack is made from a humorous perspective, to ridicule one or more actors.

The sample data was extracted with the Netvizz application. The analysis was carried out by two coders. The intercoder reliability was calculated with Scott's Pi formula, reaching a level of 0.97. The statistical treatment of the results was done with the SPSS program (v.24) (Powered by IBM, Armonk, NY, USA).

4. Results

4.1. Level of Use and Recipients of Criticism by Political Actors on Facebook

Responding to RQ1, criticism became an emerging mechanism in the communication strategies proposed by political actors on Facebook (Figure 1). A total of 23% of the messages published by these actors contain some criticism or attack. It is relevant as there are no significant differences in the general use of this resource by both political parties and their candidates. While the former includes criticism in 24.1% of their messages, the latter uses this resource in 18% of their publications.

The results reveal two significant trends regarding the use of criticism by political actors, which show that the position of parties and leaders in government and their ideology are determining factors. First, it is observed that the use of criticism is directly conditioned by the axis of the government's position. This way, the opposition parties, that is, PSOE, IU, Podemos, and C's, and their respective leaders, incorporate a greater number of strikes in their messages. On the contrary, PP and Mariano Rajoy, as a party and leader in the Government, hardly use this resource. In the latter case, while the PP only uses it in 9.20% of its messages, Rajoy does not use the attack as part of his communication strategy (Figure 1). Concerning this first trend, it is also worth noting how the political groups in the opposition and their candidates coincide in assigning most of their attacks to the Government, represented by the Popular Party and Mariano Rajoy. IU (63.89%), Pablo Iglesias (50%), and Alberto Garzón (50%) direct half or more of their criticism toward the Popular Party.
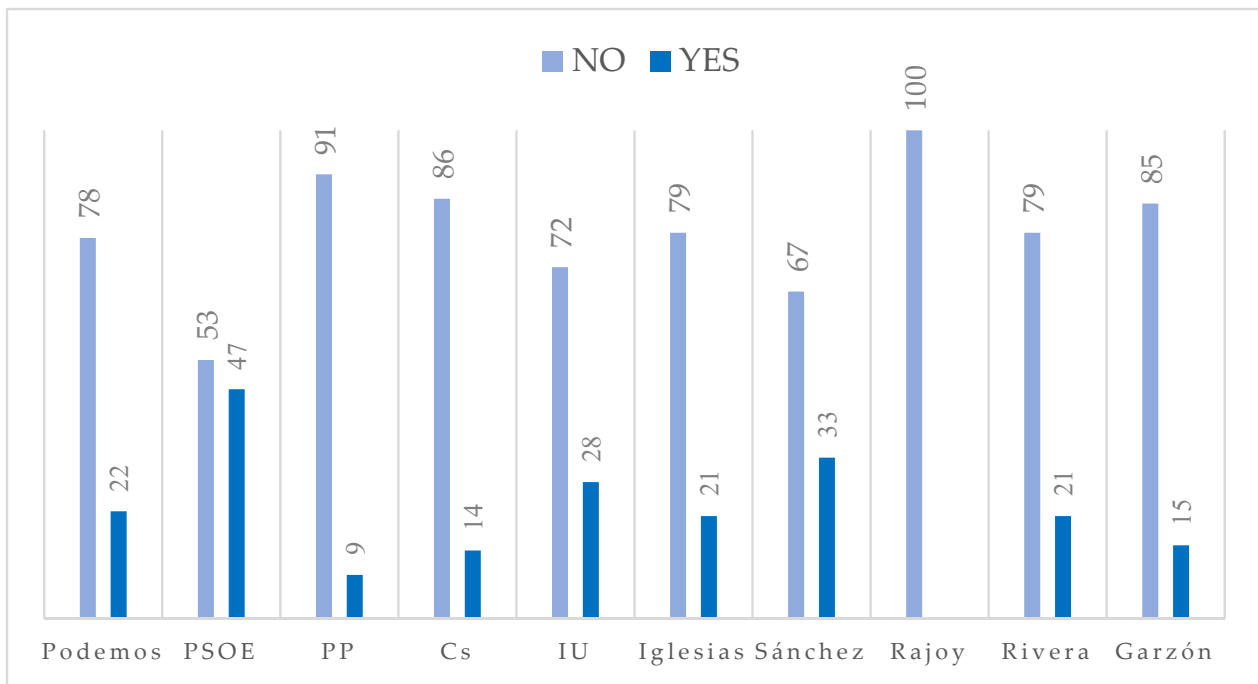
Figure 1. Presence of Criticism in the Facebook Posts of Political Actors (%).

In parallel, PSOE and its candidate, Pedro Sánchez, prioritize a dynamic based on negative personalization. In this sense, both profiles put the criticisms directed at Mariano Rajoy before the Popular Party. Therefore, they place the candidate at the center of their accusations to weaken his figure and political proposals (Table 3). This practice is repeated with Pablo Iglesias, the second actor most criticized by the Socialist Party and its leader. In this case, the attacks directed at Iglesias are conditioned by the ideological position of these actors. As representatives of the left, they fight for the same voters. For this reason, the use of attacks is conveyed to differentiate themselves from rivals.

Table 3. Recipients of Criticism on Facebook (%).

	PP	PSOE	Podemos	IU	C's	Rajoy	Sánchez	Iglesias	Garzón	Rivera
PSOE	14.29	-	7.69	8.33	27.27	-	-	30	-	20
PP	-	13.75	38.46	63.89	36.36	-	20	50	50	20
C's	-	-	-	8.33	-	-	-	-	-	-
Podemos	14.29	10	-	-	18.18	-	8.57	-	-	20
Other political parties	-	6.25	-	2.78	18.18	-	8.57	-	7.14	20
Sánchez	-	-	7.69	-	-	-	-	-	-	-
Rajoy	-	36.25	7.69	-	-	-	31.43	-	7.14	-
Rivera	-	-	-	-	-	-	-	-	-	-
Iglesias	42.86	27.50	-	-	-	-	28.57	-	-	-
Other politicians	-	6.25	15.38	8.33	-	-	2.86	-	14.29	-
Media/Journalists	-	-	-	-	-	-	-	-	-	-
Public organizations	-	-	7.69	2.78	-	-	-	10	21.43	-
Entrepreneur/Company	-	-	-	2.78	-	-	-	-	-	-
Other actors	28.57	-	15.38	2.78	-	-	-	10	-	20
TOTAL	100	100	100	100	100	-	100	100	100	100

The second trend reveals that the ideological dimension is decisive in the level of the use of criticism, especially in the case of left-wing political parties such as PSOE (47.3%), IU (28.4%), and Podemos (22 %). However, right-wing parties like C's (13.6%) and PP (9.2%) make a smaller use of criticism. In the case of the candidates, the ideological factor is less decisive since all of them include attacks in their messages, except for Mariano Rajoy, who does not use this resource. Pedro Sánchez is the leader who criticizes the most (32.7%), followed by Pablo Iglesias (21.2%), Albert Rivera (21.4%), and Alberto Garzón (14.8%) (Figure 1).

4.2. Typology of Criticism Issued by Political Actors on Facebook

Concerning RQ2 on the type of criticism used by political actors on Facebook, the data reveal that the collective–individual dimension is a determining factor. While political parties tend to prioritize the use of attacks on the professional role of their rivals, candidates tend to focus their criticism on the values and ideology of their opponents. Specifically, the type of criticism most exploited by the parties is about the trajectory of their political rivals (46.38%), that is, messages where they attack and discredit the functions and decisions made by their opponents, as well as their current or previous position within the political system. C's (62.5%), IU (55.56%), and PSOE (52.27%) are the formations that prioritize this strategy the most over other types of attacks. Only the candidates Alberto Garzón (61.64%) and Pedro Sánchez (55.56%) coincide with their respective parties and make considerable use of criticism centered on the trajectory of their political rivals (Figure 2).

Complementarily, the second type of criticism most used by the parties is the political attack (24.64%). This focuses on criticizing the measures and proposals that opponents present in their electoral program. Although the PP (57.14%) is the only profile that prioritizes political attack over other types of criticism, IU (33.33%), Podemos (27.27%), PSOE (25%), and C's (25 %) also use it in a considerable part of their publications.

Concerning leaders' strategy, criticisms directed at the values and ideological positioning of their rivals are the most predominant. The use of ideological attacks stands out especially in the publications of Albert Rivera (100%) and Pablo Iglesias (42.86%). It should be noted that Iglesias is the only one who coincides with his party, which also prioritizes this type of attack when addressing rivals (45.45%) (Figure 2). As representatives of emerging parties, these leaders use this type of criticism to assimilate traditional parties, such as PP or PSOE, with the elite and the establishment. Meanwhile, this type of criticism is indirectly linked to requests for political and democratic renewal. In other words, its use is based on criticizing the position of power of the traditional parties in the Spanish political system and focuses on the need for political change and democratic renewal.

At the same time, there is a growing use of personal attacks. This dynamic is used especially by PSOE (22.73%) and Pedro Sánchez (27.78%). Next are Podemos (18.18%) and Pablo Iglesias (14.29%), as representatives of the left, and the Popular Party (14.29%) in the right wing (Figure 2). These parties and leaders coincide in articulating part of their communication strategy around the attributes, traits, and other personal aspects of their rivals. Thus, when these profiles use criticism, their political discourse is reduced to a confrontation between personalities. On the contrary, they do not delve into other purely political questions such as, for example, whether or not their opponents fulfill their functions as politicians. This communicative strategy is directly related to the phenomenon of political personalization, where political actors tend to criticize leaders more than parties.

If we focus on how political actors carry out their criticisms, the data reveals three significant strategies. First, regardless of ideology or trajectory, parties and leaders tend to use criticism collaterally (63.32%) so that the main function of their messages is not a direct strike on their rivals. In other words, while political actors talk about other issues in their publications, they take advantage of these messages to implicitly criticize other parties, rivals, events, or ideas.
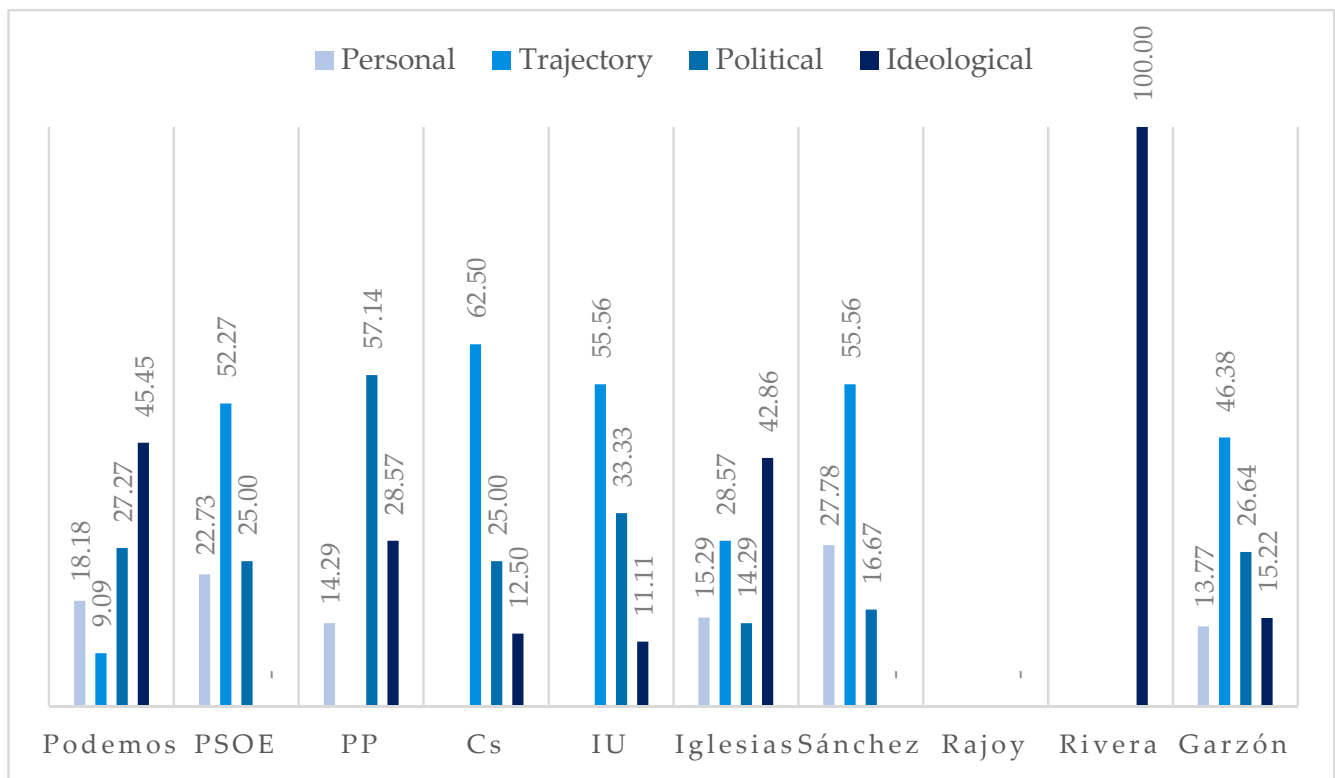
Figure 2. Type of Criticism Used by Political Actors on Facebook (%).

This dynamic is complemented by the second strategy used by political actors when they use criticism in their posts. The results show that both parties and leaders use comparative attacks more (63.04%) than simple attacks (36.96%). This means that when they attack their opponents and other agents, they also emphasize their achievements or positive aspects about themselves. In other words, they propose a destructive-constructive strategy combining criticism to attack their opponents with a proposal to incorporate and emphasize their ideas. This strategy is observed in the profiles of C's (87.5%) and PSOE (77.27%), on the one hand, and of Rivera (100%), Sánchez (88.89%), and Iglesias (85.71%), on the other (Table 4). These opposition leaders use this strategy to emphasize errors and unfulfilled commitments of the Popular Party, as a party in the Government. At the same time, they position themselves as a political alternative to the Government. In contrast, there are messages whose argument is exclusively based on the attack (simple attack). These messages highlight the negative characteristics of the image, trajectory, or political management of rivals and other actors. This strategy is used mainly by Izquierda Unida (66.67%) and its leader, Alberto Garzón (76.92%).

Finally, the third strategy focuses on how political actors build the basis for their criticism. In general, both parties and leaders articulate the use of attacks based on emotions (44.93%) (Table 4). These are messages that include expressions, images, or other resources used to evoke feelings and emotions. It mainly deals with negative emotions such as fear, disappointment, or anger. In this sense, they use the strength and impact of these emotions as a way to attract users, more likely to focus their attention when there is a negative context, as indicated by previous research (García Beaudoux and D'Adamo 2013).

However, there are some exceptions to this dynamic. On the one hand, parties such as the PSOE (45.45%), or candidates such as Alberto Garzón (46.15%), support most of their publications on criticisms of an ethical nature (Table 4). In this sense, they focus on negatively evaluating the lack of integrity, honesty, or trust of a particular political party, leader, proposal, or action. As political actors of the opposition, they focus on the Popular Party and Mariano Rajoy.

On the other hand, criticism based on data or information has a lower level of use than the previous typologies (21.01%). Crucial in its employment is the ideology of political actors. The use of C's (37.5%) stands out as the party that most discredits its rivals, referring to empirical data, information, or statements they have previously made (Table 4). Using this type of strategy, they try to reinforce their attacks with the credibility and legitimacy that the data provides.

Table 4. How Political Actors Spread Criticism on Facebook (%).

	PP	PSOE	Podemos IU		C's	Rajoy	Sánchez	Iglesias	Garzón	Rivera	TOTAL
						Intensity					
Direct	14.29	22.73	72.73	37.04	25	-	50	28.57	61.54	66.67	37.68
Collateral	85.71	77.27	27.27	62.96	75	-	50	71.43	38.46	33.33	62.32
					Structure of the attack						
Simple	57.14	22.73	45.45	66.67	12.5	-	11.11	14.29	76.92	-	36.96
Comparative	42.86	77.27	54.55	33.33	87.5	-	88.89	85.71	23.08	100	63.04
					Reason of the attack						
Based on data	14.29	22.73	27.27	22.22	37.5	-	11.11	28.57	15.38	-	21.01
Emotional	85.71	27.27	54.55	55.56	25	-	44.44	71.43	38.46	100	44.93
Ethical	-	45.45	18.18	3.7	37.5	-	33.33	-	46.15	-	27.54
Humorous	-	4.55	-	18.52	-	-	11.11	-	-	-	6.52

Finally, a petty but incipient use of humor is observed in the criticisms of political actors on Facebook. This formula is detected in the accounts of IU (18.52%), Sánchez (11.11%), and PSOE (4.55%), who use it to ridicule their political opponents, though in a low percentage (Table 4). In this sense, political actors are beginning to moderately incorporate humor into their communication strategy and, in particular, in using criticism to attract more attention from users.

4.3. The Reaction of Users on Facebook to the Criticism Issued by Political Actors

It is relevant to delve into the reaction that this resource has generated in users present on Facebook. Thus, to answer RQ3, all the parameters that promote interaction on Facebook have been studied. That is, the comments, shares, and all different reactions that this social media allows: like, love, surprise (wow), laugh (haha), sad, and angry.

The results show three significant dynamics regarding users' reactions. First, messages including specific types of criticism obtain the highest number of comments and shares. As shown in Table 5, the publications that use this device have generated an average of 601.16 comments and 2681.64 shares, compared to the 571.60 comments and the 1980.91 shares of the messages excluding any sort of attack. This outcome indicates that users are more likely to incorporate comments and share those posts where criticism prevails. This dynamic may be the result of two factors. On the one hand, users support criticism with their comments while taking advantage of it to show their disagreement or dissatisfaction with the issue discussed. On the other, users extend criticism by sharing messages launched by political actors and assume them as their own.

Second, it has been detected that the posts without criticism obtain a higher average of positive or neutral reactions (Table 5). That is, messages where programmatic proposals are shared, an achievement or a personal aspect of political leaders is praised, among others, are valued with a higher number of Like, Love, Surprise, or Laugh. In this context, however, it should be considered that users do not always intend to show their support since reactions such as surprise or laughter are sometimes carried out to show irony in front of a message.

Table 5. Average Interaction According to Whether the Messages of the Political Actors Contain Criticism.

Critics	Commentaries	Shares	Like	Love	Surprise	Laugh	Sad	Angry	Total Reactions
Yes	601.16	2681.64	3653.67	334.38	6.77	56.10	33.40	74.81	4159.14
No	571.60	1980.91	3762.10	447.41	7.86	58.80	18.46	26.42	4321.05

Finally, the results also suggest that the messages containing criticism receive the most negative reactions on average. Thus, users show intense sadness or anger when the publications shared by the analyzed political actors emphasize negative aspects (Table 5). The samples of anger are particularly noteworthy (74.81) and are higher when the critical messages are published by the parties and leaders.

5. Conclusions and Discussion

The results contain several original contributions that are applicable beyond Spain and reveal significant dynamics which enable us to broaden our knowledge about two components: first, the role of criticism in the communication strategy of political actors on Facebook during the electoral period; and second, how users of this social media react to this type of communication device. Specifically, five contributions stand out.

First, the results prove the presence of criticism as part of the communication strategy of political actors on Facebook. As observed in the case of different users in the digital environment such as citizens (Marcos-García et al. 2017), political parties, and leaders, all these take advantage of the disintermediation and openness offered by platforms like Facebook to start introducing criticism and attack into their discourse in the digital context. They use these messages to express their dissatisfaction and disagreement with certain proposals or actors (Jungherr 2016; Dang-Xuan et al. 2013). Criticism is an emerging device in the communication strategy of political actors (RQ1). They regard Facebook as a vehicle to self-promote their figure while condemning adversaries, criticizing the defects, errors, and contradictions that they may have committed (D'Adamo and Beaudox 2016; Ceron and d'Adda 2016; Valera-Ordaz and López-García 2014). However, as the previous literature has shown, this dynamic does not appear as a consequence of the impact of the Internet and social media but was already present in the offline electoral campaigns (Mazzoleni 2010). By introducing criticism in their messages on social media, parties and leaders exploit the characteristics of these platforms to introduce intrinsic dynamics of the political sphere (Stromer-Galley 2014; Valera-Ordaz and López-García 2014; Schweitzer 2010; Greer and LaPointe 2004; Klotz 2004).

Concerning this idea, the use of criticism by political actors on Facebook focuses on discrediting the image of their political rivals (RQ1). On the contrary, other actors linked to politics, such as the media or public institutions, receive little criticism. This use of criticism to attack political leaders is conditioned by two important parameters: ideology and position on the government–opposition axis. On the one hand, the ideological factor is decisive in the use of criticism on Facebook. In particular, left parties employ the attack the most in their digital communication strategies. On the contrary, right-wing parties make less use of this device on Facebook. On the other hand, the position on the government–opposition axis of both the formations and their respective candidates closely influences how they use criticism on Facebook. Thus, while the opposition political actors introduce a large number of attacks in their messages, both the party and the government leader barely employ this device. This idea is in line with what has been pointed out in the previous literature, which indicates that parties and leaders ideologically situated at the extremes criticize the moderate ones with greater frequency and intensity (Nai and Sciarini 2018; Lau and Pomper 2004). In this case, formations such as Izquierda Unida or leaders such as Pablo Iglesias and Alberto Garzón, all located in the opposition and with a left-wing ideology, are the most critical of the Popular Party, a formation in the Government, belonging to the right-wing moderate.

Our second contribution is related to the type of criticism employed by political actors on Facebook (RQ2). In this case, the collective–individual axis is decisive, since the results show differences between the strategy proposed by the parties and the leaders. The parties emphasize the attack on the profile, focusing on the functions or positions held by opponents. Furthermore, they focus on political attacks, focusing on the electoral program of rivals. In other words, they focus their criticism on the professional role of their opponents. In contrast, leaders, and representatives of emerging parties, prioritize ideological attacks, targeting the beliefs and values of their political rivals. Thus, new parties try to differentiate themselves from the consolidated formations by suggesting proposals based on democratic regeneration and political change. This dynamic displays what has been pointed out by Valli and Nai (2020), who suggest that recently appearing parties, having a much shorter trajectory than traditional parties, tend to differentiate themselves from their opponents by highlighting their errors or defects rather than highlighting their achievements which are inexistent due to their recent emergence on the political scene. Regarding the personal attack centered on the attributes or personality traits or image of political rivals, although being in a developing state, it has also been used by the analyzed political actors. Thus, coinciding with the previous literature, parties and leaders find on social media such as Facebook a channel to criticize mainly the program, ideology, or trajectory of the opponent, but also other characteristics of the character or personality of rivals (Maier and Nai 2021; Stevens 2012; Lau and Pomper 2004).

The results reveal a fourth important finding concerning how political actors use criticism in their messages on Facebook (RQ2). Both political parties and leaders articulate criticism in their communication strategy around the use of emotions. To attract users' attention, political actors criticize their opponents by appealing to emotions. These data correspond to the findings of Abejón-Mendoza and Mayoral-Sánchez (2017) that confirm that in the 2016 Spanish general elections, the use of Facebook by the candidates was oriented towards fear and enthusiasm. Specifically, the traditional parties enhanced the emotion of fear, and the emerging parties focused their messages on creating illusion and enthusiasm for political change. This dynamic is directly related to the last of the findings, which shows that users react differently when messages contain attacks and when they do not (RQ3).

Coinciding with what was pointed out by previous literature, users increase their interaction when the posts issued by political actors include some type of criticism (Ballesteros-Herencia and Gómez-García 2020; Marcos-García et al. 2020), especially by sharing or commenting on those messages. At the same time, users use Facebook's tools to show anger and sadness in the publications where this resource appears. Therefore, we have demonstrated that negative emotions attract greater attention from users, who are prone to react to messages containing these types of emotions (García Beaudoux and D'Adamo 2013; Castells 2012). In this sense, it is observed how social media such as Facebook have become a space where users can actively participate in the political debate and show their support or dissatisfaction with the discourse shared by political actors (Marcos-García et al. 2017). This is a dynamic that can be problematic because it could increase the political disaffection of citizens and become a threat to democracy (Patterson 1993).

The results of this research show that criticism on Facebook is a complex device that goes beyond the simple attack on a political rival. Parties and leaders use it in the field of digital political communication, depending on several factors such as ideology, trajectory, or position on the government–opposition axis. This way, criticism is positioned as a strategic tool in electoral communication posed by political actors on social media. In this sense, it would be interesting to continue advancing in the study of criticism on social media to analyze if the use of this resource has increased or strengthened with the appearance of new far right political parties both at the national and international context.

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Article

Global Spaces for Local Politics: An Exploratory Analysis of Facebook Ads in Spanish Election Campaigns

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Abstract: Sponsored content on Facebook has become an indispensable tool for implementing political campaign strategies. However, in political communication research, this channel is still unexplored due to its advertising model in which only target audiences are exposed to sponsored content. The launching of the Facebook Ad Library in May 2018 can be considered a turning point in this regard, inasmuch as it now offers users direct access to ads paid for by political parties, among other advertisers. This paper analyzes some aspects of the strategies implemented by six national parties during the campaigns running up to the two general elections held in Spain in 2019, by performing an analysis on a corpus of 14,684 ads downloaded directly from the Facebook Ad Library. It also provides evidence of the different emphasis placed by the parties on sponsored content. For its part, an analysis of ad scheduling shows how the publishing of ads was stepped up as polling day approached, while also revealing the practice of posting political content way in advance of election campaigns.

Keywords: political communication; election campaign; political parties; Facebook ads; electoral advertising; 2019 Spanish general elections

1. Introduction

Online advertising has become increasing more relevant in election campaigns (Broockman and Green 2014; Kim et al. 2018). In this regard, Facebook stands out as one of the most influential social networking sites (Karpf 2016). For advertisers, the possibility of reaching target audiences chosen on the basis of their profiles and interests, as well as calculating ad spend very precisely, makes this advertising model extremely appealing. For these same reasons, election campaign staff incorporated this tool in their strategies, and has thus become a consolidated feature in election campaigns (Campos-Domínguez and García-Orosa 2018; Kreiss and McGregor 2018). However, for political communication researchers, this channel was still, by and large, opaque due to the fact that Facebook ads only reached intended target audiences. The few studies addressing this issue have solved this problem with the help of third parties (Ridout et al. 2021; Silva et al. 2020).

In recent years, sponsored content on social networking sites has given rise to new research questions and objectives, including issues like the ad spend of political parties and the central role now played by tech giants in new electoral contexts (Bakir and McStay 2018; Doyle 2015). Facebook has been the object of many studies addressing the need for its regulation (Dommett and Power 2019; Plantin et al. 2018), its political influence as a global power in foreign countries (Sinclair 2016) and the likelihood of disseminating misleading sponsored content (Mustafaraj and Metaxas 2017).

The use of Facebook for electoral purposes has been frequent since its launch. Political parties have posted content on this social networking site to gain visibility among the electorate on the Internet and engage and mobilize their voters online and offline

(Koc-Michalska et al. 2021). Political organizations identify, in Facebook, valuable characteristics during electoral campaigns, such as direct communication with users, control of the content, and informality and authenticity in the interaction (Dyrby and Jensen 2012). However, these affordances are limited by the risk of negative online reputation, critical media attention, and scarce resources (Kalsnes 2016).

The role played by Facebook in election campaigns came under the global media spotlight due to the Cambridge Analytica scandal in March 2018 (Isaak and Hanna 2018; Richterich 2018; Tuttle 2018). This political consulting firm provided services that took advantage of the targeting capacities of the Facebook Ads platform. The scandal involved the fraudulent use of personal data, which was used to build powerful algorithms capable of predicting the dominant psychological traits of individual Facebook users with a very high degree of accuracy (Kosinski et al. 2013; Youyou et al. 2015). The relevance of this prediction can be regarded as being crucial in a persuasive communication context, as the messages conveyed will be much more convincing for receivers if tailored to their personality traits. So, considering the digital footprints left by Facebook users, together with the capacity for displaying ad content that matches user profiles, the powerful influence of this platform in election campaigns should not be underestimated.

As a consequence of the Cambridge Analytica scandal, in May 2018, Facebook launched its Ad Library, on which the content sponsored by political parties can be consulted by any user. This includes text, image, and video, as well as information on the spend, impressions, and scheduling of each ad. This new resource has opened up promising avenues for political communication researchers. Accordingly, the intention here is to delve into the data provided by this library in two of the first election campaigns to be affected by this new transparency policy, namely, those running up to the Spanish general elections held in May and November 2019. This question is particularly critical in Spain, where corruption polarizes the political debate and citizens demand more transparency from the parties (Pérez-Curiel et al. 2021).

The corpus, obtained directly from the Facebook Ad Library, was made up of 14,684 ads published by six Spanish national parties during the two election campaigns. As far as can be gathered from the literature, apart from the research conducted by Edelson et al. (2020), this study is among the first to have explored this information source (see also Cano-Orón et al. 2021).

The main objective here is to analyze ad spend and scheduling patterns, plus the subjects broached by the six national parties in those two election campaigns. The possibility of conjoining these three aspects should cast some light on the strategies underpinning the different emphasis placed by the political parties on advertising on Facebook during the campaigns. This research thus contributes to gain further insights into the impact of political advertising on Facebook, while providing the wherewithal to address some of the issues raised by previous researchers.

This paper is structured as follows. After discussing political advertising on Facebook and its Ad Library in more depth, the political context in which the two general elections were held in Spain in 2019 is described. Following this, the methodology employed is explained and the results are presented and discussed. Lastly, the limitations of this research are set out and several future lines of research are proposed.

1.1. Political Advertising on Facebook

The Internet has given rise to new forms of ad production and consumption (Doyle 2015; Kim et al. 2018; Rossini et al. 2018). As one of the driving forces behind contemporary economic growth, the Internet has contributed to the expansion and fine-tuning of marketing techniques in current media industries thanks to its capacity to extract and process big data (Fuchs 2016). Together with Google, Facebook is currently leading the field in the digital advertising industry Karpf (2016), whose revenues are based on the monetization of socialization and interaction on its platform (Sinclair 2016).

Via the Facebook Ads platform, sponsored posts appear in users' newsfeeds. This tool offers companies the opportunity to reach "customized audiences" based on a broad set of variables including location, age, sex, marital status, interaction with other pages, business interests, and political orientation, among others (Kim et al. 2018; Kreiss and McGregor 2018). The newsfeeds of users who match the profiles selected by companies receive their sponsored posts. Facebook allows companies to record the reactions of users to those posts, thus providing them with valuable feedback about the effectiveness of the different strategies implemented by them (Dommett and Power 2019; Karpf 2018; Moore 2016).

There are two main factors that influence in the final advertising spend of a company. Facebook's auction system to post ads compels advertisers to raise the cost per ad to have more possibilities to show that ad. In addition, the individual ad cost will depend on the time period in which the ad is activated. In consequence, the final cost of an ad depends mainly on the maximum cost established by the sponsoring company, the demand of other advertisers for reaching the same user profile, and the activation period of the ad.

As with other public organizations, political parties have cottoned on to the benefits of Facebook's advertising tool (Kreiss and McGregor 2018). As could not be done otherwise, they have leveraged this extremely useful channel to reach specific audiences, especially undecided voters, with tailored messages during election campaigns (Dommett and Power 2019; Kim et al. 2018). For Facebook, such campaigns have become a significant source of revenue (Bakir and McStay 2018; Haenschen and Wolf 2019; Kreiss and McGregor 2018). In this complex scenario, some scholars have raised concerns about the power of this communication tool, which is capable of reaching specific voter profiles, as well as about Facebook's economic interests given its quasi monopolistic position (Gray et al. 2020; Plantin et al. 2018). Researchers have inquired into the steps that social media should take when fake news is distributed as sponsored content on their platforms (Bakir and McStay 2018; Mustafaraj and Metaxas 2017; Gray et al. 2020), how countries should tackle the influence of these global companies (Sinclair 2016), where the line between advertising and propaganda should be drawn (Tandoc et al. 2018), and the extent to which regulating their political use would affect the benefits that parties are currently deriving from new online campaigning techniques (Doyle 2015).

Sponsored content on Facebook is intended to reach only specific target audiences, which makes it very difficult to obtain reliable data for research purposes. Silva et al. (2020) built a database of Facebook ads posted by political parties during the 2018 Brazilian elections, with the help of 2000 volunteers. Ridout et al. (2021) examined a database of ads posted on Facebook by 24 different US Senate campaigns in 2018, created by a market intelligence firm. Their findings pointed to the strong relationship between the intended goals—including mobilization, persuasion, and crowdfunding—and the campaign stage in online political advertising. As the polling day came closer, ad scheduling became more critical. These researchers highlighted the difficulties in identifying election campaign strategies in Facebook ads, due, among other reasons, to the fact that the posting of sponsored content usually started well in advance of the campaign per se. The conclusions of both of these pioneering studies of political advertising on Facebook empirically confirmed the relevance of this channel in the field of political communication research.

The Cambridge Analytica scandal (Bennett and Gordon 2020) contributed to overcome the difficulties inherent in studying this advertising channel. One of the measures implemented by Facebook to resolve this crisis was the creation of the Facebook Ad Library, launched in May 2018, with aim of allowing the public access to posts sponsored by political parties and public organizations. In addition, Facebook provided relevant metadata about each ad: spend, the number of impressions, scheduling, and a basic profile of the target audience.

The intention behind the launching of this library was to enhance the ad platform's transparency. One of the first election calls after its launching were the general elections held in Spain on 28 April 2019, which were subsequently repeated on November 10 of the

same year. The following section offers a brief overview of the political context in which both general elections were called.

1.2. Political Context of the 2019 General Elections in Spain

In the 2010s, Spanish politics underwent a profound transformation. Two issues with a bearing on this study stand out. The first was the political fragmentation at a national level. Traditionally up to 2015 there had been a two-party system, with the Spanish Socialist Workers' Party and the conservative People's Party alternating in power. Nationwide dissatisfaction with the political establishment, which began to make itself felt after the 2011 general elections, led to the emergence of two parties as real alternatives to the Spanish Socialist Workers' Party and the People's Party (Boix Palop and García 2014).

On the one hand, the left-wing party Podemos was founded in the aftermath of the 15-M protests, which called for, among other things, a politics untainted by corruption and focusing on the real problems of the citizenry (Domínguez and Giménez 2014); on the other, the influence of the center party Citizens, which had been founded in Catalonia in 2006 as a liberal-constitutional alternative to the pro-independence parties, began to be felt on the national political stage (Orriols and Cordero 2016). Following the 2015 December general elections, none of the parties with seats in Parliament were capable of forming a government, for which reason they were repeated in June 2016. The main difference in this second general election call was the coalition between two left-wing parties, Podemos and United Left, under the name of Unidas Podemos.

The new minority government, led by Mariano Rajoy of the People's Party, almost immediately ran into trouble. In October 2017, the regional government of Catalonia called a referendum for independence, which was declared illegal by the Constitutional Court. This political conflict presented a central role during Catalan elections in December of the same year (Carratalá and Palau-Sampio 2019). In June 2018, Prime Minister Rajoy was forced out of office after losing a no-confidence vote in Parliament, which was called after one of the People's Party's treasurers had been convicted of corruption[1], with Pedro Sanchez of the Spanish Socialist Workers' Party, who had filed the motion, taking office. Against this backdrop, the right-wing party Vox started to take off. The general elections held on April 28, 2019, resulted in a parliament that was even more fragmented than in 2016 (Simón 2020). Five national parties won seats in Parliament: the Spanish Socialist Workers' Party, the People's Party, Unidas Podemos, Citizens, and Vox. As none of the parties were capable of forming a government, new elections were called for 10 November 2019. In accordance with Spanish electoral law, the campaign lasted eight days and electoral expenditure was cut by half. On this occasion, a coalition between Spanish Socialist Workers' Party and Unidas Podemos, with the support of handful of regional parties allowed a government to be formed (Rodon 2020; Simón 2021). Previous investigations have shown that social politics, territorial model, and economy were vital issues in the public debate during these elections (Pérez-Curiel and García-Gordillo 2020).

Along with the collapse of the two-party system in Spain, the other major issue over the past decade has been the impact of the Internet on political communication. The parties emerging during the 2010s have gone to greater lengths to gain visibility on social media, since this has allowed them to circumvent the mainstream media in order to engage the electorate directly (Gerbaudo 2019). All the Spanish parties deployed a wide range of digital tools in their 2015 and 2016 general election campaigns (Dader and Campos-Domínguez 2017; López-García and Valera-Ordaz 2017). The automated dissemination of messages and big data analysis techniques were incorporated in the electoral toolkit, in which audience segmentation had become a prime strategy (Campos-Domínguez and García-Orosa 2018; Anonymized).

From a digital communication perspective, the campaigns running up to the two 2019 general elections were the first in Spain in which sponsored content posted by political parties on Facebook could be audited. Accordingly, the aim of this study is to shed light on the use of the Facebook Ad platform by the main Spanish political parties during those

two campaigns, in an initial attempt to identify the strategies that they implemented in this respect. Given the novel nature of this research, the focus is placed on basic issues, paying special attention to ad spend and its relationship with the topics addressed in the Facebook ads. To this end, the following research questions (hereinafter RQ) were formulated:

- **Research Question 1**: Were there any differences in Facebook ad spend among the main parties during the two 2019 general election campaigns in Spain?
- **Research Question 2**: Was there any scheduling pattern as regards the Facebook ads posted by the main parties during the two 2019 general election campaigns in Spain?
- **Research Question 3**: What were the main topics, in terms of their estimated spend, addressed in the Facebook ads posted by the main parties during the two 2019 general election campaigns in Spain?

2. Materials and Methods

The main national parties leading the polls during the pre-campaigns and campaigns running up to the two general elections held in Spain in 2019 were the Spanish Socialist Workers' Party, the People's Party, Cs, Unidas Podemos, and Vox. Given that Unidas Podemos did not have its own account in the Facebook Ad Library in 2019, both Podemos and United Left were included for building the corpus, along with the rest of the parties with a national scope.

Facebook offers the option of requesting information about sponsored ads through its application programing interface (API). In 2019, however, only data on posted content could be obtained in this way, in sharp contrast to the information now available in the recently launched Facebook Ad Library. For this reason, a Python web scraper was coded to download information on the ads posted by the six selected Spanish parties during the two 2019 general election campaigns from the Facebook Ad Library. This information included the text and the image or video appearing in each ad, along with scheduling, spend, and number of impressions. Along with the availability of the data to explore the use of ads by political parties, we consider that this social network presents a central role to understand political communication on the Internet (Dyrby and Jensen 2012; Kalsnes 2016; Koc-Michalska et al. 2021).

The web scraper downloaded the ads for two periods: in May 2019 for the first campaign, and in November 2019 for the second campaign. We did not limit the sample to an specific target audience or cost. The corpus was finally made up of 14,684 Facebook ads (see Table 1).

Table 1. Number of ads, estimated impressions, and spend by party (*n* = 14,684). Source: Own elaboration.

Elections	Number of Ads	Estimated Spend (€)	Estimated Impressions
Citizens			
28A	6098	448,300	51,582,500
10N	2462	135,800	18,854,000
Total	**8560**	**584,100**	**70,436,500**
United Left			
28A	13	4500	1,148,000
10N	5	250	59,500
Total	**18**	**4750**	**1,207,500**

Table 1. *Cont.*

Elections	Number of Ads	Estimated Spend (€)	Estimated Impressions
People's Party			
28A	3609	442,850	57,295,000
10N	908	46,500	2,940,500
Total	**4517**	**489,350**	**60,235,500**
Podemos			
28A	379	813,650	100,110,500
10N	545	181,450	29,881,500
Total	**924**	**995,100**	**129,992,000**
Spanish Socialist Workers' Party			
28A	336	51,800	18,492,500
10N	285	17,550	4,275,000
Total	**621**	**69,350**	**22,767,500**
Vox			
28A	0	0	0
10N	44	2800	881,500
Total	**44**	**2800**	**881,500**
TOTAL			
28A	10,435	1,761,100	228,628,500
10N	4249	384,350	56,892,000
Total	**14,684**	**2,145,450**	**285,520,500**

Notes: 28A = April 28, 2019, General elections; 10N = November 10, 2019, General elections.

To answer RQ1, two information sources were contrasted: the 2019 Facebook financial report and the study ad database. The inconvenience of this second source is that the Ad Library provides information on the spend and impressions of individual ads in numerical ranges. To resolve this problem, the ranges' midpoints were established as the numerical values for arriving at estimates in both cases. This approach was regarded as the best option, given that the Ad Library does not offer any further information on these variables.

Regarding RQ2, it was found that the corpus had a limitation. The Ad Library did not specify the last day of publication for all the ads in the corpus. Specifically, only 7566 out of the 14,684 ads included this information. Nevertheless, as this subsample accounted for roughly half of the corpus, the scheduling data available for the other ads were taken as a reliable estimate in this respect during both election campaigns.

Finally, as to RQ3, inquiring into the topics addressed by the parties in their Facebook ads, a content analysis was performed on the corpus to identify the main issues broached by the six parties during the two campaigns. A preliminary exploration of the dataset revealed that many ads repeated the same text and graphic elements. These ads conveyed an identical message, but differed in their metadata. In light of this, a content identifier was created to label the same messages included in different ads; a group that will be referred to here as visually identical ads (hereinafter VIAs). Since 1743 VIAs were identified in the corpus, the content analysis was performed on them and the results extrapolated to the 14,684-ad corpus.

The categories for the content analysis were as follows: (1) party promotion; (2) pacts, coalitions, and surveys; (3) social policy; (4) economic policy; (5) international policy; (6) employment; (7) national unity (independence, the country's glorification); (8) feminism; (9) education and science; (10) environmental issues; (11) democratic quality (corruption); (12) depopulation of rural areas; (13) immigration; (14) infrastructure; and (15) others. Similar topics were employed for content analysis for social networks' topics in the 2019 elections in Spain (Pérez-Curiel and García-Gordillo 2020).

Two of the authors coded the VIA corpus (accounting for 10% of the 14,684-ad corpus), while inter-rater reliability was assessed using Krippendorf's alpha, obtaining a value ($\alpha = 0.904$) higher than the typically accepted "rule of thumb" cutoff threshold ($\alpha = 0.8$) (Krippendorf 2013).

3. Results

3.1. The Parties' Facebook ad Spend during the Two Election Campaigns

According to the 14,684-ad corpus, the six Spanish parties spent more than €2 million on Facebook ads during the two 2019 election campaigns. In addition, it is estimated that this sponsored content generated more than 285 million impressions during both campaigns (Table 1). Parties spent €7.05 million on average on both campaigns (Calderón 2019a, 2019b), so that 28.57% of the budget was allocated on Facebook that year.

Two parties stood out in terms of ad creation and spend on Facebook. Citizens was the party that published the largest number of ads, totaling 8560 (58.29% of the corpus), in both election campaigns, a figure doubling that of the party coming in second place (the People's Party, with 4517). However, this party did not have the highest spend, nor did its ads generate the greatest number of impressions, this being Podemos, with an estimated total spend of €995,100 and approximately 129,992,000 impressions.

Facebook provides data disaggregated by disclaimer in its financial report; so, it is possible for an organization to publish sponsored content under different labels. The top 10 ads with a "paid for by" disclaimer by-line in Facebook's 2019 financial report included six Spanish political parties: Podemos in first and second place, Citizens in third place, the People's Party in fourth place, and the Spanish Socialist Workers' Party in ninth and tenth place. In contrast, United Left and Vox were much lower down in the ranking, outside the top 100. The unequal cost of each ad explained why some parties (i.e., Podemos) published less sponsored content for a higher cost. Without delving further into the relation between prize and advertisements' characteristics, we observed that ads with the highest number of impressions coincided mainly with the most expensive ones.

The ranking in Table 2 allows identifying the parties' position in the list of greatest Facebook investors in Spain, proving they had an essential role in the advertisement incomes on this social network. Comparing the data retrieved from Facebook's 2019 financial report (see Table 2) with those contained in the study database, it can be seen that the proportion of ads published during the two election campaigns was approximately half of the total published throughout 2019 by the parties, except for United Left, all of whose ads were posted during the two campaigns. As to ad spend, however, the estimates provided here do not tally with the figures appearing in Facebook's 2019 financial report. This may be due to inaccuracies in the report, as claimed by Facebook, and/or to the estimates based on the data provided by the Facebook Ad Library.

Table 2. Spanish political parties' ad spend on Facebook from January 2019 to January 2020. Source: Facebook Ad Library report (January 2019–January 2020).

Position *	Page ID	Page Name	Disclaimer	Total Spend (€)	No. of Ads in Library
1	269212336568846	Podemos	Unidas Podemos	635,976	1798
2	269212336568846	Podemos	Unidas Podemos	611,601	373
27	269212336568846	Podemos	Unidas Podemos CAMBIAR EUROPA	51,250	17
47	269212336568846	Podemos	Podemos	23,339	43
3	74078667754	Cs	Cs	493,142	17,622
163	74078667754	Cs	Ads without a disclaimer	2846	9
4	72249031214	PP	PP	413,526	11,172
9	189318235003	PSOE	PSOE	122,783	1548
10	189318235003	PSOE	Ads without a disclaimer	111,025	17
123	74858103866	IU	IU	4388	19
384	74858103866	IU	Ads without a disclaimer	632	3
187	467127060059387	VOX España	VOX	2470	87
700	467127060059387	VOX España	Ads without a disclaimer	286	14

Notes: Cs = Citizens, PP = Peoples Party, PSOE = Spanish Socialist Workers' Party, IU = United Left. * Position in the rank of the advertisers that sponsored content in Facebook during 2019.

3.2. Ad Scheduling

The data available on scheduling patterns (*n* = 7566) indicate that both the number of ads and ad spend increased during the final days of the election campaigns (see Supplementary Data in Table S1). In some cases, daily spend tripled average spend. During the April 2019 election campaign, Citizens spent €126,100 (on 1692 ads) three days before polling day, the party's last round of ads during the campaign. Until then, it had spent an average of €32,000 per day (on 440 ads). Podemos was the only party to schedule ads during the pre-campaign and campaign periods, publishing the greatest number of ads per day (115 ads; €213,200) five days before polling day, the highest figures before then being between 42 and 65 ads. The activity of its coalition partner, United Left, stands out precisely because it was the party with the lowest ad spend.

The People's Party reached its maximum daily spend (€200,700 on 400 ads) three days before polling day, while publishing the greatest number of ads (866) the day before. The conservative party's ad scheduling and spend did not follow a regular pattern. For its part, the Spanish Socialist Workers' Party published very few ads in comparison with the rest of the parties, publishing the greatest number (88) a week before polling day. Additionally, as to daily spend, this was lower, with a maximum spend of €10,300 five days before polling day.

As a rule, the parties that actively employed the Facebook Ads platform during the April 2019 election campaign spent much less during the November campaign, although ad spend was still considerable. As to Citizens, it published the largest number of ads (962), coinciding with its maximum daily spend (€54,700), eight days before polling day. For its part, Podemos' ad spend peaked (€89,900 on 171 ads) six days before polling day, compared with an average daily spend of €5000 (40 ads). Moreover, of the total number of ads published by this party during the November election campaign (545), 125 (€49,100) were scheduled to run outside the official campaign period. Its coalition partner, United Left, stood out for publishing the lowest number of ads (5) and for spending the least (€250).

The People's Party only published five VIAs during the November campaign. The party spent €14,250 (285 ads) on one of these, which was scheduled to run eight days before polling day, whereas the most expensive cost €30,300 (604 ads) and was scheduled to run nine days before polling day—namely, the first day of the election campaign. It hardly published any new ads during the rest of the campaign. On the first day of the campaign, the Spanish Socialist Workers' Party spent €10,900 (178 ads), after which it maintained an average daily spend of €1200 euros (20 ads). The party also published seven ads (€350) on the day before the official campaign commenced.

Moving on to Vox, the party spent nothing on Facebook advertising during the April campaign, but did indeed in the November campaign, albeit with a modest budget of €2800. It warrants noting that 11 out of 44 ads (€550) were published before the start of the official campaign. The remaining 33 ads (€2250) were posted together, three days before polling day.

Ad scheduling varied slightly from campaign to campaign. Whereas in the April campaign, most of the ads ran on average for between two and four days, in the November campaign, most of them ran for between two and seven days. The number of active ads also increased in the final days, but, surprisingly, 30 ads were scheduled before the start of the two-election campaign, thus contravening Spanish electoral law. Likewise, as shown in Figure 1, the April campaign was longer and, consequently, with a greater number of active ads per day.
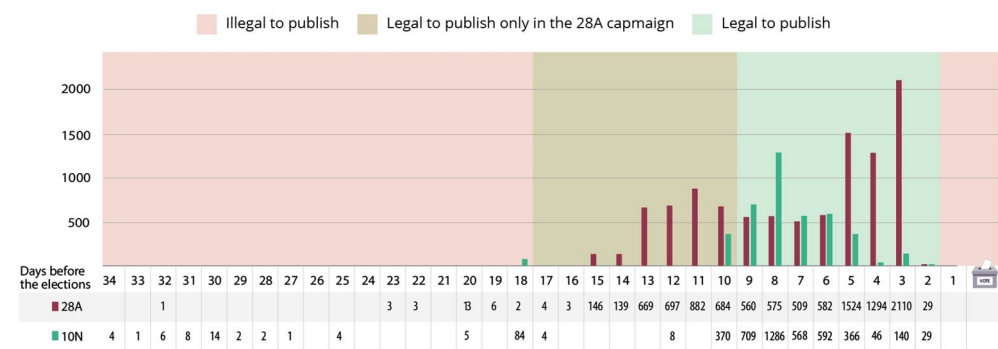

Figure 1. Ads published during the studied periods. Source: Own elaboration.

Figure 1 shows those ads contravening the law because they were published before the election campaigns had officially commenced. Specifically, these amounted to 545 ads (32 before the April election campaign and 513 before the November election campaign, accounting for 3.7% of the total corpus) at a total cost of €197,650 (€123,950 for the April election campaign and €73,700 for the November election campaign).

3.3. Content Analysis

Table 3 shows the estimated cost of the Facebook ads published by the six Spanish parties during both 2019 election campaigns, distributed by topic. As can be clearly observed, party promotion was the dominant topic. As it accounted for more than a quarter of the estimated ad budget (€615,750), it was also by far the topic on which the six Spanish parties made the greatest expenditure in both campaigns. The other topics on which they spent most in Facebook ads during both campaigns were employment (€391,250), national unity (€266,550) and economic policy (€248,100). Although the accent was placed on party promotion in the May campaign (see Table 4), in the November campaign there was a shift towards more specific topics, including employment, economic policy, and feminism.

Table 3. Estimated cost by topic of the Facebook ads published by the six Spanish parties in both 2019 election campaigns (*n* = 14,695). Source: Own elaboration.

Topic	Estimated Cost (€)
Party promotion	615,750
Employment	391,250
National unity	266,550
Economic policy	248,100
Feminism	140,250
Social policy	125,050
Pacts, coalitions, and surveys	94,850
Education and science	81,950
Democratic quality	69,050
Environmental issues	63,100
Depopulation of rural areas	18,450
Others	18,250
International policy	7400
Immigration	3400
Infrastructure	2050
Total	**2,145,450**

Table 4. Estimated cost by topic of the Facebook ads published by the six Spanish parties in both 2019 election campaigns (*n* = 14,695). Source: Own elaboration.

Topic	Cs	United Left	People's Party	Podemos	Spanish Socialist Workers' Party	Total
Party promotion	127,250	2250	223,950	170,650	26,300	550,400
Employment	7800	300	106,100	194,500	4050	312,750
National unity	109,850		40,400	78,400		228,650
Economic policy	29,700	1350	7750	129,150	2300	170,250
Social policy	43,800		14,050	49,800	1850	109,500
Pacts, coalitions, and surveys	42,650	300	14,250	36,000		93,200
Feminism	23,900		7050	33,450	4400	68,800
Democratic quality	13,400			47,550		60,950
Environmental issues	10,050		2300	46,550	1450	60,350
Education and science	7950	300	16,800	27,600	5850	58,500
Depopulation of rural areas	8550		9650			18,200
Others	15,850		200		1900	17,950
International policy	6450		300		550	7300
Immigration					3150	3150
Infrastructure	1100		50			1150
Total	**448,300**	**4500**	**442,850**	**813,650**	**51,800**	**1,761,100**

The results by campaign and by party reveal different patterns (see Tables 4 and 5). There were significant lacunas in the topics covered by the six parties. Democratic quality was absent in the ads published by the People's Party in both campaigns and by the Spanish Socialist Workers' Party in the first one. Immigration was only addressed by the Spanish Socialist Workers' Party in the first campaign and only by Vox in the second one. Infrastructure was covered by Citizens and, to a much lesser extent, by the People's Party in the first campaign, and only by the Spanish Socialist Workers' Party in the second one. The depopulation of rural areas was monopolized by Citizens and the People's Party in the first campaign and by the Spanish Socialist Workers' Party in the second one.

Table 5. Ad spend by topic and party in the November election campaign (*n* = 4260). Source: Own elaboration.

Topic	Cs	United Left	People's Party	Podemos	Spanish Socialist Workers' Party	Vox	Total
Employment	72,900		2500	1300	1800		78,500
Economic policy	12,650		6850	56,850	750	750	77,850
Feminism				69,550	1900		71,450
Party promotion	3300	200	29,500	25,000	6450	900	65,350
National unity	9050		2500	25,400	400	550	37,900
Education and science	20,850		2450		150		23,450
Social policy	9550		2550	750	2700		15,550
Democratic quality	7500			350	100	150	8100
Environmental issues				1600	1050	100	2750
Pacts, coalitions, and surveys		50	150	650	800		1650
Infrastructure					900		900
Others					200	100	300
Immigration						250	250
Depopulation of rural areas					250		250
International policy					100		100
Total	135,800	250	46,500	181,450	17,550	2800	384,350

As to the estimated ad spend of the six parties (see Tables 4 and 5), Citizens focused on party promotion (28% of its estimated budget) and national unity (24%) in the first campaign, and on employment (54%) and education and science (15%) in the second one. The People's Party, for its part, placed the accent on party promotion (51%) and employment (24%) in the first campaign, whereas in the second it prioritized party promotion (63%) and economic policy (15%).

Podemos, the party with the highest estimated budget, spent more on ads addressing employment (24%) and party promotion (21%) during the first campaign, and feminism (38%) and economic policy (31%) during the second one. Whereas the Spanish Socialist Workers' Party focused on party promotion (51%) and education and science (11%) in the first campaign, and on party promotion (37%) and social policy (15%) in the second one. Lastly, Vox only invested in Facebook Ads in the second campaign, its main focus being party promotion (32%) and social policy (27%).

4. Discussion

Concerning Research Question 1, the results show that the ad spend of the six political parties during the two 2019 general election campaigns was uneven—from approximately €3000 to €800,000. In this respect, Podemos and the People's Party were the two parties

that spent most on Facebook ads, as well as being two of the top advertisers on this social networking site during 2019 as a whole. In sum, Spain's political parties leveraged the communication opportunities that Facebook offered them during the two 2019 election campaigns, to the point of spending half of their Facebook budgets in these two periods.

So, it can be claimed that the six parties were fully aware of the commercial logic of this social networking site when including it in their political strategies. Even Podemos resorted to sponsored content for disseminating its messages, notwithstanding the fact that one of its founding principles was to strive for a more democratic use of the Internet (Gerbaudo 2019). Besides, the study results endorse Feenberg and Jin's (2015) reflections on Facebook's complex business model. The fact that political parties feature among this social networking site's best clients in election years is an important aspect for understanding its political resonance in contemporary politics.

As to Research Question 2, dealing with ad scheduling, most of the ads published by the six political parties appeared during the final days of both election campaigns and usually ran for two days. From these findings it can be deduced that the parties made a concerted effort to renew their online content and believed that the last days of the two election campaigns were critical for swaying undecided voters. Political ads are especially crucial when voting intentions are unclear—this might explain why ad spend during the April general election campaign was considerably higher than that during the shorter campaign in November. Additionally, none of the ads ran for the entire election campaigns, which suggests that the parties' strategy was perfectly adapted to digital content consumption on Facebook.

These findings have served to corroborate Ridout et al.'s (2021) words of warning about content sponsored by political parties before election campaigns, as well as confirming the contradiction between this global platform and local political processes (Sinclair 2016). Electoral law in Spain involves a number of restrictions. First and foremost, 545 ads were published before the two 2019 general election campaigns, despite the fact that it is illegal to publish sponsored content at times other than during the official campaign per se[2]. To this should be added that there is no law in Spain capping spend on publicly accessible social networking sites[3], in contrast to other media for which there are indeed spending limits. Lastly, there is an urgent need to regulate the partisan use of the Internet in Spain. Otherwise, political parties will continue to have a powerful digital tool at their disposal which helps them to circumvent the legislation in force.

Moving on to Research Question 3, inquiring into the issues broached by the six political parties in their Facebook ads, the results reveal the difference in Facebook usage from one country to another. While Ridout et al. (2021) have focused on message goals, this variable is pointless in Spain, where political parties avoid using certain techniques (e.g., signing petitions, requesting donations, administering surveys, etc.) for engaging the electorate. Quite to the contrary, since they have maintained vertical communication practices, the information and communication technology revolution has not been accompanied by transformative political strategies. Neither Podemos nor Cs, the parties that brought an end to the country's two-party system (Boix Palop and García 2014), innovated in this regard. Future research may analyze the equivalence of ads and campaign themes on political leaders' Facebook profiles.

The dominant topic during the two campaigns was party promotion. Specifically, this issue was more prevalent in the first campaign, maybe because it was planned in a more conventional way. The fact that the general elections had to be repeated in November after the failure to form a government might explain why the sponsored content published by the parties on Facebook was much more focused on economic and social issues than on party promotion.

Leaving aside party promotion, which is a common aspect of any electoral advertising strategy, the majority of the topics addressed in the Facebook ads were very closely related to Spain's political context, marked by economic instability, the pro-independence challenge in Catalonia, and the rise of the feminist movement (Orriols and Cordero 2016;

Simón 2020). The country's political parties broached these issues, while connecting them to their agendas. Employment was a major topic in both campaigns, in terms of Facebook ad spend. A number of surprising strategies were also pinpointed. For instance, Podemos was the party that paid most attention to this issue in the first campaign (€194,500 out of €813,650), while in the following one this topic hardly got a look in (€1300 out of €181,450). A similar pattern can be identified in the People's Party's Facebook ad strategy in this respect (€106,100 out of €442,850 in April, and €2500 out of €46,500 in November). Citizens spent much less on ads addressing this topic (€7800 out of €448,300 in April, and €72,900 out of €135,800 in November). And, lastly, employment was of capital importance for the Spanish Socialist Workers' Party (€4050 out of €51,800 in April, and €1800 out of €17,550 in November). In the first three cases, the parties shifted their attention abruptly, most probably due to their perception of the burning issues debated between both general elections. In order to qualify these findings, however, closer attention should be paid to the way in which this topic was framed and presented by each party.

In light of the importance given to national unity, a topic ranking in third place in the April election campaign and in fifth in the following one in November in terms of ad spend, it can be concluded that the issue of Catalan independence formed part of the parties' Facebook ad strategies. In the first campaign, Citizens was the party that spent most on ads addressing this topic (€109,850 out of €448,300), while in the second campaign Podemos led the field (€25,400 out of €813,650). Considering that national unity has traditionally been a central issue for Cs, it was reasonable to expect that it would have been one of the mainstays of its advertising strategy. Be that as it may, Citizens spent much less on ads revolving around this issue (€9050 out of €135,800). Podemos' stance on national unity in the November campaign might have been related to the situation in Catalonia, but, then again, it might have been influenced by the rise of Vox, a party for which it is of utmost importance.

The topic of feminism was addressed in the April campaign by all the parties, except for United Left, with the two newcomers Podemos (€33,450 out of €813,650) and Citizens (€23,900 out of €448,300) spending most on ads in this respect. Nevertheless, in the following campaign this topic was practically monopolized by Podemos (€69,550 out of €181,450).

In the main, the parties reflected their main concerns, besides promoting themselves, in their online advertising strategies on Facebook. As the putative heir to the 15-M movement, Podemos paid more attention to feminism and democratic quality (Domínguez and Giménez 2014). Citizens highlighted topics more related to Spain and democratic quality, as a way of distancing itself from its mainstream adversaries. The People's Party focused more on economic policy and the Spanish Socialist Workers' Party on several issues relating to social policies. Lastly, as already noted, Vox made little use of this advertising channel.

The academic literature on political communication has been paying increasingly more attention to organic content on Facebook, at the expense of the sponsored kind. This study has underscored the need for further inquiry into Facebook Ad Library content for three main reasons. Firstly, political parties are important ad-based content providers, an aspect that should be borne in mind when studying the political facet of social media and the relationship between political organizations and tech corporations (Haenschen and Wolf 2019; Sinclair 2016).

Secondly, Facebook is a digital platform whose functionalities do not necessarily adapt to a particular context. As a result, it did not prevent Spain's political parties from publishing content classified as illegal in its electoral law. The possibility of circumventing domestic legislation may help to reinforce the Internet as a political communication and campaign arena. This issue is of crucial importance for meeting recent challenges for democracy, such as the use of the Internet for spreading disinformation (Mustafaraj and Metaxas 2017).

Finally, Facebook allows for making comparisons between different political scenarios. During the two 2019 general election campaigns in Spain, recent developments influenced

the online advertising strategies of the six parties analyzed here, which gives rise to two considerations. Political strategy ultimately depends on the democratic traditions of the country in question, and the Facebook Ad Library has opened up a new avenue for comparative research on different elections and countries. However, to this should be added that political parties wield greater power on social media when they are able to include their messages in users' newsfeeds. If Facebook were to transform the digital social space into a commodified space (Corbett 2014), then those actors with more economic resources would be able to maintain an advantageous position and, consequently, to gain greater visibility. Facebook Ad Library is thus a useful tool for studying political strategies and connecting the behavior of parties to broader reflections on the state of democracy in contemporary times.

This study has two main limitations. On the one hand, the analysis of electoral advertising was limited to the Facebook ads published by the national parties with the greatest election expectations, whereby the ads published by their regional branches or by other political parties were not considered. In view of the fact that those branches have a lot to say in national politics, the conclusions arrived at here cannot be extrapolated to the Spanish political landscape as a whole. Likewise, ad spend was solely based on information provided by Facebook, so any additional costs involved in producing audio-visual content or implementing online campaign strategies were not taken into account.

On the other, it is important to stress the platform's structural constraints, which have been previously highlighted by Edelson et al. (2020) and Silva et al. (2020). Regarding the monetary and audience targeting variables, the data provided by the Facebook Ad Library are simplified and not very accurate, as they are based on numerical ranges. Furthermore, nor does the Facebook annual report provide detailed data on the ad spend of political parties because it aggregates them.

The release of the Facebook Ad Library has opened up promising avenues for research and for auditing the ad spend and strategies of political parties. One way of gaining deeper insights into the topics addressed in digital advertising would be to supplement content analyses with adequate qualitative analyses. This approach could be very helpful for identifying the different ways in which each party frames the same topic. Another future line of research could be to correlate the microtargeting information provided by the Facebook Ad Library with the other metadata, such as ad spend and impressions or, even more importantly, with ad content and images.

5. Conclusions

Social networking sites, such as Facebook, form a digital space for sharing user-generated content and interacting with other users. It can be claimed that this global platform is permeated by a commercial logic, for its business model consists precisely in "selling" this social space to advertisers. The massive amount of data collected by Facebook enable it to offer organizations effective tools for reaching target audiences in a very selective manner. Due to its huge user base, advertising generates significant revenues for the company. In this context, election campaigns have become a relevant source of revenue for Facebook (Bakir and McStay 2018; Haenschen and Wolf 2019; Kreiss and McGregor 2018). The fact that political parties advertise on this social networking site, which holds the promise of becoming a lively digital public space (Dahlgren 2005), means that, driven by the profits that it can reap from this activity, it now runs the risk of being inundated by carefully crafted political messages aimed at specific user profiles. This should prompt the citizenry and researchers to scrutinize this communication channel in an attempt to disentangle the political messages embedded in its newsfeeds.

Leveraging the Facebook Ad Library, launched in May 2018, we have inquired into the global trend of political advertising on Facebook. We have studied the use of this powerful marketing tool by the main Spanish political parties during the two campaigns running up to the general elections held in May and November 2019, which has allowed us to detect several issues worth considering in other campaigns. First and foremost, there is the

existing gap between the legislation on political advertising on mainstream media and the absence of supervision on social networking sites, a concern already raised by Ridout et al. (2021). Thanks to the Facebook Ad Library, it is now possible to detect infractions, such as the publication of political ads before campaigns commence, and to scrutinize the ad spend and sponsored content of political parties on Facebook during electoral campaigns. This sort of scrutiny is of value to both political communication researchers and society at large. As we have shown here, mining this rich information source has brought to light the different strategies implemented by the six Spanish parties in the two election campaigns. Our analysis has not been limited to the sponsored content per se, but has also focused on ad spend, which has allowed us to single out the most important topics. In turn, this has raised several questions that merit further inquiry. At least in Spain there is no law capping spend on social networking sites by political parties. Given that there are restrictions for other media, there should be a public debate on this issue, even more so since political parties figure among Facebook's top advertisers.

Facebook has also become an essential political communication channel. It is a social space that not only allows politicians, like any other user, to post their thoughts and updates with the aim of interacting with their follower base (Ceccobelli 2018), but also to disseminate their messages to selected profiles via sponsored content, like any other advertiser. The electorate should become more familiar with the power of the Facebook Ad platform. Democracy demands transparency from this advertising channel, and the launching of the Facebook Ad Library has been a welcome first step in the right direction. However, more steps should be taken. As we have proposed here, the possibility of auditing ad impact, spend and target audiences are promising possibilities for consolidating a healthier digital social space.

Notes

[1] Specifically, the affairs that led to the no-confidence vote were the proved facts of a parallel accounting system of undeclared donations coordinated by Luis Bárcenas, former Peoples' Party's treasurer. In this turn of events, it also played a major role the ongoing investigation of the Kitchen affair, an alleged operation of the Ministry of the Interior to steal sensitive information from the same ex-treasurer.

[2] The maximum duration of an election campaign is 15 days and election silence lasts 24 h before polling day. Both aspects are regulated by Organic Law 5/1985, of 19 June 1985, on the general electoral system.

3   Neither Law 19/2013, of 9 December, on transparency, access to public information and good governance, nor Organic Law 3/2015, of 30 March, on the control of the economic and financial activity of political parties.

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Article

Political Leaders in the APP Ecosystem

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Abstract: This article analyzes the process of symbolic and critical-discursive construction of applications developed for mobile devices for some of the world's most important heads of state through their manifestation in the ecosystem of mobile applications for iOS and Android. The sample includes 233 applications of 45 politicians from 37 countries. A content analysis-based method was applied to the discourse of these apps and users' comments. The results reveal the dominant discourses in this scenario and identify the characteristics that influence their popularity, the influence of viral content and their reception in the connection between the mobile ecosystem and the political sphere. The discourse on the apps reveals a commercial interest and the existence of a diffuse diffusion of political commitment in terms of entertainment, parody and virality.

Keywords: political communication; politicking; infotainment; mobile devices; digital communication

1. Introduction

The emergence of interactive and networked technologies is democratizing the construction and perception of social knowledge, the power structures in daily life, and civic and political engagement (Glas et al. 2019). In this way, seemingly innocuous content such as games about personalities from the political sphere for mobile devices can lead citizens to cross the fine line that today separates full political personalization from indiscriminate government spectacle that is not limited to strategic vote-catching (Berrocal 2003; Balmas and Sheafer 2013; Segado-Boj et al. 2015; López-Meri et al. 2020; Zamora Medina et al. 2021).

This scenario raises the question of the utility of apps to enhance electoral engagement with those who hold or aspire to positions of power. On the one hand, it is assumed that while political information is ubiquitous on the internet, people under the age of 25 are not interested in it because of the traditional framework on which it is built. In this context, it seems possible that applications that focus on entertainment may solve part of the above problem. However, researcher Tamara Small points out the risk of assuming that young people will be attracted to content simply because it is published in a familiar and easily accessible interface (Scherer 2016).

With this in mind, this study aims to explore the characteristics of mobile device app use in political discourse, both in terms of the features of leaders who manifest most and the ways in which app users receive this content. To achieve this, we take the "ludification of culture" (Raessens 2014) as a starting point for the different ways to achieve the so-called "pop politics" (Mazzoleni and Sfardini 2009) and its transmedial narration (Durántez-Stolle and Martínez-Sanz 2019). These factors contribute to the transfer of interest from the spectacularization of political activities to the development of new mobile applications

(Shankland 2008; Tau 2012; Vázquez-Sande 2016; Gómez-García et al. 2019; Navarro-Sierra and Quevedo-Redondo 2020; Zamora-Medina et al. 2020; Cervi and Marín-Lladó 2021).

The objective of this study is to analyze the construction of some of the main global leaders through their manifestation in the ecosystem of mobile entertainment applications for iOS and Android. In other words, the aim is to explore the sphere of contemporary "gamecracy" or "gamocracy" (Gekker 2012) and to explore a new way of engaging with government, as well as to reflect on the "casual politicking" (Gekker 2019) that is currently driving a different kind of engagement.

1.1. Politainment and Spectacularization

From an eminently theoretical point of view, for authors such as Raymond Williams (1993), there are four common uses of the term "popular". Therefore, this term is understood not only as that which attracts the interest of a large number of people but also as anything that we consider rather frivolous or light, that deliberately tries to captivate the masses and the forms of culture created by individuals—such as "emirecs", understood as people who send out and receive digital content (Aparici and García-Marín 2018) or groups for the enjoyment of the citizenry. These meanings are embedded into some of the main approaches to popular culture (Grindstaff 2008; Martín-Quevedo et al. 2019), which not only encompass several objects of study but also tend to consider "pop" as something imposed from outside.

Since the 1980s, there has been an inclination to believe that there are external actors who promote the penetration of an "inauthentic" commercial culture "for the people" and "totally controlled" (Bennett 1986) to exploit the benefits of "soft power" (Nye 1990) and to direct the interest of the population towards its real goal. This goal may be to win votes, satirize a government leader through memes or television parodies, or simply to fire up the "political fandom" (Highfield et al. 2013; Dean 2017; Penney 2017; Quevedo-Redondo and Portalés-Oliva 2017). This phenomenon is understood as a mixture of curiosity about institutions and a predisposition to practice the cult of celebrity (Penney 2017).

With the wide range of apps that, according to Vázquez-Sande, are useful for parties and candidates when they rely on "gamification" (Vázquez-Sande 2016), it is possible to stimulate segments of "soft voters" (Kenski et al. 2010), inform users about outstanding events or even increase the popularity of certain rulers. Regardless of the purpose for which creative audiences develop applications apart from professional political strategies, when talking about mobile devices as a means of mass communication (Ahonen 2008), they refer to tools that enable the successful attraction of the desired audience through direct, viral, relational, interactive, promotional and location-based content as a "key element of one-to-one marketing" (Gómez-Tinoco 2010, p. 246).

As argued by politainment researchers such as Street (1997), Wheeler (2013) or Berrocal (2017), spectacularization is one way to bring the message closer to apathetic citizens who are not interested in the future of government. So, personalization promoted by the app ecosystem is expected to add a dimension over time that is more engaging, entertaining and directly relates to the mainstream culture disseminated by mass media (Martel 2011). In this way, social science researchers find an emerging line in gamification that looks towards a utilitarian line: serious games. In this sense, the combination of casual games, aimed at a wide audience (Juul 2010; Gekker 2019), and newsgames (Gómez-García et al. 2021) stand out to promote the discussion of controversial issues. All this, without forgetting that the design of these products not only meets the entertainment needs of the audience, but also provides them with a completely new experience that encompasses everything from decision-making to cognitive processes. (Wan and Shao 2019).

Newsgames present information in an "interesting and authentic" way, which is why Wan and Shao (2019) argue that through them, audiences finally pay more attention to government affairs and become closer to both those in power and the mainstream media. With this in mind, and without going into the evaluation of video games in which the player is simply trying to make fun of a political party or perform "cathartic" acts (López-DeAnda

and Cedeño-Navarro 2014), two types of studies support the framework of reference of this research:

1. Descriptive contributions based on app analysis and the gamification of politics (Gutiérrez-Rubí 2014; Vázquez-Sande 2016; Gómez-García et al. 2019; Gil-Torres et al. 2020).
2. Work that aims to introduce concepts such as "gamocracy" or "politicking" into academia, which have so far found little acceptance (Gekker 2012, 2019; Navarro-Sierra and Quevedo-Redondo 2020; González-González and Navarro-Adelantado 2021). These concepts are inspired by the intention to promote political engagement through playful agency.

This article belongs to the first category, after completing the revision that made it possible to narrow down the antecedents of this research and connect it to the phenomenon of political personalization.

1.2. From Apps to Casual Politicking

The increasing visibility of political app use is something that authors such as Shankland (2008) and Tau (2012) have noted in the presidential campaigns that Barack Obama led in 2008 and 2012. These analyses are complemented by others who focus interpretive efforts on activism and turnout and political satire (Kleina 2020). As Vázquez-Sande observes in his study of the use of these applications in Spain, 20% of them have a "ludic-parodic" goal (2016), compared to those created for informative purposes, those intended to allow direct communication between candidates and voters, those designed to provide "civic value" (Sandoval-Almazán et al. 2012), and those simply intended to share news about a particular political party.

Studies such as those by Rojas and Puig-i-Abril (2009), Campbell and Kwak (2011), Kim et al. (2016) and Yamamoto et al. (2018) provide evidence of the political utility of news consumption via mobile devices and even point to the emergence of a new "media logic" (Klinger and Svensson 2015). However, this plethora of works anchored in modernity does not address in depth all the possibilities that technopolitics offers to capture the interest of Millennials (López Vidales and Rubio 2021), a generation that wants a more "promiscuous, demanding and volatile" experience with formal politics (Gutiérrez-Rubí 2015).

At the beginning of the twenty-first century, research on mobile applications can still be considered an emerging field of research (Light et al. 2016), and although gamification permeates all fields, there is still much to be conducted at the academic level in the area that concerns us.

As Gutiérrez-Rubí (2014) explains, "politics is not a game, but playing is a natural way of learning and knowing". Games and creativity are motivators for voting; they call on voters to become more informed and mobilize young and urban citizens. Both this segment of voters and the over-25 s are aware that applications have undeniable benefits in promoting a new "politics for the pocket [. . .] described as ubiquitous, nonstop, personalized, multichannel, traveling and fast" (Vázquez-Sande 2016).

Researcher Alex Gekker (2019) is the first to compare games that enable "casual" games—those without long sessions or the requirement of unconditional commitment—to game-based apps inspired by leaders and political parties from around the world. Gekker calls this new dimension "casual politicking", exploring how citizens are drawn to election messaging when it is presented informally, with features of gamification and without excessive involvement from anyone who downloads the app on their phone (Table 1).

Table 1. Proposal for a comparison between the principles of participation in "casual games" and "casual politicking".

Casual Gaming	Casual Politicking
Key priority for developers/Juiciness: visual and auditory gratification is prioritized based on the simplification of tasks and a clear definition of the objectives of the game.	Key priority for developers/Intuitive interfaces: design patterns help increase the usability of the product with solutions known to users who find the app reliable and attractive for immediate interaction.
Prevalence of simplicity/Low interruptibility: simple gameplay is offered in short bursts to avoid saving games.	No prevalence of simplicity/Issue-centered: action focused on the theme of the game instead of ideology, thus achieving an engagement supported by entertainment on the political aspect.
Without penalty/Indulgence: apps designed for gamers to avoid going too far back in the gaming experience if they make mistakes.	Penalty/Low penalty: fast recovery in case of failure in the game to increase the number of possible players.
Social impetus: tendency to foster social connections within the game, either by making the game multiplayer, creating leader boards or offering bonuses/points for inviting friends.	Social impetus: the bonds that are created are an important part of the participatory experience, which underlines fun over ideology.

Source: table based on Gekker (2019, p. 403) and Navarro-Sierra and Quevedo-Redondo (2020).

According to Antoni Gutiérrez-Rubí (2014), rulers and their teams have realized that casual games constitute a new space for action and communication due to their appeal, potential intergenerational use and acceptance among youth. Regardless of this observation, any study on politicking can help verify that the creators of a successful app do not need to maintain direct ties to political parties or governments. Ideological interests are put aside, and the focus is on entertainment through the application of seven keys (Figure 1).

Figure 1. Keys to the success of a casual politicking app. Source: Navarro-Sierra and Quevedo-Redondo (2020) on contributions from Gutiérrez-Rubí (2014, p. 40).

Given the outlined ecosystem of apps, this proposal contributes to make visible an emerging line of research on the so-called "gamocracy" (Gekker 2012). In other words, it is a form of political engagement characterized by playful agency via interfaces reminiscent of games in the modern era, and it combines several of the elaborations described with those of political personalization, which distinguishes the desacralization of power from trivialization at any cost.

The candidate for a position that aspires to become a "message through his/her image" (Rebolledo 2017) knows that (s)he must strive to do so with the awareness that opportunities can become threats, and that when this phenomenon and that of popularization coincide on the fringes of populism, the loss of the trust or apparent credibility that any candidate exudes is a likely cost. In the field of casual politicking and given that content creators are usually independent companies or individuals motivated by economics rather than

ideology (Navarro-Sierra and Quevedo-Redondo 2020), the purpose of entertainment without the involvement or consent of the powerful cancels out much of the risk if the audience does not like the entertainment. As with cartoons, only with an idea of the political as object and purpose, less linked to a "referential conflict" or a "triggering event" (López-DeAnda and Cedeño-Navarro 2014), and with some functions of reinforcement of imaginaries more linked to characters than to contexts.

2. Objectives

The aim of the present investigation can be determined based on these coordinates. Specifically, it aims to explore how mobile applications have built a discourse on the main political leaders of the European Union, United Kingdom and Latin America (37 countries) in the last decade. The inspiration comes from previous research about Donald Trump in the app ecosystem (Gómez-García et al. 2019), and, therefore, the former American president is excluded from the sample. In this way, the present study aims to find out the characteristics that distinguish this content and how the apps are received through an investigation that aims to answer two specific questions:

Research Question 1. What discourse do the apps suggest in relation to the political leaders of the countries that make up the sample between 2013 and 2020?
Research Question 2. How are these apps received and what is the likely effectiveness (or level of agreement) of their users with the main discourse?

Using the analytical method described in the following section, the goal is to answer both questions and identify the additional dimensions of personalization of political leadership in the mobile app ecosystem.

3. Materials and Methods

The analysis sample included all apps linked to executive leaders (n = 45) of the countries that made up the sample (n = 41) using Google Play and Apple Store browsers. The search was extended to the website Sensor Tower, an online tool for monitoring apps, and different keywords were used combining names, first names or nicknames of the political leaders and countries that formed the sample. Only the apps that were directly related to the political figure of one of these politicians were considered in the selection. The final sample (n = 233) included apps with a release date between 10 May 2011 and 4 April 2020, whose language was either known to the researchers or easily understood using automatic translation services. All authors participated using a quantitative content analysis coding sheet (Table 2) developed and refined in previous research (Riffe et al. 2014; Krippendorff 2018; Gómez-García et al. 2019; Navarro-Sierra and Quevedo-Redondo 2020).

All selected apps were coded using three sets of variables which aimed to answer the research questions. The first set of formal variables facilitated their identification or collected the data offered by the platforms consulted (application name, operating system, launch date, publisher, number of downloads, user ratings, among others).

The second set of variables surrounds RQ1 to identify the distinctive characteristics of application developers (Wang et al. 2017) and the discourse models used in other studies (Haigh and Heresco 2010; Gómez-García et al. 2019). The latter are categorized as "escapist" (discourses that have no relation to reality and propose an unreal or purely viral construction); "circumstantial" (the popularity of the character is used but without proposing a complementary construction); "informative" (information about the politician's activities is provided, for example, during the election campaign); "intentional" (when an evaluation of the leader is intended); "satirical" (emotional elements are highlighted with ironic intent). The last variable in this group includes ideological attitude, which determines whether the evaluation of the political figure or his actions are positive, negative or neutral.

Table 2. Code sheet for app analysis.

Identification Data	
App's name	[Name]
Platform/OS	Android/iOS/both
Launch date	[Day/Month/Year]
Developer's country	[Name]
Downloads (estimated)	[Number]
Most popular country	[Name]
Price	Free/Ads/In-app purchases/xx €
Genre	Game/Social/Business/Entertainment/Communication
Discourse type	Escapist/Circumstantial/Informative/Intentional/Satirical
Description	App description from store page
Main character	[If any: Name]
Adversaries	[If any: Name]
Ideological positioning	Positive/Neutral/Negative
Development Characteristics	
Developer	[Name]
Total apps launched	[Number]
Profile	Professional/Commercial/Casual/Ideological
User's Feedback	
Number of votes	[Number]
Rating	[Votes in each position, scale 1 to 5]
Number reviews	[Number]
Reviews	[Text from store page]
Others	[Free text]

Source: own elaboration.

Finally, the third group of variables is used to answer RQ2. For this purpose, user ratings and reviews were collected and analyzed from quantitative (number of opinions) and qualitative points of view (positioning towards the app and type of comment, linked to content, functionality, commitment to entertainment, etc.).

4. Results

4.1. Political Popularity in Mobile Ecosystems

The localization and coding process of the sample provided a first set of results that allow the identification of the most popular politicians in the mobile application ecosystem. In this sense, the number of apps available was interpreted as a popularity vector that allowed distinguishing between the most popular leaders in the mobile content ecosystem and those who are not. Table 3 shows the politicians who had five or more apps at the time of location and the selection of the sample[1] (the shaded boxes reflect the years when they were not at the head of the executive branch of their country).

Table 3. Presence of the most popular politicians in the mobile ecosystem.

Country	Leader	2013	2014	2015	2016	2017	2018	2019	2020	Total
Brazil	J. Bolsonaro	0	0	1	8	27	66	5	0	107
Germany	A. Merkel	4	2	1	1	7	13	3	1	32
France	E. Macron	0	0	0	0	13	8	2	2	25
Venezuela	N. Maduro	1	1	4	1	2	3	3	2	17
The United Kingdom	T. May	0	0	0	0	2	5	0	0	7
	B. Johnson	0	0	1		0	0	2	5	8
Spain	P. Sánchez	0	2	0	2	0	1	3	0	8
Chile	S. Piñera	0	0	0	1	1	1	2	1	6
Czech R.	M. Zeman	1	2	0	1	0	1	0	0	5

Source: own elaboration.

The data reflects that the politicians with the greatest presence in the mobile app ecosystem responded to specific features that had an unequal impact on their popularity in this scenario: longevity in office, media profile, political actions, informational agenda and international importance of the country. Almost all analyzed apps were developed during the performance as head of the country's executive branch, but sometimes in conjunction with intense electoral activity, as with Jair Bolsonaro and the 2018 presidential elections in Brazil.

This combination allows the announcement of the recurrence of two political styles, with some nuances, in the app distribution platforms. On the one hand, we would speak of the popularity of "controversial" profiles and, on the other hand, of institutional profiles that are long-lived or associated with countries that have a significant impact on economic and international politics.

The data in Table 3 clearly identifies the most prominent figure: Brazilian President Jair Bolsonaro. His controversial media popularity and belligerent political activity place him in populist coordinates, to which the app ecosystem had responded in a similar way to the former USA President Donald Trump, both in terms of production discourse and characteristics (Gómez-García et al. 2019). Apps linked to Venezuelan President Nicolás Maduro and Czech President Miloš Zeman fall into the same logic, albeit to a lesser extent.

Political leaders who stand out in the institutional sphere or because of their countries geopolitical footprint are linked to German Chancellor Angela Merkel and French President Emmanuel Macron. Needless to say, the most popular European heads of state do not reach Bolsonaro's numbers but their presence is significant, as we will see, due to the volume of their app downloads.

The remaining heads of state listed in Table 3 (UK, Spain and Chile) are halfway between the previous two profiles. On the one hand, there are significant states on the international stage that have also recently been spurred by political interventions and a complex media agenda (Brexit in the UK; no-confidence vote and problems forming government in Spain; social unrest faced by Chile's president).

4.2. Political Personalization in the Mobile Ecosystem

The public personality traits of political leaders in the mobile ecosystem have been associated with the type of content developed for each of them. Thus, the distribution shown in Figure 2 provides significant correspondences between the political profiles and the content developed for each of them.
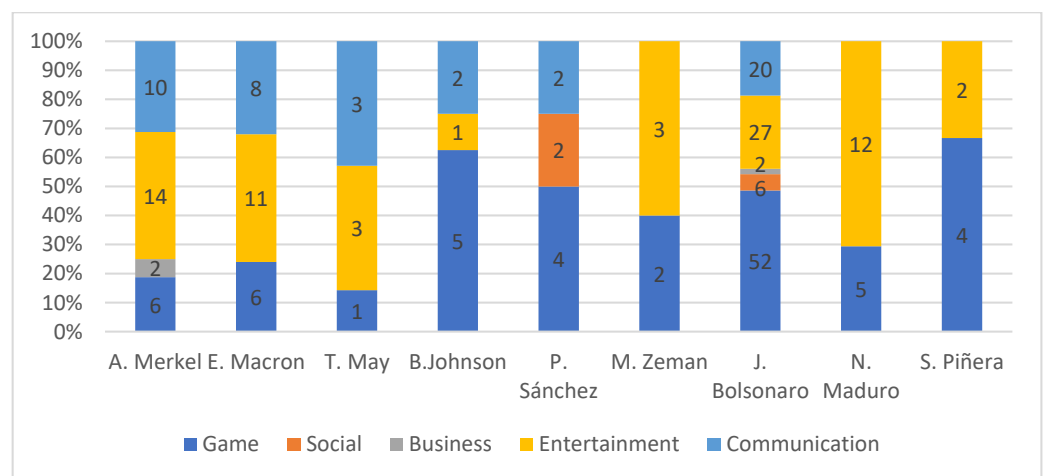

Figure 2. Classification by categories according to platforms. Source: own elaboration.

The political profiles of Angela Merkel and Emmanuel Macron respond from a quantitative perspective to a much more corporate and less controversial reality than those of their counterparts in other countries. To be precise, a certain balance is identified between the different types of apps and a proportion of games that ranges between 18 and 24%. This data—the percentage of games—are related to the fact that game-based content usually has high satirical content. However, the entertainment section implies a desire to integrate these political figures into discourses, since they consist mainly of stickers and soundboards that allow their interaction with messaging tools such as WhatsApp, Telegram or Facebook (among other social networks). In contrast, Boris Johnson and Jair Bolsonaro have a significant presence of content framed in the "games" category.

The type of content offered by these games often also depends on the nature of the type of political profile. In these cases, for example, the games associated with leaders of the institutional profile correspond to a simple design that uses popular game mechanics such as Flappy Birds, Whac-A-Mole or Tic-Tac-Toe, with slight aesthetic variations that hardly develop a government-like discourse (Scheme 1a,b). Conversely, games involving Jair Bolsonaro, Nicolas Maduro or Boris Johnson are more critically loaded in terms of the controversies with which they are associated. Recurring, therefore, are the bellicose connotations of the presidential election as used by Bolsonaro in 2019 (Scheme 1d), the debate around Brexit (Scheme 1c) or the international controversies of Nicolas Maduro.

(a)

(b)

(c)

(d)

Scheme 1. Manifestation of politicians in popular apps. Source: the respective applications. (**a**) *Merkel Tap* (Presovsky 2018). (**b**) *Macron vs. Le Pen Tic Tac* (haijoubdemo 2017). (**c**) *Brexit Run* (Karma Skid 2020). (**d**) *Bolsonaro vs. Petralhada* (Irmões Bródi 2018).

The practical absence of official apps to manage the public activities of the different governments is not an obstacle for some to present themselves as such without being. In some cases, this responsibility lies on the political parties to which the head of government belongs (e.g., in Spain, France or Germany). A trend only broken by the former Maltese president Joseph Muscat, who uses his own official apps (developed by his party) as a communication channel.

The previous data are ratified with the analysis of the narrative proposals of the applications. These discourses are dominated by a circumstantial tone with Angela Merkel (58.3%), Emmanuel Macron (45.8%) and Theresa May (57.1%), while in the case of Miloš Zeman it is divided between circumstantial and intentional (40%). Finally, the informative type predominates in those related to Pedro Sánchez (55.5%) and the satirical in those associated with Sebastián Piñera (66.6%), compared to the intentional (critical) and satirical nature that characterizes the content inspired by Boris Johnson (63.3%) or Jair Bolsonaro (51.4%). However, these data do not imply that these proposals are accepted by users. Therefore, the following section lists the most downloaded apps, which arouse greater interest among mobile device users.

The focus of these discourses on the reduced number of apps of a more editorial nature—such as the intentional ones—reflects a more neutral construction, by the developers, of all the characters. Thus, a strategy more related to the goal of making its creators visible within the platform, using viral techniques associated with political figures to achieve self-promotion. This is also evident when it is verified that the same company has developed apps of politicians from different countries. This perception is supported by the assessment they receive in the set of applications. In this context, the majority of European applications (around 90%) show a neutral cut in the personalization of politicians compared to the South American context (69%). The exceptions are registered in Spain and England, since in the apps dedicated to Boris Johnson and Pedro Sánchez, the negative or humorous construction reaches 55.5%. It can be concluded that the patterns analyzed in the discourse model not only indicate a different political culture between the countries of the European Union and Latin America, but also the implementation of a creative culture that forms the backbone of a different ideological discourse in these countries.

4.3. Downloads Rule! (Quantity and Type of Message)

The above data sheds light on which leaders received the most interest in the platforms from developers. The conclusions that can be drawn in this regard are heterogeneous. However, it can be stated that the reach of these contents is limited by their reception, since the mere presence of the apps on the Google Play and Apple Store platforms does not determine their informative effectiveness, their scope or level of use. Table 4, therefore, lists the most popular apps according to the number of downloads estimated by Google Play (a dataset not provided by the Apple Store).

This data reveals some matters of interest. The first one is that it is feasible to specify the extent of the popularity of each of the leaders of the sample beyond the intentions of the developers of these contents[2]. In this scenario, for instance, the popularity of Jair Bolsonaro is not only specified in the number of apps developed, but also in the popularity of those contents, since seven of his apps exceeded 100,000 downloads. Such results make it possible to establish that the acceptance of certain politicians corresponds to their "success" in the mobile ecosystem. This is a reflection that ought to be placed in the field of action and within the framework of political personalization since the controversy associated with specific events such as Brexit or the difficulties of government formation in Spain do not in themselves raise these levels of popularity in the downloads.

Table 4. Most popular apps on Google Play.

Most Popular App(s)	Download Range	Type of App	Leader
Stickers do Bolsonaro	500,000–1,000,000	Stickers	Jair Bolsonaro
A. Merkel Soundboard	100,000–500,000	Soundboard	Angela Merkel
Bolsonaro Voador	100,000–500,000	Game	
Bolsonaro-Áudios	100,000–500,000	Soundboard	
Bolsonaro vs. Petralhada	100,000–500,000	Game	
Bolsonaro Terror do PT	100,000–500,000	Game	
Brazilian Trump	100,000–500,000	Meme stickers	
Bolsonaro no WhatsApp	100,000–500,000	Stickers	
Maduro Mango Attack	100,000–500,000	Game	Nicolás Maduro
Miloš Zeman—HRA	50,000–100,000	Game	Miloš Zeman
Miloš Zeman—Quotes	50,000–100,000	Soundboard	Miloš Zeman
Piñera Stickers WhatsApp	10,000–50,000	Stickers	Sebastián Piñera
Macron Soundboard	5000–10,000	Soundboard	Emmanuel Macron
Pedro Sánchez Simulator	5000–10,000	Game	Pedro Sánchez
Boris Johnson Speaks!	1000–5000	Soundboard	Boris Johnson
Theresa May News	50–100	Informative	Theresa May

Source: Google Play.

Although most downloads come from the country of origin of each political leader, this is not the case for all apps (according to data provided by Sensor Tower). Thus, the United States is the country with the most downloads for several of Angela Merkel's apps. For example, *Maduro Mango Attack* is most popular with users in Colombia (which is not surprising given the number of Venezuelan immigrants in the country and the ironic tone of the game), and Theresa May News has the highest number of downloads in Kenya. While there are several fraudulent factors that can explain certain downloads (Dou et al. 2019), Kenyan users' interest in this political leader's news apps could be due to the trade relations between the UK and Kenya, as well as the British Prime Minister's visit to the African country in 2018 (EuroNews 2018). With this in mind and considering that not all downloads originate from the country they refer to, the actual impact of the apps can only be considered in general terms. Even if the apps of Zeman, whose country has a population of just over 10 million, have a higher ratio of downloads to population, it is uncertain whether this impact is a direct response to the president's popularity in his country.

Another crucial feature for the popularity of the apps is their free status, as they all fall into the freemium category, i.e., they are free for users and opt for monetization strategies based solely on their usage (mainly by displaying ads).

Table 3 also shows that the versions of popular games that employ politicians as characters and provide content for sharing on social networks (stickers or soundboards) are the models of apps that have the greatest acceptance among mobile device users, as noted in previous research (Gómez-García et al. 2019; Navarro-Sierra and Quevedo-Redondo 2020; Kleina 2020). This popularity is conditioned by the parodic and critical tone of the controversial leaders (Jair Bolsonaro or Nicolás Maduro), which in most cases elicits a critique of their most superficial and parodic features, without any deep criticism (for example, only 5.7% of the apps about Bolsonaro expressed outright negativity about him). Overall, the apps with a neutral evaluation of the leaders that make up Table 3 were mostly neutral (68.3%), compared to those advocating a negative view (28.2%) or, on the contrary, a positive view (3.4%).

The clear distribution shows the correlation between circumstantial and escapist discourses together with an ideological positioning that reveals an interest in using the figure of the politician to fulfil more commercial or self-promotional than ideological objectives. These coincidences reveal a simple logic in the creation of content aimed at virality (but not critique) and popular genres with slight aesthetic variations to achieve a maximum number of downloads in the shortest possible time.

Finally, the most characteristic feature of the analyzed applications is their contribution to an expressive line of political discourse that deals with the features of personalization of the most charismatic rulers, as shown in Scheme 2.

(**a**)   (**b**)   (**c**)

Scheme 2. Most downloaded apps of the sample. Source: the respective applications. (**a**) *Angela Merkel Soundboard* (Pentagames 2017). (**b**) *Macron Soundboard* (Wonderapply 2017). (**c**) *Stickers do Bolsonaro* (appssyncs 2018).

4.4. A Polarized Reception

The interpretation of the reception of the applications was made based on three variables of the analysis sheet: the number of votes (or ratings) received by each application, the rating or number of stars awarded (from 1 to 5) and their distribution and, finally, the analysis of the user reviews made on each application.

The joint analysis of the three variables shows that the most commented or those that received the highest score were related to games and/or entertainment and as well as those that were free for users.

The content of the applications, developed in the previous section, did not correspond in most cases to the intention that the coding sheet established to the developers. For example, 91% of the rating scores were either the minimum (1) or the maximum (5). This polarization suggests that the rating criterion depends more on the ideological or political positioning of the user than on the service or entertainment offered by the app. The comments each app receives have more to do with ideology than with the entertainment offered to the player, with promises such as the following: "Nothing is funnier than Angie's faces" (*Angela Merkel Sticker für WhatsApp*), "[. . .] it is a fun reminder of the sad reality" (*Miloš Zeman—HRA*) or "That man is such an ass that they could put much more with stupidities or homophobic or preconceived phrases that he loves to say!!!" (*Stickers do Bolsonaro*).

In this sense, and in relation to the fieldwork carried out, the reaction of users to the applications corresponds to a very high percentage of their previous ideological beliefs without being changed by the professional, communicative or recreational services that the app offers.

5. Discussion and Conclusions

The twenty-first-century voter assumes different profiles that are evident in the app ecosystem, from prosumer to emirec (Aparici and García-Marín 2018). In the context of this research, the new possibilities offered by digital media as communication spaces contribute, directly or indirectly, to playful forms of engagement with media politics (Ballesteros-Herencia 2020; Ballesteros-Herencia and Gómez-García 2020). This is another feature of "post-broadcast democracies" (Prior 2006), where citizens use the figures of the governmental sphere as "raw material" to fuel their creativity (Wilson 2011). This has been clear in the research that occupies these pages because, as outlined in the findings section, the popularity of leaders spurs the development of apps that are more focused on entertainment than on useful goals.

The good reception for mobile apps, which in some cases have been downloaded over 500,000 times, invites the academic community to reflect on the paucity of contributions on the relationship between gamification, political fandom and engagement. The reality challenges us to rethink this type of product as a tool without overlooking the fact that, as in the era of "pop politics" (Mazzoleni and Sfardini 2009) and in line with the review that enabled this research, the most requested content tends to have a significant amount of political personalization and parody.

The "political addicts" mentioned by Coleman (2003), whom Young (2010) refers to as "elite audiences", represent the type of audience that follows serious or hard news closely. It is a very sophisticated audience, but it cannot be representative of the general interest. In this sense, and at an international level, this article reveals that the number of apps with "informative discourse" is lower than those that follow circumstantial, satirical or purely intentional narrative proposals. This pattern highlights the existence of different political cultures between the countries of the European Union and those of Latin America, but also shows the implementation of a creative current that promotes a different ideological discourse depending on the state and the popularity of political leaders.

Finally, based on the coding and interpretation of 233 apps and against the backdrop of the outlined context, this paper presents conclusions that serve as answers to the main research questions. Thus, concerning the first question (RQ1), which sought an answer to the type of discourse proposed in apps in the context of the political leaders that formed the sample, it can be concluded that the presence of rulers in the mobile ecosystem and the number of apps that inspire them have different causes. The main reasons cited include political experience/longevity, geopolitical importance of the country, the respective leader rules and their media relevance. The explicit explanation refers to the fact that content creators are usually specialized companies or individuals rather than sporadic or moderate developers. As can be seen from the analysis conducted, economic motivations and self-promotion seem to drive the creative whirlwind, as the purpose to entertain and, consequently, to gain more downloads and advertisers prevails over contributions of an ideological nature. In other words, "issue-centricity" and "social impulse" are confirmed as characteristic features not only of casual politicking (Gekker 2019) but also of the business that drives this trend.

The rise of pop politics is one factor that explains why media figures such as Jair Bolsonaro, Nicolás Maduro or Boris Johnson, who fall into the category of "celebrity politicians" proposed by Street (2004), lead to a greater number of satirical intentionality games. In contrast, figures close to the so-called "political sophistication" (Luskin 1990) generate a type of discourse that is almost always informative or circumstantial. Escapist discourse associated with unreal or viral constructions manifests itself in popular proposals such as the games Tic-Tac-Toe with Macron's character or Whac-A-Mole with Merkel's face. This typology is not very representative, but it allows us to confirm the political keys proposed by Gutiérrez-Rubí (2014) and points to the simple game mechanics as a fundamental attraction of newsgames.

A final aspect related to this question lies in the projection of this type of content, which, according to the data in Table 3, seems to have ended its phase of over-expectation

for developers and is facing a downward curve in production. Future research could clarify whether this corresponds to a "valley of disenchantment" before consolidation, or whether other alternatives and habits have taken over the communicative space previously occupied by these apps.

The second research question (RQ2) of the study asked a more complex question than the previous one: the purpose was to measure the acceptance of the apps and the degree of adherence to their discourse. In this sense, and despite the limitations of the study, it was possible to carry out various verifications of the ideological positioning that emerges from the comments and evaluations of those who download the apps, since those who are neutrally evaluated by users represent a minority. In the Spanish case, for example, the tone towards Pedro Sánchez is decidedly negative. Such a result is recorded when the motivation of the app's creator is ideological (demanding freedom for "political prisoners" in Catalonia) and does not seek to inform or entertain, but rather to gain supporters for a cause by exploiting the amplification effect and the propensity for selective public exposure (Chaffee et al. 1977). A circumstance that occurs in the apps developed around the figure of the Brazilian president in a much more polarized logic: Jair Bolsonaro. Polarization thus has a place in a new space, showing that while application developers are not usually ideology-driven, the majority of consumers respond to this stimulus as they do in other media (Prada Espinel and Romero Rodríguez 2018; Masip et al. 2020; Romero-Rodríguez et al. 2021).

This work was not without limitations. First, the limitation related to specifying what counts as political participation in this process. We only looked at the notoriety of political leaders in the app ecosystem, but did not consider what part of the political realm we should place the development, downloading or interaction with an app in. Second, the overall aim of this research would benefit from an in-depth analysis of selected apps as a case study to offer their features, functions, design, origin, tone towards the leader, app store rating and some comments. Future research could consider the actual landscape to overcome these constraints and present a challenge for future research.

The entertainment options offered by mainstream politics preclude an "ideal democracy" scenario for "highly sophisticated" voters (Muñiz et al. 2018) but open new opportunities for average citizens with a different interest in what is happening in government. As with newsgames, mobile apps influence public opinion from the moment they help change the information and entertainment ecosystem. This leads to new kinds of engagement analysis, but also to satisfying questions such as the ones that guidethis research.

Notes

[1] The rest of the leaders had a marginal presence, such as the case of Mark Rutte (Netherlands), Charles Michel (Belgium) Mauricio Macri (Argentina) and Sergio Matarella (Italy) with two apps. Another ten leaders of an executive branch only have one (V. Dancila, Romania; S. Löfven, Sweden; S. Niinistö, Finland; A. Tsipras, Greece; M.D. Higgings, Ireland; J. Muscat, Republic of Malta; A. Duda, Poland; M.R. de Sousa, Portugal; S. Kurz, Austria; B. Pahor, Slovenia).

[2] The remaining leaders in the sample (those with fewer than five apps) did not have any outstanding dates. The most significant datum was the presence of the Greek president, Alexis Tsipras, and his only app *Τσίπρας Jumper* (Koplax Studio, 2015). This game consisted in the president collecting as many coins as possible to cope with the economic crisis. It was in the range of 100–500 downloads.

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Article

Hybrid Intelligence Strategies for Identifying, Classifying and Analyzing Political Bots

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Abstract: Political bots, through astroturfing and other strategies, have become important players in recent elections in several countries. This study aims to provide researchers and the citizenry with the necessary knowledge to design strategies to identify bots and counteract what international organizations have deemed bots' harmful effects on democracy and, simultaneously, improve automatic detection of them. This study is based on two innovative methodological approaches: (1) dealing with bots using hybrid intelligence (HI), a multidisciplinary perspective that combines artificial intelligence (AI), natural language processing, political science, and communication science, and (2) applying framing theory to political bots. This paper contributes to the literature in the field by (a) applying framing to the analysis of political bots, (b) defining characteristics to identify signs of automation in Spanish, (c) building a Spanish-language bot database, (d) developing a specific classifier for Spanish-language accounts, (e) using HI to detect bots, and (f) developing tools that enable the everyday citizen to identify political bots through framing.

Keywords: bots; framing; hybrid intelligence; empowerment; social media

1. Introduction

No longer just a software mediator, bots have become important players in various political systems (Salge and Karahanna 2018; Lewis et al. 2019). Since 2010, political parties and governments have spent more than USD 500 million on research and development in this field (Bradshaw and Howard 2018). Their effect on election and referendum results increases each year, with formally organized social media manipulation campaigns in 48 countries, compared to 28 in the previous year (Bradshaw and Howard 2018), though they develop and exert influence differently depending on the context.

Bots' political influence continues to grow (Montal and Reich 2017) due to their ability to create artificial public opinion and turn non-existent or minority opinions into majority or dominant ones (Ross et al. 2019). The receivers of these messages are defenseless given that they are yet unable to distinguish real from fake speeches, which employ deception so as to conceal their nature (van der Kaa and Krahmer 2014; Waddell 2018; Wölker and Powell 2018; Kušen and Strembeck 2020).

This research aims primarily to provide citizens with the knowledge necessary to create strategies for identifying political bots as a safeguard against their potentially negative impact on democracy, as a tool for achieving equality of opportunities in public debate for all political options, and to improve automated bot detection. We seek to do this by applying hybrid intelligence (HI), which will allow us to combine machine and human intelligence to overcome deficiencies in current artificial intelligence systems

(Dellermann et al. 2019; Kamar 2016). The idea is to leverage a multidisciplinary approach through AI, natural language processing, political science, and communication sciences.

We used HI to analyze the bots in Spain's April 2019 elections, leveraging previous studies on automatic bot detection (Perdana et al. 2015; Morstatter et al. 2016; Ramalingam and Chinnaiah 2018; Gamallo and Almatarneh 2019), a novel idea that has developed a great deal in the past year (e.g., the HI4NLP workshop proposed by two of this paper's authors and accepted by ECAI 2020, a referential European conference on artificial intelligence). Moreover, it has been applied in other contexts and fields, mostly to tackle problems with a clear social component or goal, like the one at hand in this paper. For example, it has been used in market analyses (Dellermann et al. 2019) or analyses of big data collected by sensors (e.g., smart cities), thanks to its focus on the Internet of Things (IoT) (Dellermann et al. 2017).

Moreover, we leveraged framing theory, taking frames as a speech-constructing and processing strategy (Pan and Kosicki 1993) that emphasize certain aspects of reality to encourage the desired interpretation thereof (Gitlin 1980; Gamson and Modigliani 1989; Scheufele 1999; Entman and Usher 2018).

We established four specific goals:

1. Develop Spain's first account classifier and define characteristics to identify signs of automation. We collected and indexed a massive amount of text from Twitter, analyzing the political bots of the resulting corpus so as to determine their defining characteristics. We measured their effectiveness at the individual and aggregate levels, leveraging various sets of characteristics so as to find the most effective. Among the heuristics explored were those featured in previous studies on Twitter.
2. Compile Spain's first bot database for Twitter. The database will allow for a subsequent analysis of bots' presence in and influence on Spanish public opinion.
3. Determine the typical characteristics of political bots during political campaigns based on political bots' profiles and tweets.
4. Analyze and develop tools for the public at large to identify bots without relying on automated machine detection.

This article contributes to the literature by (a) applying framing to the analysis of political bots, (b) defining a set of characteristics so as to identify signs of automation in Spanish, (c) compiling a Spanish-language bot database, (d) developing a classifier for Spanish-language accounts, (e) applying HI to bot detection, (f) identifying key information for the public at large to identify political bots, and (g) improving automated detection of bots.

Having set forth an introduction, we will now briefly review the relevant literature and describe the perspective we adopted in our research. Then, we will detail the methods and samples used, examine the set of features used by the bot classifier, discuss the results of the bot analysis, and propose a detection tool. Finally, we will discuss trends in the field, as well as the conclusions and limitations of our research.

2. Framework

2.1. Political Bots: Identification and Social Impact

Previous research focused on creating techniques to automatically identify bots by analyzing messaging behavior in the Twitter ecosystem (Schuchard et al. 2019; Badawy et al. 2019; Lai et al. 2019; Wang et al. 2020; Zheng et al. 2019). Bots' movement throughout Twitter was primarily analyzed so as to improve automatic detection systems. In keeping with Woolley and Howard (2016), political bots were defined as, "[. . .] the algorithms that operate over social media, written to learn from and mimic real people so as to manipulate public opinion across a diverse range of social media and device networks."

The most noteworthy results from previous research revolve around four central points: (a) influence on electoral processes, (b) functions, (c) taxonomies, and (d) regulation of political bots.

The literature indicates that between 5 and 25% of Twitter accounts are bots and that they are used more during election campaigns (Keller and Klinger 2019). Additionally, previous studies confirm political bots' influence on electoral processes in distinct political systems and contexts (e.g., Mexico (Glowacki et al. 2018), Venezuela (Forelle et al. 2015), Chile (Santana and Cánepa 2019), Colombia (López Urrea et al. 2016), the United Kingdom (Murthy et al. 2016), the United States (Howard and Kollanyi 2017; Frey et al. 2018; Luceri et al. 2019), Ecuador (Puyosa 2017), France (Ferrara 2017), Argentina (Filer and Fredheim 2017), Spain (Campos-Domínguez and García-Orosa 2018), Russia (Sanovich n.d.), 2017). Other performed comparative analyses of different countries (Anelli et al. 2019). Still, developments in bots and the influence they exert have varied country to country, and some have even sought to promote the use of good bots (McKelvey and Dubois 2017).

Political parties and other political players can track personal data to send campaign ads, determine the ideological makeup of their potential voters, and send personalized messages adapted to voters' needs in real time with no need for human intervention. Algorithms can reveal the public's state of mind, opinion, location, ideology, and needs. Moreover, they can be used to build and send in real-time messages designed to support the sender's positions and influence each and every type of voter. Bots can even hold conversations with people or amongst themselves. Here, the literature describes astroturfing as a system for creating fake public opinion, highlighting several bot actions (Treré 2016; Bastos and Mercea 2017): (a) pro-government ads, (b) creating fake opinion leaders, (c) delegitimizing systems of government, (d) supporting opposition groups, (e) empowering the public, (f) establishing political agendas and debates, and (g) weakening political dissent.

Taxonomies revolve around the bots' dynamics (Dagon et al. 2008; Chu et al. 2010; McKelvey and Dubois 2017) or devise specific categories for corpus analysis, as in Stukal et al. (2019), where bots were categorized as pro-regime, anti-regime, or neutral. One of the most thorough taxonomies includes various characteristics: professional news content, professional political content, polarizing and conspiracy content, and other policy news and information (Machado et al. 2018).

The detection of a large number of bots spreading false information and polarizing the political conversation (Bessi and Ferrara 2016) gave rise to various initiatives, an evaluation of changes to legislation, and proposals for intervention. Though some criticize regulation for potentially limiting freedom of speech (Lamo and Calo 2019), many countries and international organizations have recently developed such rules. The European Union warned of the threat to democracy if political parties generate automated messages adapted to the needs of each person based on big data analysis, which may even be manipulated by fake news (European Commission 2018; European Parliament 2017). Additionally, some countries have enacted laws to regulate artificial intelligence and computational propaganda (Italy in 2014, France in 2016, the UK in 2017). In November 2018, the European Commission adopted the Action Plan against Disinformation to minimize disinformation in European elections.

2.2. Our Approaches: Hybrid Intelligence

Our paper uses this context as a starting point, understanding that the sophistication of bots necessitates the development of mixed analysis methods that combine statistical methods with social sciences, which we seek to achieve through HI. Natural language processing and new AI techniques in the field of machine/deep learning (ML/DL) have been used in recent years to detect bots at the account level, processing a large number of social network posts and leveraging information on the network's structure, temporal dynamics, and sentiment analysis, and even using neural networks in large compilations of text data (Kudugunta and Ferrara 2018; Stukal et al. 2019). Nonetheless, we believe that bots' increasing complexity necessitates mixed methodologies that combine expert human knowledge with ML/DL and NLP systems.

This approach will allow us to feed the classifier with new information that will improve and allow for immediate detection of political bots, and will also allow individual users to do so, despite them not typically having access to such technological tools nor the ability to visualize a large number of bots.

We tackle bot detection through framing not only because it can connect with the messages' propagation dynamics and their cascade influence, but also because it is a model that successfully maps out the complexity of thought by paying attention to the elements of greatest significance in a given communicative context.

We assume that frames play an important role in public opinion and that bots can rapidly spread frames (tell people what to think about) so as to, as Entman (2010) points out, monitor public attitudes to influence people's behavior. This situation, combined with the spiral of silence, could become a powerful weapon for hiding opinions not just because they are a minority position but because they differ from those proposed by bots. Moreover, according to Chong and Druckman (2007), bots have two of the three frame-strengthening elements: frequency, accessibility, and relevance. The influence bots may exert through frame-spreading is portrayed in the following Figure 1.
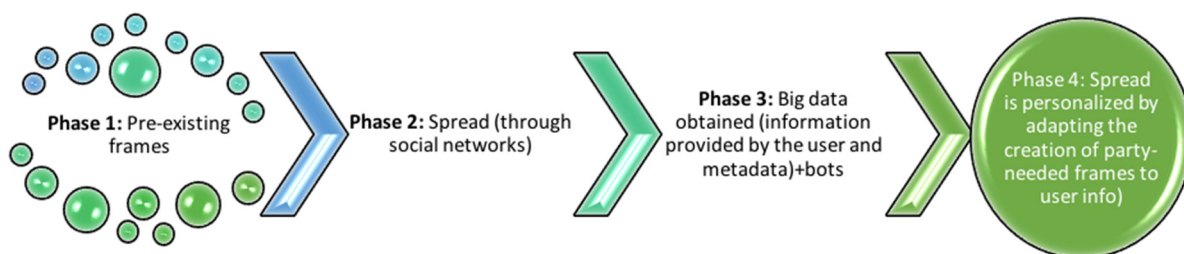

Figure 1. Source: created by authors.

Although bots may have initially been geared towards increasing a politician's non-existent popularity, they are not typically used to spread frames that tend to receivers' needs. A frame's success partially revolves around awareness and adaptation of pre-existing frames. As seen in the diagram, this is one of bots' strengths: Namely, the user imbues the bots with data analysis, allowing them to incorporate preexisting frames. If the spiral of silence were applied to political bots, a bot creator could quickly spread new frames consistent with receivers' preexisting frames so as to transform those initially rare or nonexistent frames into dominant ones.

Here we turn to the conceptualization and operationalization of the frame analysis, as well as to the trends in social network frames that underpin the tools used in our paper's empirical analysis.

Frames are a key concept in political communication, though they have been used in other fields as well (Bateson 2002; Goffman 1974). Frames can carry out four functions: defining problems, interpreting causes, moral judgments, and recommendations for treatment (Entman 2003). Their success is linked to interaction with individuals' pre-existing schema, pre-existing frames, and current information (Entman and Usher 2018).

The framing approach presents distinct typologies (Matthes 2009). For our purposes, the relevant typology is that which distinguishes between specific and generic frames (De Vreese 2005). Whereas specific frames revolve around specific topics or isolated events, generic frames transcend thematic limitations because the same issue can be identified in different contexts (De Vreese 2002). A great deal of research has applied such classifications: specific frames in Matthes (2009), Lengauer and Höller (2013), Hänggli and Kriesi (2010), Sheafer and Gabay (2009), Zhou and Moy (2007), and Matthes (2009), and generic frames in Aalberg et al. (2012), Iyengar (1991), Semetko and Valkenburg (2000), Neuman et al. (1992), and Lengauer and Höller (2013).

In keeping with Aalberg et al.'s (2012) work on generic frames, we dealt with game frames and strategic frames. Game frames take politics as a game that consists of winning

or losing, employs bellicose language, and emphasizes polling data. They typically focus on politics in general, legislative debates, the winners and losers of an election, and the battle for public opinion (polls), and speculate on election or political results and potential coalitions. The strategic frame refers to campaign strategies and tactics, motives and instrumental actions, personality, style, and metacoverage. It also includes different media strategies, including news that covers the press's behavior.

The first generation of research demonstrated that frames can affect public opinion on a wide range of issues (Aarøe 2011), though not to the same degree (Entman 2003; Aarøe 2011; Chong and Druckman 2007). Public actors compete to strengthen certain frames and several factors determine their success or failure in spreading new frames (Chong and Druckman 2007; Hänggli and Kriesi 2012).

Given social networks' consolidation as a form of political communication, framing processes, as well as the processes of information production and consumption, among others, need to be reevaluated (Entman and Usher 2018). Digitalization of online framing processes has significantly influenced interpersonal, family, and organizational communication and increased opportunities for extremism and balkanization (Entman and Usher 2018).

Initial studies applied framing theory to blogs and websites (Bichard 2006; Goldman and Kuypers 2010). To date, many framing-based studies of social networks have considered frame propagation dynamics in distinct but inter-related communication ecosystems (Wasike 2013; Aruguete and Calvo 2018).

Twitter has become a major political communication tool, especially during campaign seasons when parties and candidates use it to provide information about their campaign and its events or to link to their website (Jungherr 2016). Previous studies affirmed Twitter's ability to get out the vote and increase civic engagement (Gainous and Wagner 2014) and to change political commitment (Lee and Park 2013; Grčić et al. 2017). Academic research highlights bi-directionality, interactivity, the capacity for dialogue, and even promoting a participatory, deliberative democracy. More importantly, Twitter is the appropriate tool for politization given its ability to disseminate and cause messages to circulate, in addition to its fostering of public engagement (Utz et al. 2013; Abitbol and Lee 2017; Ji et al. 2018; Painter 2015).

Additionally, our paper considers Twitter a shared communicative space in which democratic deliberation could arise and each political actor could defend their positions. Moreover, we understand that for this to happen, an equal playing field is an important premise. Bots violate that condition by giving too much power to too few. Given that platforms refuse to take responsibility for this situation, the frames spread therein, and the beneficiaries (Entman and Usher 2018), we propose empowering the public to detect bots, promoting horizontal surveillance put into practice by people themselves in a somewhat planned way through cell phones and other devices that allow for reporting and sharing political actions with which they disagree. Our research aims to foster public detection of political bots, whose messages are often indistinguishable from those created by humans. Indeed, much of their success lies in this concealment.

3. Materials and Methods

We proposed a multi-disciplinary approach leveraging artificial intelligence, natural language processing, political science, and communication science. We applied hybrid intelligence to our analysis of political bots from Spain's April 2019 election, referencing previous studies on automatic bot detection. Below we summarize and explain our extraction methods and our analysis of tweets (Appendix A):

Step 1. *Crawler Design.*

The Polypus Twitter crawler (Martínez-Castaño et al. 2018b) retrieves tweets in real time from Twitter's public and anonymous Search API, used by its official web client. The tweets are formatted in HTML so they can be directly inserted in the site's feed. The API limits the number of returned tweets by returning a sample of the total that matches a

given query. Any user of the web interface is expected to receive the same set of tweets when executing the same query within the same time windows.

The high-level architecture of the system is shown in Figure 2. The crawler can be configured both for targeted and untargeted searches. The number of threads is configurable so that the queries are equally distributed and processed in parallel. In addition, multiple instances of the crawler can be executed on different machines so that the crawler scales horizontally. To avoid repeated tweets, a distributed memory-based key-value store is used to store the known identifiers for several days.
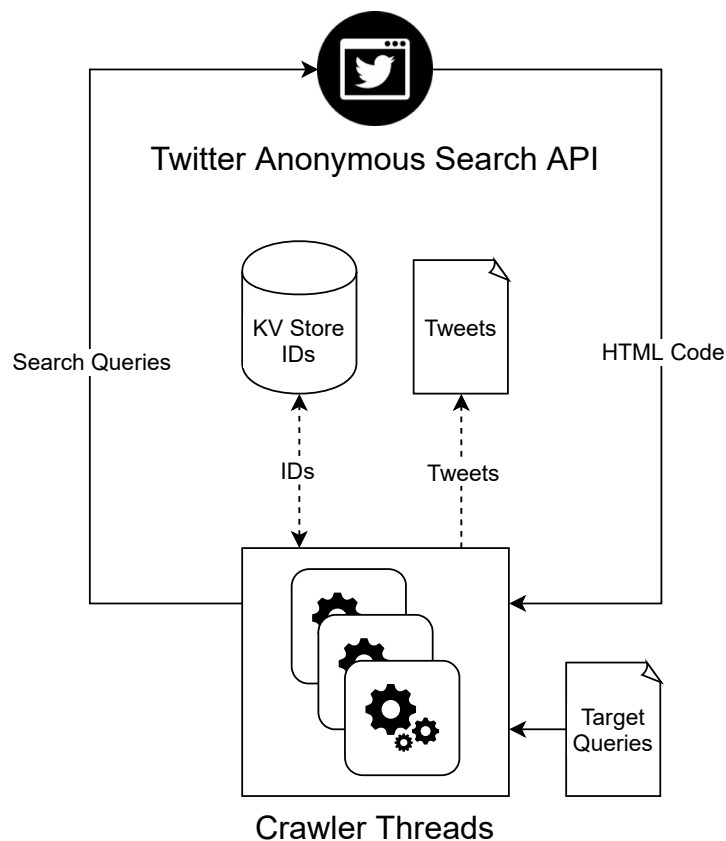

Figure 2. High-level Twitter crawler architecture.

The list of queries can be set as the list of the most frequent terms or expressions in a set of languages. With this strategy, the crawler can retrieve huge amounts of tweets without any specific target. There is not a linear relation with the available resources (due to the aforementioned limitations of Twitter's API). However, for specific targets such as in this study, the extraction can practically match the actual production of tweets through the use of specific terms, hashtags, or Twitter accounts. Dynamic data (e.g., retweets, number of replies) are collected afterwards since the tweets are extracted in real time and these attributes do not offer useful information about the users' interaction initially.

Polypus's Twitter crawler is now part of a set of social media crawlers integrated into Catenae (Martínez-Castaño et al. 2018a, 2018c), a Python framework for easy design, development, and deployment of stream processing applications with Docker containers[1].

Step 2. *Classifier features*. Extraction parameters (explained below).

Step 3. *Discourse analysis through framing*. Tweet content analysis parameters (explained below).

The sample was in keeping with those of other studies (Hedman et al. 2018; Schäfer et al. 2017). In addition to the campaign season, it also included the period between April 15 and May 5, with 575 candidate or political party accounts, as well as the hashtags promoted by those parties. The sample yielded the following Table 1 data:

Table 1. Capture time interval: [2019/04/16 10:15:00 UTC, 2019/05/09 10:59:19 UTC].

Unique users:	1,036,920
Tweets:	4,547,482
Tweets plus retweets:	22,296,826

Additionally, it combined analysis of parties' and candidates' accounts, as well as hashtags as we can see in the Table 2.

Table 2. Accounts, hashtags, and terms.

Accounts, Hashtags and Terms	
Accounts	@PSOE, @PPopular, @ahorapodemos, @CiudadanosCs, @eajpnv, @JuntsXCat, @compromis, @vox_es, @navarra_suma, @ForoAsturias, @coalicion@Esquerra_ERC, @ehbildu, @Nueva_Canarias, @sanchezcastejon, @pablocasado, @Pablo_Iglesias, @Albert_Rivera, @Aitor_Esteban, @jordialapreso, @LauraBorras, @joanbaldovi, @junqueras, @gabrielrufian, @sergiosayas, @PedroQuevedoIt, @anioramas, @Santi_ABASCAL, @meritxell_batet, @InesArrimadas, @cayetanaAT @Jaumeasens
Hashtags	#elecciones2019, #debates, #eleccionesgenerales2019, #28deabril, #eleccionesgenerales28A, #LaEspañaQueQuieres, #HazQuePase, #ValorSeguro, #VamosCiudadanos, #PorEspaña, #Perotampocoteconformes, #ahorapodemos
Terms	PSOE, PP, Podemos, Ciudadanos, PNV, Junts per Catalunya, Junts, Compromís, Navarra Suma, Partido Popular, Coalición Canaria, Esquerra Republicana, EH-Bildu, Nueva Canarias, Vox, Pedro Sánchez, Pablo Casado, Pablo Iglesias, Albert Rivera, Aitor Esteban, Jordi Sánchez, Laura Borrás, Joan Baldoví, Paloma Gázquez, Oriol Junqueras, Gabriel Rufián, Sergio Sayas, Garazi Dorronsoro, Pedro Quevedo, Ana Oramas, Santiago Abascal, Meritxell Batet, Inés Arrimadas, Cayetana Álvarez, Jaume Asens

We manually classified frames based on a sample of 50 accounts identified as bots and selected randomly, using the following categories: message dynamics, interaction on the network (links, retweets, replies), topics, goals, level of message repetition, end game, frequency, and frames, divided along the following lines:

(a) Structural level (syntactic and communicative). At the communicative level, we analyzed feedback in the network, the development of threads and references to previous messages, the use of denotative language, irony and double entendre, and connection to offline messages.

(b) Content level (framing). At the content level, we pinpointed three components: number of frames, issue-specific frames, and generic frames. Lastly, we evaluated to what extent each of these categories can be automated.

For this paper's context, we chose Spain's 28 April 2019 elections, which are particularly relevant for several reasons. First is the 74.65% voter participation, much higher than that of the 2016 elections won by the Spanish Socialist Workers' Party (PSOE in Spanish), at a time in which Spain's two-party system was splintering due to the emergence of two new parties (Podemos and Ciudadanos). Second, VOX, following its performance in the province of Andalusia's regional elections, could be anticipated to capture seats in the national parliament, as well.

Our study was warranted, moreover, because in Spain we had yet to recognize the extent of computational propaganda given there was only one exploratory study (Campos-Domínguez and García-Orosa 2018), which indicated that in 2019 the political algorithm would finally take hold in the country. With this phenomenon having advanced in recent years, it became necessary to undertake a multi-disciplinary study in Spain that further analyzed the situation and consequences for digital society and the electoral processes of 2019 and 2020.

4. Features of the Classifier

Feature selection is a critical process for classification tasks that rely on traditional machine learning. In this section, we describe the different types of features we used to design and implement a hybrid classifier, leveraging a model trained from annotated datasets and some generic heuristics determined based on prior knowledge formalized by experts in the domain. The system is therefore based on the HI paradigm, since it hybridizes automatic learning with information from experts.

4.1. Features

In order to train a classifier, we defined three types of features: social network, content-based, and lexical features.

4.1.1. Social Network Features

These are specific characteristics of the language used in social networks, consisting of textual elements that can only be found on Twitter:

- Ratio of the number of hashtags, i.e., number of hashtags used by a user account divided by total number of tweets sent from that account;
- Ratio of the number of retweets;
- Ratio of the number of URL links;
- Ratio of the number of user references;
- Ratio of the number of emojis;
- Ratio of the number of textual emoticons;
- Ratio of the number of onomatopoeias, e.g., "haha" in English or *jeje* in Spanish.
- Ratio of the number of language abbreviations, e.g., "b4" (before) or "btw" (by the way) in English, and "q" (*que*) or "xq" (*porque*), in Spanish;
- Ratio of the number of alliterations, e.g., repetition of vowel sounds.

4.1.2. Content-Based Features

These are features that can be extracted from any text message:

- Ratio of the size of tweets;
- Ratio of the number of identical pairs of tweets;
- Lexical richness, defined as lemma/token ratio;
- Similarity between sequential pairs of tweets. To obtain the final similarity ratio associated with a user account, all similarity scores between pairs of sequential tweets are added, and the result is divided by the total number of tweets.

These content-based features were created with just lexical words (i.e., nouns, adjectives, verbs, and adverbs) by making use of PoS tagging so as to identify them.

4.1.3. Lexical Features

Lexical features were derived from several domain-specific lexicons; in particular, two different weighted lexicons were automatically built for each language:

- A human/bot lexicon consisting of specific words belonging to two classes: the language of bots and the language of humans in Twitter;
- A sentiment lexicon consisting of polarity words (positive or negative) used by bots or humans.

Each lexicon was built by making use of the annotated corpora provided by the PAN Shared Task organizers and a ranking algorithm defined in Almatarneh and Gamallo (2018). As in the case of content-based features, only words tagged as nouns, verbs, adjectives, and adverbs were considered.

In order to find the best feature configuration in a classification task, we used a Bayesian algorithm. In addition to its simplicity and efficiency, Naive Bayes performs well in this type of task, as described in Alarifi et al. (2016), where the Bayesian classifier obtained the best results in the bot/human classification. Our classifier was implemented

with the Naïve Bayes Perl module (https://metacpan.org/pod/Algorithm::NaiveBayes, accessed on 30 June 2021) In order to lemmatize and identify lexical PoS tags, tweets were processed using the multilingual toolkit LinguaKit (Gamallo et al. 2018). The classifier was trained with the dataset provided by the PAN Shared Task.

4.2. Heuristics

Our hybrid approach features a system with two modules: a rule-based module consisting of generic heuristics defined with expert knowledge and the Bayes classifier developed with the features described above. The generic heuristics are applied before the Bayes classifier.

The generic heuristics use some of the features defined above; for instance, a user is considered a bot if the similarity of its tweets is above a given threshold, or if the number of hashtags and user references is very high yet the lexical richness is very low. Thresholds were set empirically. Preliminary results obtained with the PAN dataset collection (Rangel and Rosso 2019) showed that the hybrid approach, with rules and a statistical classifier, works slightly better than using just the rules or the classifier.

5. Analysis

Based on our data and the referenced literature, we created a set of characteristics for political bots during election campaigns, designed a strategy for identifying them, and indicated which ones are likely to be automated and included in our classifier, in addition to evaluating their effects on the discourse.

In the analyzed election campaign, the bot:non-bot ratio was 0.063%, and bots sent 1.903% of messages. Nonetheless, despite these low percentages, bots were highly active and tweeted an average of 132.30 times, compared to the 4.3 tweets of the average human account. Likewise, the average bot account tweeted 6.30 times per day, compared to 4.31 daily tweets by the non-bot accounts. Political bots were flexible and fast but rarely interacted with previous messages and elicited little interaction from other users (10.96% of posts received likes, 9.95% were retweeted, and none received replies, *n* = 9466 messages). Those that elicited likes typically received one per post, except during particularly active periods of message repetition, like the "EquiparacionYa" (a protest against the gender pay gap in Spain's security forces) and "Talidomida" campaigns (referencing those harmed by thalidomide, a pharmaceutical drug developed by the German company Grunenthal GmbH, sold in Spain between 1957 and 1963 as a sedative and nausea suppressor and that caused thousands of birth defects). The campaign featured, among others, the following messages:

> *#ElDebateDecisivo #ILPJusapol @jusapol @PSOE @populares @ahorapodemos @Ciudadanoscs @vox_es @europapress @EFEnoticias//Los talidomidicos hacen público su voto. Comparte[2]. #Avite #talidomida #28A #28Abril #CampañaElectoral #EleccionesGenerales #YoVotoGrunenthal #28AbrilElecciones #EleccionesGenerales2019 #Elecciones2019 #LaEspañaQueQuieres #110compromisosPSOE https://youtu.be/klCrtCJBkwQ* (accessed on 30 June 2021).

Such automated political messages tended to be part of synchronized, planned, goal-oriented mediated campaigns that featured high concentrations of messages during a short period (for example, intense criticism of another party's leader based on a specific act during a short period). Thus, we detected high-frequency tweets concentrated in a specific time interval and normally with a specific common goal. Such was the case in a relatively short time interval with the identified-as-bot account <user name="jucilcantabria">.

The aforementioned account sent the following messages:

> *El nombre es lo de menos, JUSAPOL SOMOS TODOS Estamos en cada rincón de este país y ¡No vamos a parar! #ILPJusapol #EquiparacionYa and similar retweets:// #EquiparacionYa #ILPJusapol @jusapol, eliciting a great number of retweets and likes.[3]*

The foregoing was part of the creation of an opinion climate linked to astroturfing or the sometimes-artificial creation of a favorable or unfavorable opinion climate. Such climates have low intensity but long duration. They have been addressed in previous studies but go beyond the scope of this paper.

The bot seems to have a single objective, typically support for a certain political party (or, in Spain's case, the left–right ideological blocs that played a major role in the analyzed election campaign), and it strives to achieve its objective by repeating those messages or topics that support it.

We detected five types of bots based on function: megaphone, amplifier, propagation of party platforms, electoral competition, and offline mobilization.

The megaphone function uses frequency to make a party's or bloc's frames and issues more visible.

The amplifier does not provide its own discourse, but rather it links to previous messages, primarily the media's. For example:

Extraordinario Editorial de El Mundo (5/5/2019) sobre el apoyo de la Fiscalía de Sánchez a los golpistas. Sánchez-blanqueador de golpistas y ennegrecedor de Jueces-camino de la traición. #España #PP #PSOE #Cs #UP #Vox #Cataluña #BCN2019 #PorEspaña #26M #HablamosEspañol pic.twitter.com/92DcSnUwWT[4]

The third type offers up the party's platform in a distinct message. For example:

body 1: @2Estela #VotaPSOE Las pensiones de viudedad aumentaran 4 puntos. Se beneficiarán más de 414.000 personas, en su mayoría mujeres mayores.[5] #HazQuePase #28A #LaEspañaQueQuieres #110CompromisosPSOE #PSOEPonienteSur #CórdobaESP https://pst.cr/6jrZVpic.twitter.com/KWtceL1JX0 (accessed on 30 June 2021); body 2: @AceitesCanoliva #HazQuePase Plan de Acción 2019-20 de internacionalización de la economía española.[6] #28A #VotaPSOE #LaEspañaQueQuieres #110CompromisosPSOE #PSOEPonienteSur #CórdobaESP https://pst.cr/4KPakpic.twitter.com/DTGQtb9n26 (accessed on 30 June 2021)

The election competition function mentions the electoral contest to secure votes and is used mostly by election bots. For example:

Llenemos las urnas de votos a Unidas Podemos para que tenga más votos que psoe y a la hora d formar Gobierno con Sanchez no se deslice éste hacia la derecha El voto a UNidasPod beneficiará así a la mayoría hasta ahora sacrificada, trabajadores clase media pequeña y grande empresa[7] o VOX sin cocinar 37/42. si el voto oculto es mayor del 15% para VOX . . . PUEDE LLEGAR A 45/47 este es mi pronóstico[8].

The last type of bot disseminates calls to offline action and normally responds to mediated campaigns. For example:

El día 25 ante la sede del PSOE en las capitales de provincia, para hacerle saber que la equiparación no se ha ejecutado. #EquiparacionYa #ILPJusapol @jusapol[9].

Though bots normally have but one objective, there are sometimes two. Depending on the issue, bots will tweet about a higher number of issues to achieve their goal or tweet about just one issue with greater frequency.

Based on this set of features and a content analysis of bots and their sociopolitical end game, rather than the network dynamics approach seen in previous research, we came up with a list of devices for framing prolific bots that would simultaneously enable the public at large to detect them without access to big data and allow us to feed our automatic classifier so as to achieve more precise measurements. As stated before, we assumed frames exert significant influence on public opinion and considered the various aspects of communicative elements:

(a) Structural level (syntactic and communicative)
(b) Content level (framing)

Regarding syntax, political bots spread telegraphic messages with similar syntactic structures and no complexities. For example:

la fuga de Garrido a @CiudadanosCs no creo q sea beneficioso ni para él, ni para el partido de Rivera; Nadie habla del gobierno d ahora en Portugal con lo cerca q está. No interesa Gobiernan los Socialistas con la izquierda. No hablan, porque están mejorando todos los indicadores Están recuperando el Estado del Bienestar q empezó a destruirlo Tacher Felipe Aznar Caída Muro>[10].

At the communicative level, there was little feedback on the network, they tended not to develop threads nor refer to previous messages, they used denotative language, they refrained from using irony and double entendre and, normally, they were linked to news articles or statements made by leaders.

Regarding content, we focused on three elements: number of frames, issue-specific frames, and generic frames. A bot tends to use just one frame, as seen in previous examples.

Regarding issue-specific frames, to make them easier to identify, we defined the most common categories of issue-specific frames in bots, avoiding references to issues specifically related to the Spanish elections dealt with in this paper: media reproduction or dissemination (issue-focused on an outlet's news piece), reproduction of leadership (issue-focused on a political leader's statements), circulation/visibility/repetition of a limited number of issues but high repetition/circulation of one single issue, hybrid (inclusion of calls to offline action), and partisan repetition (reference to a party)

The most prevalent game frames among bots are those that treat politics like a contest, typically focusing on who wins or loses an election; on the approval or disapproval of various interest groups, districts, or audiences; or on election results, politicians or potential coalitions, and in our case specifically, on the unlikelihood that any party would win an outright majority.

Lastly, in generic frames bots do not define the problem, nor do they interpret its causes or recommend solutions; rather, they tend to offer moral judgments and tend to be unable to build a complete frame. In this way, bots could be skilled, effective frame-transmitters but not builders or managers of complex frames.

Based on this analysis, we came up with a four-phase strategy for the general public to identify bots:

1. Identify a tweet's syntactic features;
2. Identify its communicative features;
3. Analyze the frames used: (1) frequency, (2) issue-specific frames, (3) generic frames;
4. Interaction with the automated message.

This bot detection scheme is summarized in the Table 3 below. The higher the score obtained, the more likely the message came from a political bot.

Basing our study on this set of characteristics and a content analysis of the bots and their sociopolitical end game, instead of focusing on network dynamics as in previous studies, we created a series of tools for classifying prolific bots that simultaneously allows the public at large to detect them without access to big data and allows us to feed our automatic classifier so as to achieve more precise measurements. As mentioned before, we assumed that frames exert significant influence on public opinion, and we took into account the various elements of communication.

The Table 3 gives some hints on how to identify a bot on the basis of different criteria that are easily detectable with a relatively low score for a relatively low number of messages. The more points a given message or set of messages accumulates, the more likely it is to be identified as a bot.

Table 3. Classification instructions for bot detection.

Level	Type		swDescription	Max Score	Applicable by Individuals?	Automatable?
Structural	Syntax		The bot uses telegraphic language	1	Yes	Yes
			The bot is repetitive	1	Yes	Yes
			The bot has a simple syntactic structure	1	yes	No
	Communicative		Lack of interaction and references to previous messages		Yes	Yes
			Scarce feedback on the network		Yes	Yes
			Does not develop threads	1	Yes	Ongoing learning process
			Links to media outlets		Yes	Yes
			Use of denotative language		Yes	No
			Lacks irony and double entendre		Yes	No
Content level	Number of frames		One frame	1	Yes	No
			Two or more	0	Yes	No
	Issue-specific	Dissemination of media outlets	Issue focused on reproducing news by a media outlet	1	Yes	No
		Dissemination of leaders	Issue focused on reproducing statements by a political leader	1	Yes	No
		Repetition	Not issue-heavy, heavy on repetition/dissemination with same issue	1	Sí	No
		Hybrid	Features calls to offline action	0	Yes	No
		Partisan dissemination	Reference to a party or leader	1	Yes	No
	Generic frames		Game frame	1	Yes	No
			Strategic frame	0	Yes	No
			Definition of a problem	0	Yes	No
			Interpretation of its causes	0	Yes	No
			Moral judgment	1	Yes	No
			Treatment recommendation	0	Yes	No

6. Discussion and Conclusions

The impetus for this research was the concern over the impact that the use of bots could have on democracy (Hagen et al. 2020). We developed a hybrid detection method that researchers had called for in previous studies. Moreover, we analyzed the use of bots in a specific context, to wit, the 2019 Spanish election campaign, which allowed us to compile a database for future studies, compare data from previous studies, and propose new categories for the analysis of bots.

First, we tackled our technological goal: to improve the detection of political bots by incorporating social science expertise in machine learning, deep learning, and natural language processing systems. We designed and employed a hybrid classifier, equipped with a model trained with annotated datasets and several generic heuristics comprised of previous knowledge formalized by experts in the field. Thus, the system is based on the hybrid intelligence paradigm, as it hybridizes machine learning and expert knowledge. As explained in Section 3, the preliminary results obtained through the compilation of PAN datasets (Rangel and Rosso 2019) showed that the hybrid approach, with rules and a statistical classifier, works somewhat better than the rules or the classifier alone. As such, we were able to detect and classify the political bots operating in Spain's 2019 elections, as well as to develop the country's first political bot classifier. Consequently, we were able to overcome the problems that arise upon using classifiers designed for texts written in English (Albadi et al. 2019).

The frequency and intensity of the bots we detected resembled those of previous studies (Bessi and Ferrara 2016; Forelle et al. 2015; Schuchard et al. 2019). Nonetheless, we did not detect the intent to engage other users in conversation, as seen in the bots detected in previous studies. Rather, the bots used in Spain's election campaign seemed more geared towards the repetitive dissemination of specific messages than generating interactions or conversations. We detected high-frequency, single-message tweets concentrated in a brief period of time. This idea is consistent with the strategies developed in recent years by Spanish political parties, which seek to increase user engagement (García-Orosa et al. 2017).

To round off the set of bot characteristics proposed by the scientific literature, which has focused primarily on bot dynamics in the Twitter ecosystem, we created a syntactical, communicative, and content-based framework that confirmed that they are governed by a series of inflexible decisions that fail to consider the unpredictability, spontaneity, and deviation from patterns inherent to human thought and behavior (Entman and Usher 2018). We also assumed that frames significantly influence public opinion and considered bots a highly useful and appropriate tool for the dissemination of strategically-designed frames.

Political bots have all the markings of a good frame transmitter due to their frequency, accessibility, and relevance, but above all, because they conceal their true nature as bots and learn from and adapt to pre-existing frames.

In addition to developing the aforementioned classifier, which will improve classifiers in future studies, we detected several trends that increase the threat bots pose to democracy. First, the bots in our study focused on problems in the game frames that distract users from the core message. Moreover, they have negative implications for democracy since they drown out and reduce the number of politically informed people. Likewise, the use of bots could foment cynicism and is already associated with lower levels of internal efficacy (Pedersen 2012).

Second, the overwhelming presence of a single frame, revolving around a party leader or party and sometimes previously disseminated by other media, confirms bots' ability to draw people's attention to certain issues and create artificial leadership, as indicated in previous studies.

With this acquired knowledge, we were able to design a bot detection tool that combines the technical and formal characteristics of bots with content analysis and, above all, an analysis of the elements that may be linked to the frame and play a marked role in the online manipulation of public opinion.

7. Limitations

Our research makes simplified assumptions of online communication, which should be complemented with additional factors and variables of analysis in subsequent studies. Additionally, it would be interesting to apply these results to organized Twitter campaigns analyzed in previous studies.

Though the use of bots is most visible on Twitter, one of the most-used platforms for political communication, it would be beneficial to study other platforms in this fashion.

Subsequent research could expand on this research and test the effectiveness of our tool by compiling various strata of audiences and including other factors. Additionally, a potential subject of study would be the possible interaction between the human receiver and the bot as one of the significant elements in confirming its level of empathy and the likelihood that it is an automated message.

Moreover, though efforts have already been made to increase digital literacy so that the public has the tools to identify forms of computational propaganda and limit their impact (Dubois and McKelvey 2019), we expect these results to be incorporated into an app or web platform designed to assist the public in said identification and counteracting.

Lastly, much attention should be paid to ongoing innovation in the automation of information.

Author Contributions: Conceptualization, B.G.-O.; Data curation, P.G.; Formal analysis, B.G.-O., P.G., P.M.-R. and R.M.-C.; Investigation, B.G.-O.; Methodology, B.G.-O., P.G., P.M.-R. and R.M.-C.;

Appendix A

To consult the repository, please visit: https://github.com/polypus-firehose (accessed on 30 June 2021).

Each line of the file contains the user's and the tweet's ID (one tweet per line). You need both to locate the tweet. The tweet's ID alone is not enough. The tweets' IDs can be found in the following file: https://nextcloud.brunneis.com/index.php/s/qkgy6s4CFHCC9tH (accessed on 30 June 2021).

user_id, tweet_id
AlfredoCelso, 1119894989327282182
mimundin, 1119894985971765248
. . .
The URLs should follow this format:
https://twitter.com/user_id/status/tweet_id (accessed on 30 June 2021).
For example, for the previous two:
https://twitter.com/AlfredoCelso/status/1119894989327282182 (accessed on 30 June 2021).
https://twitter.com/mimundin/status/1119894985971765248 (accessed on 30 June 2021).

Notes

1   https://github.com/catenae (accessed on 30 June 2021).
2   People affected by thalidomide make their vote known. Pass it on.
3   The name is the least important thing. WE ARE ALL JUSAPOL We're in all four corners of this country and we won't stop! #ILPJusapol #ParityNOW</body>.
4   Amazing editorial in *El Mundo* on Sánchez's Attorney General's support of the coup plotters. Sánchez whitewashes coup plotters and besmirches judges—the path to treachery.
5   Widows' and widowers' pensions will rise 4 points. More than 414,000 people will benefit, mostly older women.
6   Action Plan to globalize Spain's economy.
7   Get out and vote for Unidas Podemos to get more votes than the psoe so that when it comes time to form a Government with Sánchez he doesn't slide to the right. A vote for UNidasPod will benefit the until-now sacrificial majority, middle class workers small and large company [sic].
8   VOX as is stands at 37/42. If the secret vote for VOX is greater than 15% it COULD REACH 45/47 that's my prediction.
9   On the 25th in front of the PSOE headquarters in the provincial capitals, to let them know that the equalisation has not been implemented.

10   I don't think Garrido switching to @CiudadanosCs benefits him or Rivera's party; Nobody's talking about Portugal's current government despite how close they are. It doesn't matter the Socialists govern with the left. They don't say anything, because all the indicators are improving. They're getting back the Welfare State that Tacher [Thatcher] Felipe Aznar Fallen Wall started to destroy.

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Topic Modeling and Characterization of Hate Speech against Immigrants on Twitter around the Emergence of a Far-Right Party in Spain

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Abstract: In this paper, we sought to model and characterize hate speech against immigrants on Twitter in Spain around the appearance of the far-right party Vox. More than 240,000 tweets that included the term 'Vox' between November 2018 and April 2019 were automatically collected and analyzed. Only 1% of the sample included hate speech expressions. Within this subsample of 1977 messages, we found offenses (56%), incitements to hate (42%), and violent speech (2%). The most frequent terms used were classified into five categories: Spain, Immigration, Government, Islam, and Insults. The most common features were foul language, false or doubtful information, irony, distasteful expressions, humiliation or contempt, physical or psychological threats, and incitement to violence. Using unsupervised topic modeling, we found that the four underlying topics (control of illegal immigration, economic assistance for immigrants, consequences of illegal immigration, and Spain as an arrival point for African immigrants and Islamist terrorism) were similar to those in the discourse of Vox. We conclude that the hate speech against immigrants produced *around* Vox, and not necessarily *by* Vox, followed the general patterns of this type of speech detected in previous works, including Islamophobia, offensive language more often than violent language, and the refusal to offer public assistance to these collectives.

Keywords: Twitter; hate speech; topic modelling; natural language processing; VOX

1. Introduction

The use of social media is growing among societies independently from conditions, such as age, gender, or origin, and this has made it easier for people around the globe to share any kind of message, including audio-visual content, breaking the monopole of mass media in producing and spreading content. Among these social media platforms, Twitter has become a public space for political conversation (Moyá and Herrera 2015), allowing contact between politicians and citizens and becoming an essential player in the construction of the public agenda (McCombs and Shawn 1972).

Beyond the democratic and freeing effects of these media, this possibility for every citizen to express any opinion or feeling, making it public and accessible for almost every other person, has some risks associated, as offense and polemics can spread and reach a greater public. One of the clearest examples of this is the spread of online hate speech, as social media has allowed a faster and broader spread, which has led to greater visibility and, therefore, a greater impact and magnified effects. Through social media, a message that has not been verified in its production can be replicated and shared by any kind of account (Cueva 2012), which can be dangerous and harmful. Hate speech is especially dangerous as a trigger of potential hate crime (Müller and Schwarz 2018) and also as

a crime itself. However, there exist different approaches to defining hate speech, differentiating it from offensive language (Davidson et al. 2017), or generally speaking about "dangerous speech." This concept was established by Susan Benesch, who proposed that the efforts to reduce hate speech can be less effective due to the lack of clarity in its definition (Benesch 2014).

The increase in online hate speech (Bartlett et al. 2014) has taken place in a global context in which migratory movements are growing, as well as anti-immigration discourse, which makes hate speech against immigrants predominant. In the case of Spain, although the arrival of far-right parties to the institutions took place later than in other European or Western countries, the political party Vox is now the third force in the National Parliament and plays a relevant role in many regional and local governments, after entering in a regional parliament for the first time in the Andalusian Elections, held in December 2018.

In this context, the main goal of this paper was to use computational methods detect and analyze the dimensions of hate speech toward immigrants on Twitter within the frame of the Spanish socio-political scenario after the appearance of a strong far-right and anti-immigration party. The work seeks to fill the empirical gap existing regarding the features of hate speech against immigrants in the Spanish setting, to discover what characteristics define this kind of hateful speech in order to contribute to its identification and to the definition of a still unclear concept. This is intended to aid current efforts, such as the European project Preventing Hate against Refugees and Migrants (PHARM) or the Stop-Hate project, developed at the University of Salamanca of Spain, to identify and detect hate speech online.

For this research, we automatically collected data from social media using Twitter's application programming interface (API), and, using natural language processing techniques and topic modeling, we extracted valuable information from a large volume of unstructured data and tested the use of these two novel techniques in the field.

2. Theoretical Framework

The present work used, as a basis, studies that have already attempted to model or automatically detect hate speech online using big data or machine learning techniques, such as the study of Mondal et al. (2017), which used sentence structure to automatically detect hate speech in social media, or that of Schmidt and Wiegand (2017), which used natural language processing for the detection of hate speech. More focused on immigration and in Spanish, but without a focus on discovering hate speech, Gallego et al. (2017) used a semi-automatic coding method with a dictionary to analyze 862,999 tweets that included the word "refugee" in Twitter messages to study the discourse regarding women and refugees around the Crisis of Refugees of the Mediterranean.

The work of Ben-David and Matamoros-Fernandez (2016) monitored the activity of seven far-right pages in Facebook between 2009 and 2013 to analyze the presence of hate speech; they compared the frequency of certain words and their simultaneous occurrence to find patterns from which they could model underlying topics. This work showed how hate and discrimination on Facebook was being introduced within the legitimate boundaries of the Spanish political discourse. This study finished its analysis in 2013, prior to the appearance of Vox (at the end of that year) and long before its discourse became relevant in the Andalusian elections in December 2018. Our work follows a similar goal, but with a difference—that Vox is not a marginal party any longer, but one of the main actors in the Spanish political scene.

Another difference is that the focus is not on Facebook groups, but on Twitter content, not only due to the significance of this social medium for political communication (D'heer and Pieter 2014) but also because it has been proven a relevant and fruitful line of study for hateful content. In this vein, we highlight the efforts of Burnap and Williams (2015), who developed a model to detect violent and hateful content on Twitter with the goal of monitoring the reaction of the public to specific events that could be potentially controversial phenomena. In this interaction between online and offline events,

a very relevant project is Umati, led by Susan Benesch, who showed how the surge of online hate speech was influenced by real events.

Following these observations, other researchers explored social media to discover hate speech and its interactions with real events. Olteanu et al. (2018) characterized messages after extremist events along four dimensions (stance, target, severity, and framing) to detect hate speech, observing how some jihadist terrorist attacks that took place in Western countries had an impact and influenced hate speech towards Arabic and Muslim collectives, systematically increasing the number of messages promoting hate speech and violence towards these groups.

Evolvi (2018) also approached the spread of Islamophobia on Twitter in connection to the Brexit process with a qualitative analysis of Islamophobic tweets collected after the Brexit referendum in 2016. In the opposite direction, the aforementioned Müller and Schwarz (2018) observed how online hate speech in social media influenced and could even help in predicting real events of violence or hate crimes against refugees and migrants by modeling together anti-refugee attacks and the frequency of anti-refugee messaging on social media based on the Facebook page of the far-right party *Alternative für Deutschland* in Germany.

2.1. Defining Hate Speech

To approach this topic, it is important to consider freedom of speech, as the clash of its limits with xenophobic, extremist, or racist discourses goes beyond the law and becomes a discussion of political philosophy (Alcácer 2015). However, here, we will use a communicational perspective, understanding that speech has a social projection, as it aims at one or more audiences, whether they are broad or small, and it can be legally restricted if it harms or limits the freedom of others (Cueva 2012). Recommendation No. 15 of the European Commission against Racism and Intolerance (2016) defines hate speech as promoting hate, humiliation, or underestimation in any form against a person or a group, motivated by race, skin color, ancestry, national or ethnic origin, age, disability, language, religion or beliefs, sex, gender, gender identity, sexual orientation, or other personal characteristic or conditions. The Framework Decision 2008/913/JHA of 28 November 2008 of the European Council (2008) defines hate speech as "publicly inciting to violence or hatred directed against a group of persons or a member of such a group defined by reference to race, color, religion, descent, or national or ethnic origin."

More specifically, online hate speech has been defined or characterized in several previous works. We highlight Miró (2016) taxonomy of hateful content online, including any violent expression, which will be one of the bases for our model. Waseem and Hovy (2016) also defined a set of features to reliably decide whether a message shows hate speech or not, as it tends to be complex for different people to agree on homogeneous criteria in this matter. Other relevant work includes that of Warner and Hirschberg (2012), which addressed numerous problems when determining whether a message should be considered hate speech, as the use of specific words or expressions might not necessarily mean an expression of hate.

Davidson et al. (2017) observed that the combination of offensive language and hate speech might lead to errors in the distinction between both concepts. However, Mondal et al. (2017) considered that any post motivated entirely or partially by the author's prejudice toward an aspect of a group should be seen as hate speech and, in order to overcome the previously mentioned problems, they designed a different system, based on the detection of the complete structure of sentences. Finally, we also followed other indicators, including obscene language or other distasteful expressions, because Schmidt and Wiegand (2017) defended that this type of language is central to the detection of hate messages when combined with other features. Although less relevant for our text, there have been approaches to study anti-immigration discourse on social media from the perspective of qualitative techniques, such as the one of Kreis (2017), guided by critical discourse studies.

In Spain, it was not until 2015 when the *Disposición final sexta* of the LO/1/2015 CP of the Gobierno de España (2015) adopted this European Framework Decision to the domestic legislation. It is article

510 of the Penal Code of Spain that punishes hate speech in any form for "racist, anti-Semitic or other reason referring to ideology, religion or beliefs, family situation, belonging to a race, ethnicity or nation, national origin, sex, sexual orientation or identity, gender, illness or disability." However, the Law in this country does not protect a group as a general rule without further reason; instead, it demands specific conditions that lead a group to a situation of vulnerability. According to the Ministry of the Interior of Spain, there are eight motivations or prejudices that lead to the existence of vulnerable groups: racism/xenophobia, sexual orientation or identity, religious praxis or beliefs, disability, gender, antisemitism, and aporophobia. They all might interact with each other, aggravating some situations.

The object of this study was hate speech against immigrants, given that, according to the figures of the Statistic System of Criminality (SEC) of the Ministry of the Interior of Spain, racism and xenophobia are the reasons behind the largest number of cases of hate speech and hate crime in the last years. Online hate speech against immigrants in Spain has been already tackled by Valdez-Apolo et al. (2019), who showed that negative messages are predominant when talking about migrants and refugees and also observed that immigrants are usually framed as a threat.

Arcila-Calderón et al. (2020) studied the presence of rejection of immigrants in Twitter messages with a mixed manual and automated content analysis of tweets. Gualda and Rebollo (2016, p. 208) used a semi-automatic coding method with a dictionary to study the discourse regarding refugees in Twitter in different European nations, including Spain, and observed how messages can have xenophobic connotations and how "sometimes these discourses are supported by politicians, such as Donald Trump or other organizations in Europe". In a broader sense, this article will also complement those works that tackle the attitudes toward immigrants, such as Murray and Marx (2013) and Verkuyten et al. (2018).

Together with the works analyzing hate speech or rejection against immigrants, both in Spain and internationally, it is relevant to study the connection of this type of discourse with nationalism, as Peherson et al. (2011) did using a cross-sectional and longitudinal study. More specifically, in recent years, parallel to the rise of far-right populist parties, scholars have paid great attention to the role that anti-immigration nationalism has for these parties. In this field, Lubbers and Coenders (2017) studied how nationalism connects with radical right voting. In the Spanish setting, the analysis focused on the multiple reasons for the absence (until recently) of a populist radical right (PPR) party. Alonso and Kaltwasser (2015) mentioned the cleavage structure of the country and the strategy of competition of the mainstream right and the electoral system, and Casals (2000) added the lack of organization and the archaic political culture, far from the influence of European far-right parties. In a similar line, Morales et al. (2015) focused on the ambivalent approach to immigration by the main Spanish political parties.

These works are, however, now outdated: first, because Teruel (2017) observed that concern about hate speech and the conducts built upon prejudices and stereotypes in Spain have grown, and more specifically, because the arrival of the far-right political party Vox has altered the political scenario in Spain, bringing also the topic of immigration—and, particularly, anti-immigration—into a more visible position of the political agenda as stated by Castromil et al. (2020) after analyzing the political program, the use of Twitter, and the political debates of different parties. Arango et al. (2019) also defend that the Spanish exception within the European context ended with the arrival of Vox to the Andalusian Regional Parliament in December 2018 and to the national one in April 2019, making anti-immigration a more relevant matter of the public discourse.

Other studies have investigated the individual-level determinants of vote choice that explain the rise of this party (Turnbull-Dugarte 2019; Turnbull-Dugarte et al. 2020), and Ferreira (2019) conducted a qualitative content analysis of the political programs and discourses based on the causal chain method, confirming anti-immigration nationalism as a differential aspect of this party. However, there exist no studies similar to the one of Ben-David and Matamoros-Fernandez (2016), focusing not only on the party, but on the discussion around it, since the arrival of Vox to the highest democratic institutions of Spain. That is why we proposed to answer the following research question:

RQ1: What are the features of hate speech toward immigrants around the emergence of a far-right party, such as Vox?

The interest of this question is not only the study of hate speech in a particular context but also, given that the anti-immigration discourse surrounding Vox is one of the most defining sources of hate speech against immigrants in Spain, to model the topics underlying this type of discourse. That is why we proposed to answer:

RQ2: What are the underlying topics of hate speech toward immigrants around the emergence of a far-right party, such as Vox?

Both questions attempt to go further than the observation of the amount or the visibility of hate speech, focusing on the features and characteristics and also attempting to comprehend what topics are addressed when this discourse is used. This is a key aspect to understanding what is behind this discourse and how to address it, complementing some preliminary efforts in this sense, such as the study of Arcila-Calderón et al. (2020), regarding what negatives aspects were associated with the rejection of migrants and refugees.

In order to answer those two questions, we will use, as a reference, the taxonomy of hate speech and violent communication online, built by Miró (2016) in his monitoring of hate speech in the frame of the jihadist attack toward the French magazine *Charlie Hebdo*, as well as the parameters that differentiate hate speech from offensive or vulgar language of Davidson et al. (2017). More specifically, we sought to use computational methods to discover the topics behind this discourse, as well as the most frequent and relevant terms in Spanish that allow for the detection of hateful content in digital media, creating a database that can be used in future projects.

3. Method

3.1. Sample and Procedure

Using Python's library *Tweepy*, we accessed Twitter's application programming interface (API) to collect tweets related to Vox, taking advantage of this interface (Ong et al. 2015) to obtain the unstructured data for the study. Specifically, we collected tweets both from API Rest and from API Streaming. The first collects tweets using one or more keywords or hashtags from the historic flow of messages of the last ten days, whereas the second collects all messages produced in real time with one or more keywords or hashtags.

We retrieved all tweets in Spanish (lang=es) and excluding retweets (exclude="retweets") that contained the word 'Vox' in the track—that is, any field of a tweet, including the name of the account that produces it, the text of the tweet, the links shared, etc.—from 25 November 2018 until 28 April 2019. The initial date of collection was close to the regional elections in the region of Andalucía (2 December), in which Vox obtained their first seats in a regional parliament of Spain. The collection period also included 15 February 2019, when the announcement of new elections in Spain by Pedro Sánchez, President of the Government, took place. The final day of collection was the day of the National Parliament Elections. In total, 244,095 messages were collected for a period of six months.

The tweets were collected in JSON format, which allows running filters, such as date, language, geographical location, name of the user, etc. However, only the text of the tweet was analyzed, given that the analysis was intended to study the features and topics of the message, not a time or geographical distribution. The messages were produced by official accounts of the party, or by media or citizens naming the word 'Vox' in their content, generating tweets of multiple and diverse topics. As explained in the next paragraphs, we later filtered this enormous number of messages by manually removing those not containing hate speech toward immigrants in one of the three ways defined by Miró (2016), so that we could use a subsample for manual and computational analysis.

The whole procedure, which will be detailed in the next section paying attention to each step, was as follows: a sample of 244,095 tweets that included the term 'Vox' somewhere in the track of the tweet

was automatically collected, and then a manual classification allowed us to obtain a subsample of 1977 tweets that included expressions of hate against immigrants. That subsample was afterward classified in three groups following Miro's classification (2016), and a manual exploratory analysis was conducted to observe the features of language in those tweets. Then, two computational methods were used to investigate the features and topics of the discourse of the subsample of hateful contents: first, natural language processing was used to identify the most frequent terms in each of the three groups in which hate speech was classified; and, second, latent Dirichlet allocation (LDA) topic modeling was used to discover what topics underlay the whole subsample of hateful messages.

3.2. Measures

3.2.1. Hate Speech towards Immigrants

Based on the contemporary discussion regarding hateful content online as explained in Section 2.1, we considered any message in Twitter that directly or indirectly damaged the image of individuals or groups based on their condition of immigrant, refugee, asylum seeker, or displaced as *hate speech toward immigrants* (Miró 2016; Waseem and Hovy 2016; Warner and Hirschberg 2012; Davidson et al. 2017; Mondal et al. 2017; Schmidt and Wiegand 2017).

Although these works offer guidelines for the detection of hate speech, Schmidt and Wiegand (2017) presented their concerns regarding the problems of reliability and the difficulty of consensus due to the lack of unanimity in the definition of hate speech. With this in mind, in the present study, the following criteria were established to determine whether a message contained hate speech against immigrants:

They had to be messages showing contempt or hate toward the collective of immigrants and, in particular, those expressions using pejorative terms against immigrants, as well as those demanding or justifying a restriction of the rights of immigrants. Messages that were considered offensive or hurtful against feelings or beliefs of the collective were also included, together with those containing insults or grave offenses against a particular person or group of the immigrant collective. It was also considered hate speech when there was an association of individual victims or the whole collective with crimes or illicit behaviors when this association was intentionally false or not concerned with the truth of the accusation. Finally, the direct or indirect promotion of physical violence against one well-known member or the whole immigrant collective, as well as expressions of defense, justification, trivialization, or glorification of that violence.

To obtain the inter-coder reliability of this variable, two independent judges were trained to analyze a random sub-sample of 24,225 messages (~10% of the total sample). According to the degree of agreement between both coders, we used Krippendorff's alpha to test the reliability, as this is the most recommended measure (Hayes and Krippendorff 2007). We obtained a value of 0.88, which is over the acceptable minimum of 0.7 (Neuendorf 2002).

3.2.2. Types of Hate Speech against Immigrants

Hateful messages were classified according to the types proposed by Miró (2016): (a) direct incitement or glorification of violence; (b) incitement to discrimination, hate, or restriction of rights; and (c) offenses against feelings. These types allowed a classification of hate speech at three levels of danger. According to the pyramidal shape (Figure 1) it was expected that a majority of hate messages would belong to the category of offenses against feelings, and the smallest proportion would be those directly inciting or glorifying violence. We also conducted an inter-coder reliability test, obtaining a Krippendorff's alpha of 0.78, which was adequate for the study.
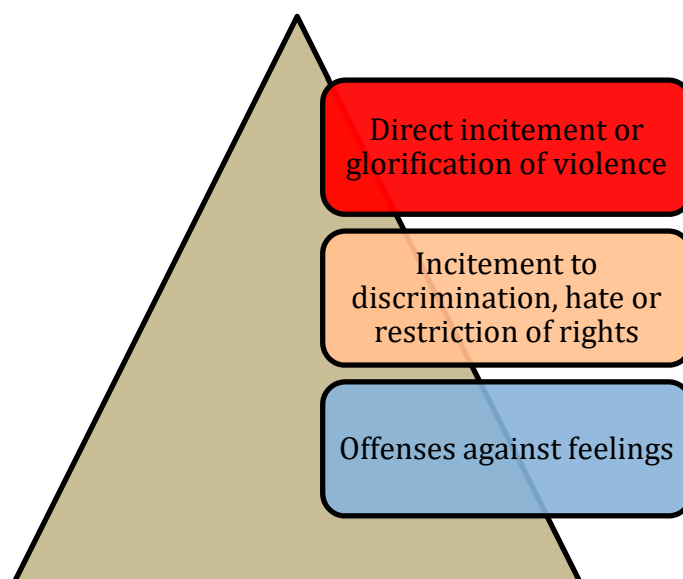
Figure 1. Theoretical types of hate speech from Miró (2016).

3.2.3. Frequency Distribution

We applied basic natural language processing (NLP) techniques to obtain the frequency distribution in hateful tweets against immigrants. NLP is a branch of computational sciences that is combined with applied linguistics and attempts to make a machine process and "comprehend" what a text in a particular language means. Essentially, NLP seeks to convert a text in a set of structured data that describe its meaning and the topics it mentions (Collobert et al. 2011). NLP-based technologies are growing in presence and play a relevant role in the current multi-linguistic societies (Bird et al. 2009). The programming language Python offers a broad library that includes components for graphic programming, numeric processing, and web connectivity. For the present study, it was essential to previously install the *Numpy* library, which adds stronger support for vectors and matrixes, as well as the *Natural Language Toolkit* (*NLTK*), which defines an infrastructure that allows the development of NLP programs (Bird et al. 2009).

This type of linguistic analysis based on the distribution of the terms of a text was used as previous step for the identification of underlying topics after a filtering process and counting of the most frequent terms, both in the sub-sample of messages containing hate speech against immigrants and in the different categories that are part of it. Knowing the most frequent words offers valuable information that will be useful for interpreting the results of the topic modeling.

The first step for properly conducting NLP techniques was the identification of tokens, the basic units, typically simple words or sentences, in which a text can be deconstructed for its following analysis. A token cannot be deconstructed into smaller parts; thus, in computational methods, a token is considered an atom (Webster and Kit 1992). For this process, called tokenization, we used the NLTK library in Python, together with the module that tokenizes the text at the level of *words*,[1] and we indicated the location of the text that should be analyzed.

The following step was the removal of Stop Words, that is, words that do not give relevant information and that are very common, such as articles or prepositions. It is vital to also remove punctuation, accents, and web links to avoid the repetition of terms and to obtain homogenous final results. Finally, we were able to observe the most repeated terms and their distribution and decide on the number of topics that we want to obtain.

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[1] Other approaches such as TFIDF or N-gram for text representation were not considered in this study.

3.2.4. Topic Modeling (Latent Dirichlet Allocation—LDA)

To detect underlying topics in hateful tweets against immigrants, we applied unsupervised machine learning in the form of topic modeling using the latent Dirichlet allocation algorithm (Blei et al. 2003). LDA is the most commonly used algorithm for topic modeling (Grimmer and Stewart 2013) and is frequently used to identify the topics in a set of documents (Ramage et al. 2009), allowing the automatic modeling of a large amount of data and to visualize this data as a combination of topics (Canini et al. 2009). According to Keller et al. (2020), this technique "is a form of automated content analysis that infers latent thematic structures called topics within documents in a 'bottom-up' approach." This approach allows the inference of topics from texts—in this case, tweets—without prior knowledge or an extensive manual annotation. The topics are detected by discovering patterns in the presence of clusters of co-occurring words across documents (Jacobi et al. 2015).

This method tends to be used in larger texts, such as articles from newspapers (Keller et al. 2020) or abstracts of journals (Zou 2018), but there are some arguments that push us to employ it in shorter messages, such as tweets: the longer extension of tweets since 2017 of 280 characters instead of 140, the relevance of Twitter in the construction of public discourse in the present—particularly around populist and radical parties, and the interest to test this technique in this medium in Spain, discovering whether it can be applied in larger studies. In this case, the application of the model to the sub-sample will allow us to dig into the connection of the terms that build hate speech against immigrants in Spanish and, this way, obtain groups of words that can be used to deduct the topic behind it.

For this task, beside NLTK, it was also necessary to import the following libraries of Python's version 3.7: *pandas* (data analysis), *seaborn* (visualization), *gensim* (topic modeling), and *pyLDAvis* (visualization of topics). After importing all the requested libraries and modules and selecting the text we want to model, the first step was to remove punctuation signs and double spaces and convert all text into lowercase. The first model conducted here offers a *naïve model* that does not discriminate Stop Words; a list of these words can be also imported and applied so that we can achieve a more adequate modeling.

For this, it is advisable to use coherence measures of the topics; by calibrating the level of semantic similarity among words with a high score inside of a topic (Stevens et al. 2012), a more precise model can be achieved. For that goal, the *Umass coherence index* of the text we want to model must be calculated based on the number of topics and the number of terms inside of each; the further from 0 the obtained value is, the higher the coherence level is. For example, the lower coherence level that *naïve models* have is explained because of the presence of Stop Words, irrelevant terms that introduce noise in the text, reducing the coherence of the topics.

Finally, the *pyLDAvis* library will allow us to print a map for visually exploring the final result of the modeling in a quick and simple way. This library also contains a tool that adjusts the level of λ(lambda) to increase or decrease the frequency ratio of a selected topic.

4. Results

4.1. Distribution of the Sample and Sub-Sample

The total amount of collected messages was 244,095, of which 1977 were classified as hate speech against immigrants in the phase of manual tagging according to the previously mentioned rules (Figure 2 shows the proportion of messages that built the sub-sample inside of the total sample). The sub-sample built with those 1977 tweets in which hate speech was detected was divided into three categories depending the level of danger of the hateful discourse included in the text (Figure 3 shows the distribution of the sub-sample in the three previously specified categories of hate speech). The biggest group of this three, with 1026 tweets (56% of the total) was for the least serious type of hate, the type that included offenses against the sensibility of others; the second group, with messages that incite discrimination, hate, or the restriction of rights, had 757 messages (42%); and the most dangerous type of hate expression, the type promoting violence, was present in 42 messages—2% of the total.
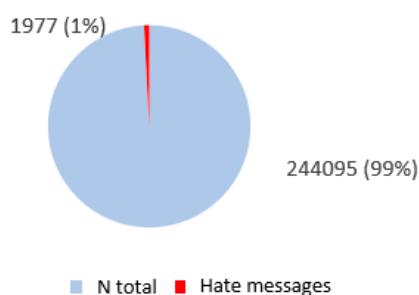
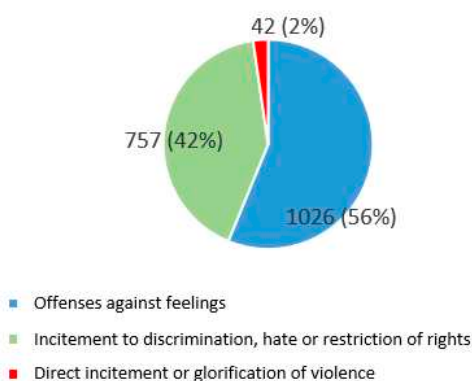**Figure 2.** Proportion of hate messages inside of the total sample.

Figure 3. Types of detected hate speech.

4.2. Features of Hate Speech

Using exploratory analysis, we identified features of the different dimensions of hate speech, such as foul language, false or doubtful information, irony, distasteful expression, humiliation or contempt, physical or psychological threats, or incitement to violence.

- *Foul language*: Dishonest or obscene words are used. As previously mentioned, the presence of this type of language in a message does not necessarily mean that there is hate against immigrants, and it is the co-occurrence—the proximity between the two terms—that determines the presence of hate. For example, when the obscene word is applied to the collective of immigrants, the presence of hate speech is more common, as in: "Putos inmigrantes. La gente que quieren que se mueran de hambre. esos merecen la pena. Viva VOX."[2]

- *Incitement to violence*: This type of message invites others to conduct violent acts against a specific person or collective. This dimension is linked to physical and psychological threats (see next point), but it is based on an abstract call rather than a direct threat. In the next example, we can see how the emitter calls for the expulsion of immigrants in a violent way using despising terms in a threatening way: "A día de hoy solo Vox, pide acabar con la inmigración ilegal. Españoles hay que votarlos para limpiar España de estos salvajes. Y los que no los voteis, disfrutar de lo votado."[3]

- *Physical or psychological threat*: These messages go against the physical and psychological integrity of the victims (Miró 2016), and, unlike the previous group, the threat is more immediate and leads more directly to the completion of the violent act. It must be highlighted that violence might not

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[2] Published 30 November 2018 at 19:22. In English: "Fucking immigrants. People want them to starve to death. They deserve the punishment. Long live VOX."

[3] Published 25 November 2018 at 21:45. In English: "To this day only VOX demands to end illegal immigration. Spaniards, we have to vote to clean Spain from these savages. And those who do not vote for them, enjoy your vote."

be the end but rather a means, as in the following example: "A ver si sale vox y echamos a todas estas putas ratas de el pais."[4]

- *Humiliation and contempt*: Underestimation of a person or collective and rejection of them based on their inherent condition. For Schmidt and Wiegand (2017), this dimension is sometimes given by the context, and so it might be hard to detect. See, for example: "Pues a mí me han convencido los de #vox, por fin gente como #shakira, #Messi, #Griezmann, #benzema . . . Dejarán de quitarle el trabajo a nuestros hijos españoles! A su casa!! #VOXalNatural #Politica #EleccionesYa."[5]

- *Distasteful expressions*: Eschatological, vulgar, or disgusting expressions are used. This type of expressions can vary depending the geographical location of the emitter and the addition of a negative charge to the message. In the next example, it can be seen how these expressions highlight the hate against a specific group of immigrants: "Fuera los Moros!, . . . tomar por culo su religion! a si de claro!, . . . que se vaya la coño norte de Africa!"[6]

- *Irony*: This is the hardest to detect as the hate is expressed in a subtler way. In the next example, we can see how sarcasm is used to criticize and to say the opposite to the literal meaning of the words: "Pero los crucifijos fuera de las escuelas . . . y @vox_es son muy malos. Los siguientes hombres de paz van a ser los del ISIS . . . no?"[7]

- *False or doubtful information*: These messages include unconfirmed generalizations, stereotypes, or false affirmations regarding a collective. In the context of hate speech content, it is common that these messages attempt to create social alarm regarding something that attacks the internal culture or beliefs with external impositions. For example: "Exacto. Sin embargo, nos están destruyendo nuestras creencias, nuestras tradiciones e imponiéndonos islamismo radical y "culturas" ajenas a nosotros y que faltan el respeto."[8]

4.3. Frequency Distribution

We obtained the most common words used in hateful comments against immigrants in Spanish in order to characterize this kind of speech. After adding all the Stop Words[9] and removing the terms that share the lexeme, we obtained the following list of the 20 most representative terms of content containing hate speech against immigrants (n = 1977):

('inmigrantes', 540), ('españa', 383), ('pais', 264), ('ilegales', 251), ('inmigracion', 237), ('españoles', 160), ('mujeres', 134), ('musulmanes', 92), ('europa', 84), ('partido', 81), ('moros', 73), ('islam', 73), ('ayudas', 71), ('extranjeros', 69), ('votar', 64), ('gobierno', 60), ('pp', 55), ('expulsar', 55), ('trabajo', 51), and ('negro', 49).[10]

We conducted the same approach for each of the sub-categories. The 20 most frequent terms in the group of *Offenses against the feelings* (n = 1026) were:

('inmigrantes', 307), ('españa', 181), ('inmigracion', 180), ('ilegales', 170), ('pais', 111), ('españoles', 70), ('partido', 48), ('pp', 41), ('musulmanes', 40), ('gobierno', 35), ('andalucia', 34), ('mujeres', 34),

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4   Published 15 December 2018 at 23:29. In English: "Let's hope Vox wins and we remove all these fucking rats from the country."

5   Published 12 December 2018 at 22:27. In English: "I have been convinced by Vox, finally people like #shakira, #Messi, #Griezmann, #benzema . . . will stop taking the jobs from our Spanish children! To their house! #Voxasitis #Politics #ElectionsNow."

6   Published 11 December 2018 at 21:08. In English: "Out with the moors! Fuck off with their religion! Clear as day! Fuck off to the fucking North of Africa!"

7   Published 13 December 2018 at 23:08. In English: "But the crucifixes out of the schools . . . and @vox_es are very bad. The next men of peace will be the ones of ISIS, right?"

8   Published 25 November 2018 at 21:05. In English: "Exactly. However, they are destroying our beliefs, our traditions and forcing us into a radical Islamism and "cultures" that are alien to us and that are disrespectful."

9   Even when some terms might be not special or meaningful for the analysis, we did not include in the Stop Word list reference terms such as "Inmigrantes" (immigrants) or "España" (Spain). We consider that far from being redundant they might offer better results in the co-occurrence analysis.

10 In English: "immigrants, spain, country, illegals, immigration, spanish [masculine plural], women, muslims, Europe, party, moors, islam, benefits, foreigners, vote, government, pp [People's Party of Spain], expel, work, black."

('negro', 34), ('europa', 34), ('expulsar', 34), ('extranjeros', 32), ('votar', 31), ('islam', 31), ('programa', 29), ('melilla', 29).[11]

The representative words in the group Incitement of discrimination, hate, or restriction of rights (n = 757) were:

('inmigrantes', 179), ('españa', 173), ('pais', 130), ('españoles', 77), ('ilegales', 77), ('mujeres', 70) ('musulmanes', 64), ('ayudas', 55), ('moros', 44), ('europa', 44), ('inmigracion', 39), ('islam', 39), ('religion', 28), ('extranjeros', 26), ('musulmana', 24), ('mierda', 21), ('ley', 21), ('derechos', 21), ('cultura', 20), ('machistas', 20).[12]

In the case of Direct incitement or glorification of violence (n = 42) we obtained:

('españa', 11), ('pais', 9), ('inmigrantes', 6), ('putos', 6), ('mierda', 6), ('culo', 6), ('moros', 5), ('coño', 5), ('musulmanes', 5), ('puto', 4), ('puta', 4), ('niñas', 3), ('hijos', 3), ('basura', 3), ('violadores', 3), ('inmigracion', 2), ('españoles', 2), ('limpiar', 2), ('delincuentes', 2), ('gentuza', 2).[13]

To obtain a better understanding of this analysis, we manually grouped all the terms detected into five topics selected for the study (see Table 1).

Table 1. Manual grouping of the terms by topic.

Spain	Immigration	Government	Islam	Insults
España	inmigrantes	programa	religión	mierda
españoles	inmigrante	ayudas	cultura	putos
español	Ilegales	trabajo	musulmana	puto
país	Ilegal	votar	musulmán	negro
Andalucía	extranjeros	problema	musulmanes	basura
Melilla	expulsar	ley	moros	gentuza
	países	Europa	mujeres	violadores
		derechos	mujer	delincuentes
		partido		coño
		pp		culo
		psoe		machistas

4.4. Topic Modeling

After obtaining the distribution of frequencies for the general hateful tweets and for each of the specific three categories, we conducted topic modeling to automatically detect the underlying topics in this kind of speech. To determine an adequate number of topics, we measured the level of coherence—the farther from 0, the better—and we compared several models with 15 words for each topic and decided that the adequate number of topics was five, as this number offered a coherence value of −7.8415, the farthest from 0, as, from 6 topics onward, it started decreasing. After recursively removing the Stop Words, we detected and labeled the next topics:

Topic 1: Lack of control of illegal immigration by the State. This refers to an alleged negligence from the Spanish government and the public institutions to control illegal immigration, especially the lack of strong measures to stop it from the traditional parties (Figure 4):

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[11] In English: "immigrants, spain, immigration, illegals, country, spanish [masculine plural], party, pp, muslims, government, andalusia, women, black, europe, expel, foreigners, vote, islam, program, melilla."

[12] In English: "immigrants, spain, country, spanish [masculine plural], illegals, women, muslims, benefits, moors, europe, immigration, islam, religion, foreigners, muslim, shit, law, rights, culture, male chauvinists."

[13] In English: "spain, country, immigrants, fucking [masculine plural], shit, ass, moors, cunt, muslims, fucking [masculine singular], whore/fucking [feminine singular], girls, sons, garbage, rapists, immigration, spanish [masculine plural], clean, offenders, riffraff."
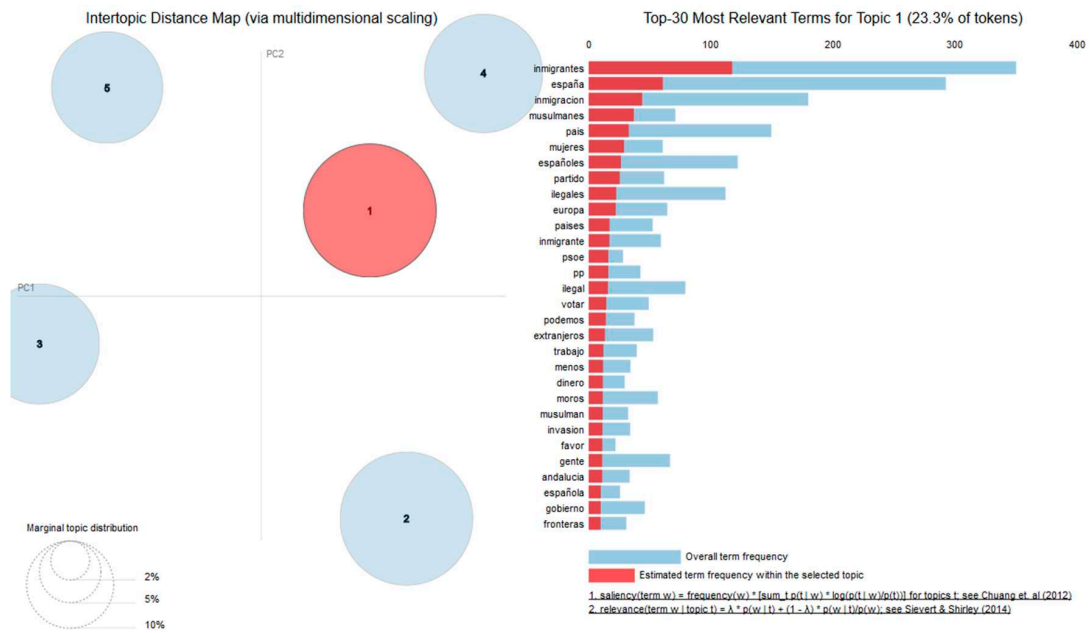
Figure 4. Interactive map of topic 1, ƛ= 1.

1 ('0.021*"inmigrantes" + 0.011*"españa" + 0.008*"inmigracion" + 0.007*"musulmanes" + 0.006*"pais" + 0.005*"mujeres" + 0.005*"españoles" + 0.004*"partido" + 0.004*"ilegales" + 0.004*"europa" + 0.003*"paises" + 0.003*"inmigrante" + 0.003*"psoe" + 0.003*"pp" + 0.003*"ilegal"').[14]

Topic 2: Economic assistance to immigrants. This approaches the alleged frauds of immigrants when obtaining economic support from public institutions, as well as their advantages compared to Spanish citizens (Figure 5):
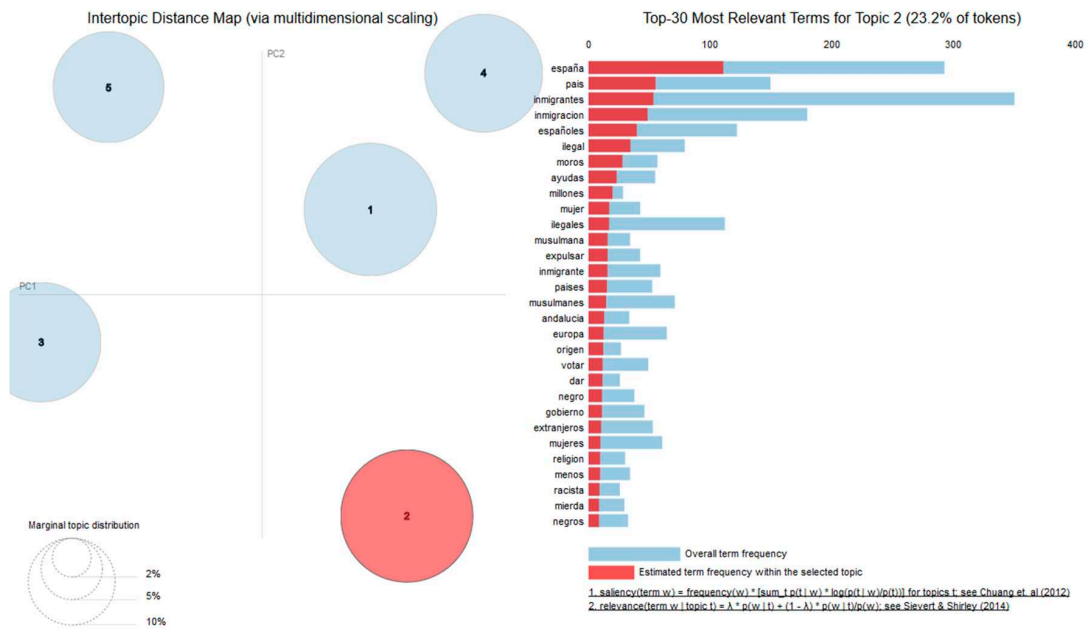

Figure 5. Interactive map of topic 2, ƛ= 1.

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[14] In English: "immigrants, spain, immigration, muslims, country, women, spanish [masculine plural], party, illegals, europe, countries, immigrant, psoe [Spanish Socialist Party], pp, illegal."

2 ('0.020*"españa" + 0.010*"pais" + 0.009*"inmigrantes" + 0.009*"inmigracion" + 0.007*"españoles" + 0.006*"ilegal" + 0.005*"moros" + 0.004*"ayudas" + 0.003*"millones" + 0.003*"mujer" + 0.003*"ilegales" + 0.003*"musulmana" + 0.003*"expulsar" + 0.003*"inmigrante" + 0.003*"paises"').[15]

Topic 3: Consequences of illegal immigration. The focus is on the negative consequences that illegal immigration has for the Spanish population (Figure 6):
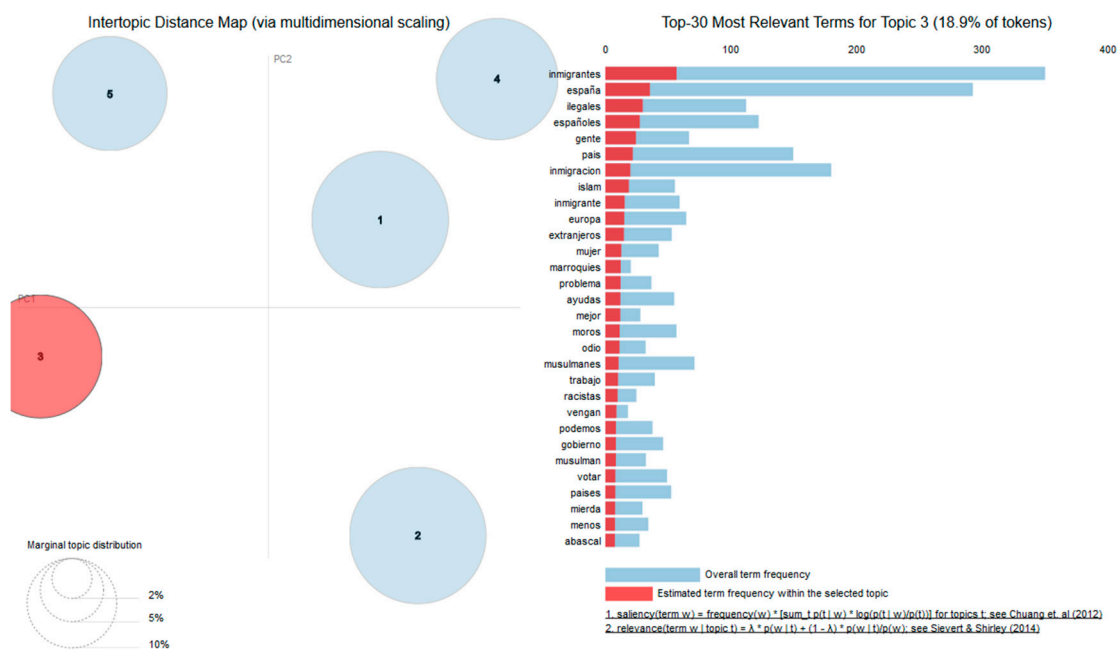

Figure 6. Interactive map of topic 3, λ = 1.

3 ('0.012*"inmigrantes" + 0.008*"españa" + 0.006*"ilegales" + 0.006*"españoles" + 0.005*"gente" + 0.005*"pais" + 0.004*"inmigracion" + 0.004*"islam" + 0.003*"inmigrante" + 0.003*"europa" + 0.003*"extranjeros" + 0.003*"mujer" + 0.003*"marroquies" + 0.003*"problema" + 0.003*"ayudas"').[16]

Topic 4: Spain as the entrance of African immigrants to Europe. This focuses primarily on the arrival of African immigrants to the Southern border of Spain, especially in the city of Melilla in the Northern coast of Africa (Figure 7):

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[15] In English: "Spain, country, immigrants, immigration, spanish [masculine plural], illegal, moors, benefits, millions, woman, illegals, muslim [feminine singular], expel, immigrant, countries."
[16] In English: "immigrants, spain, illegals, spanish [masculine plural], people, country, immigration, islam, immigrant, Europe, foreigners, woman, Moroccan [masculine plural], problem, benefits."
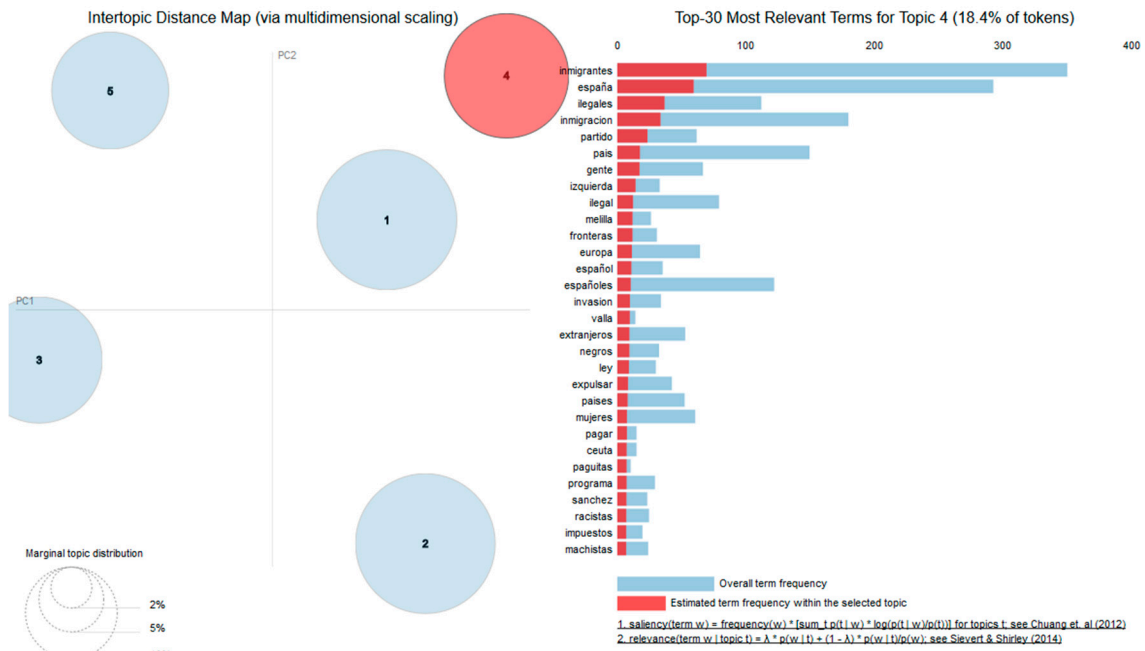
Figure 7. Interactive map of topic 4, ƛ= 1.

4 (1, '0.015*"inmigrantes" + 0.013*"españa" + 0.008*"ilegales" + 0.008*"inmigracion" + 0.005*"partido" + 0.004*"pais" + 0.004*"gente" + 0.003*"izquierda" + 0.003*"ilegal" + 0.003*"melilla" + 0.003*"fronteras" + 0.003*"europa" + 0.002*"español" + 0.002*"españoles" + 0.002*"invasion"').[17]

Topic 5: Islamist terrorism. This topic focuses on the association of terrorism with Islam or with Muslim immigrants or people from Muslim countries or backgrounds (Figure 8):

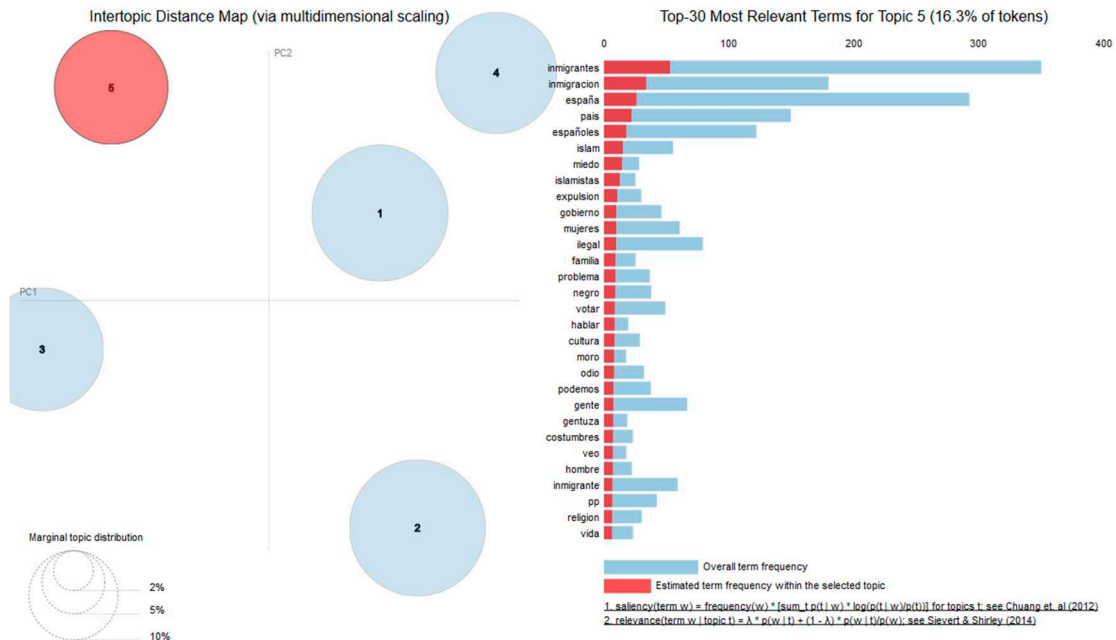**Figure 8.** Interactive map of topic 5, ƛ= 1.

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[17] In English: "immigrants, spain, illegals, immigration, party, country, people, left, illegal, melilla, borders, Europe, Spanish [masculine singular], spanish [masculine plural], invasion."

5 (0, '0.013*"inmigrantes" + 0.009*"inmigracion" + 0.007*"españa" + 0.006*"pais" + 0.005*"españoles" + 0.004*"islam" + 0.004*"miedo" + 0.003*"islamistas" + 0.003*"expulsion" + 0.002*"gobierno" + 0.002*"mujeres" + 0.002*"ilegal" + 0.002*"familia" + 0.002*"problema" + 0.002*"negro"').[18]

5. Discussion of Results and Conclusions

As expected, the distribution of the different types of hate speech against immigrants follows a pyramid shape, from the most common offenses against the feelings, with 1026 tweets and 56% of this subsample; through the incitement of discrimination, hate, and the restriction of rights, with 757 messages and 42% of the subsample; finally to the direct incitement or glorification of violence, with 42 messages and only 2% of the subsample. This agrees with the distribution observed in previous studies, such as Miró (2016), in which only 2% of the original sample collected using hashtags after the Charlie Hebdo attacks in Paris in 2015 included hate speech expressions, and from those, the distribution also followed a pyramid, from the least to the most harmful.

In total, we observed that 1% of the discussion surrounding Vox during the six months analyzed contained hate speech against immigrants. This does not indicate that 1% of the messages produced by Vox or its supporters included some form of hate speech against immigrants. First, because not all the conversation *around* Vox is produced solely *by* Vox and its followers, but also by the media and by citizens talking about the party; second, because there can be expressions of hate speech against immigrants that are not produced by Vox or its followers, but in which the party is mentioned for different reasons; and third, because Vox or its followers might produce hate speech against immigrants without mentioning the name of the party in the text of the tweet or in other fields of the track of the tweet. At the same time, those 244,095 messages collected with the term 'Vox' also included other topics discussed around Vox discourse—the economy, social protection, fight against criminality, etc.—without relation to immigration or without including hateful expressions.

Similarly, although in a very small amount, other messages might have included the term 'Vox' in another context; for example, typos using the word "voz,"[19] the Latin expression *vox populi*, or a brand of dictionaries also named Vox. As a conclusion of this aspect, we can affirm that around 1% of the conversation that mentioned Vox included hate speech against immigrants, but not that 1% of the discourse produced by the party, its leaders, and its followers does; future studies will be needed to determine if that proportion is bigger or smaller.

This approach of the study also showed the need to continue researching different forms of hate speech around this far-right party, as a stronger relevance of other topics, such as Catalonia's independency or the management of the COVID-19 crisis by the Government, could be expected, which might modify the proportion of hate speech against immigrants in Vox's discussion on Twitter. Thus, the volume of hate speech against a particular group may have increased or decreased, particularly, because it has been observed that online hate speech can be intensified on social media after high-impact events, such as a terrorist attack or news with the presence of disadvantaged or denigrated groups of the population (Awan and Zempi 2015; Awan 2014). In this line, a complementary study of the spikes and troughs in hate speech prevalence coinciding with the events presented along the period of study would have been interesting, and this will be developed in future works; however, given the focus of the study in the features and topics of this discourse rather than in the amount or evolution, it was not included at this time.

The features and topics of this type of hateful discourse tend to be stable over time, which suggests that the answers of our research questions will remain valid for a long period of time, even as

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[18] In English: "immigrants, immigration, spain, country, spanish [masculine plural], islam, fear, islamists, expel, government, women, illegal, family, problem, black."

[19] In English: "voice."

hate speech against immigrants might gain or lose presence. Therefore, in general terms, the study confirmed what previous studies have already pointed out, that anti-immigration nationalist discourses are closely associated to this far-right party, as observed by Ferreira (2019) and that the features of hateful contents go from (the more or less harmless) offensive language, as studied by Davidson et al. (2017), to public and direct incitements to violence that already constitute a crime by themselves.

The second research question regarding the topics underlying these discourses was answered using a computational approach. The results of the distribution of frequencies and the five topics that were modeled demonstrated the presence of the main elements that build and explain hate speech against immigrants in the discourse around Vox on Twitter. These topics, which include the expulsion of illegal immigrants from Spain, the removal of public benefits for immigrants, and the "invasion" coming from the North of Africa, relate closely to the anti-immigration discourse of Vox, and are consistent with the broader analysis of hate speech or rejection toward immigration on Twitter in Spain.

This study, combining NLP and LDA topic modeling, offers a complete analysis of the discourse of hatred against immigrants, going further than the studies focused on just one technique, such as that of Schmidt and Wiegand (2017), which focused on NLP. Due to this approach, we observed that Muslim immigrants were frequently the victims of hate speech, as the presence of a topic focused on them supports, which agrees with the Islamophobic condition of this party (Gould 2019). The consideration of this religion as barbaric or misogynist is a common way to justify the rejection and hate toward this collective.

We also commonly discovered distasteful or obscene expressions in much of the content, as these expressions were used to stigmatize or hurt the feelings of immigrants. We also found expressions demanding discrimination or the restriction of rights, such as the reduction or removal of public support for these collectives. This connection of immigrants with their cost to public money was also found in the study that Arcila-Calderón et al. (2020) conducted regarding the reasons for the rejection of migrants and refugees in Twitter messages in Spain. Additionally, the use of lies or untrue generalizations or stereotypes regarding the public benefits that immigrants receive was common, something that previous works also observed, connecting this party with disinformation campaigns (Hernández Conde and García 2019).

As a limitation of the study, the poor grammar of some of the messages made the study of frequencies and the topic modeling less accurate. The analysis of only one social media platform, Twitter in this case, although justified and common to many previous studies, makes it impossible to generalize the observations to the offline construction of hate speech against immigrants and the public discussion around Vox outside of Twitter; however, the relevance of this medium and the discoveries about the topics and terms that define hate speech against immigrants makes it useful for designing techniques to analyze and combat this form of hateful discourse.

One of the main contributions of the article was precisely to dig into the features and topics behind hate speech, complementing previous works in the Spanish context (Miró 2016; Gallego et al. 2017) and to apply novel computational methods that have not been broadly applied toward this goal. Regarding the use of these techniques, particularly topic modeling, even when this method is frequently used in larger texts, the co-occurrence of words offers better results in larger contents. The topics detected in tweets offered good exploratory results to discover the characteristics of hate speech against immigrants taking place in the Twitter content surrounding Vox.

Despite the use of these two novel techniques, other methods that could have been complementary, such as an n-gram analysis to study the interrelation and overlaps of the most frequent terms, are not present in this article. This technique, already proven useful by previous works (Burnap and Williams 2015), will be applied in the future so that a more detailed effort can be conducted.

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Article

Impact of Trump's Digital Rhetoric on the US Elections: A View from Worldwide Far-Right Populism

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Abstract: A time of turmoil and uncertainty is invading the public sphere. Under the framework of the 2020 US elections, populist leaders around the world supported Trump's speech on Twitter, sharing a common ideology and language. This study examines which issues (issue frame), and strategies (game frame) framed the messages of populism on Twitter by analyzing the equivalences through Trump's storytelling and checking the bias of the media in the coverage of the US elections. We selected a sample of tweets ($n = 1497$) and digital front pages of global newspapers ($n = 112$) from the date of the Trump/Biden face-to-face debate (29 September 2020) until the Democratic party candidate was proclaimed the winner of the elections by the media (7 November 2020). Using a content analysis method based on triangulation (quantitative and qualitative-discursive), we analyzed the Twitter accounts of five leaders (@realDonalTrump, @MLP_officiel, @matteosalvinimi, @Santi_ABASCAL, and @Jairbolsonaro) and five digital front pages (*The New York Times*, *O Globo*, *Le Monde*, *La Repubblica,* and *El País*). The results show that populist politicians reproduced the discourse of fraud and conspiracy typical of Trump's politics on Twitter. The negative bias of the media was also confirmed, giving prominence to a rhetoric of disinformation that overlaps with the theory of populism.

Keywords: political populism; Trump; Twitter; elections; United States; polarization; disinformation; legacy media; voters

1. Introduction

The impact of the last United States (US) presidential elections on world geopolitics were unprecedented. The face-to-face debate between Donald Trump and Joe Biden as candidates was the starting point of a campaign marked by polarization and conflict (Neudert and Marchal 2019). The assault on the Capitol (January 2021), carried out by extremist groups linked to the Republican party (The New York Times 2021), and the judicial impeachment process against Trump (February 2021) are consequences of populist rhetoric that mobilized citizens through social networks.

In the context of a global institutional crisis of democracy (Levitsky and Ziblatt 2018), reinforced by the breakthrough of COVID-19, some authors sought to find causes in factors such as platformization (Smyrnaios and Rebillard 2019) or the lack of regularization of data brokers. Algorithms and bots are used for manipulation and computational propaganda (Woolley and Howard 2017). This practice fosters the uncontrolled dissemination of fake news in political processes (Powers and Kounalakis 2017). In line with this premise, social media contribute to the spread of disinformation (Rivas-de-Roca et al. 2020), but it is also necessary to consider other variables, such as the influence of populism, assessed as a persuasion tool through language (Fuentes Rodríguez 2020).

The 2016 electoral campaign in the US already provided evidence on Trump's effectiveness at carrying out storytelling through Twitter-based strategies of far-right populism (Pérez-Curiel and Limón-Naharro 2019). He developed an opposite position to globalization, integration, and establishment policies (Mudde 2016), supranational entities such as

the European Union (Mammone 2009), and immigrants, refugees, and the Muslim culture (Wodak 2015; Fuchs 2017). In the 2020 elections, leaders of populist parties in Europe and around the world retweeted Trump's messages on their Twitter accounts. Marine Le Pen (France), Matteo Salvini (Italy), Santiago Abascal (Spain), and Jair Bolsonaro (Brazil) concurred with Trump's theories of conspiracy and fraud (Fajardo-Trigueros and Rivas-de-Roca 2020), denying the legitimacy of the election results. Some of the leaders belong to different political families, but they have in common an aggressive rhetoric defending the interests of the "people" against the elite (Acemoglu et al. 2013).

A scenario where there is a great level of disinformation was generated. International organizations (European Commission 2018), together with social platforms (Facebook, Google, and Twitter), warned of a problem which, in 2018, was considered a threat to democracy by 83% of Europeans. They were highly concerned about the increase in online fake news during electoral periods (EUvsDisinfo 2018). As public opinion polls confirm, "6 out of 10 Americans believe that Biden legitimately won the election. But 7 out of 10 Republicans affirm that he was not legitimately elected" (Washington Post-ABC 2020). This is an indicator of distrust of voters towards institutions (Waisbord 2018).

As an open research question, we seek to know the narratives used by populist leaders. Bearing this in mind, it is also essential to check the practices of the media. Far from fighting disinformation, press coverage showed elements of fallacy and propaganda typical of far-right populism (Carlson 2017; Bennett and Pfetsch 2018), specifically by applying a critical bias to politicians. The objective of this study was to determine the impact and influence of Trump's speech during the US elections on the leaders of extreme right-wing populism countries, analyzing their issues (issue frame), strategies (game frame), and rhetorical marks of disinformation. We also explore the information bias of the press in each country based on the selection of topics and the journalistic treatment of tweets published by the leaders. The focus on right-ring populism is based on its huge use of social media and the impact on the public sphere (Bimber and Gil de Zúñiga 2020).

2. Theoretical Framework

2.1. Pro-Trump Populism. Leader Digital Rhetoric Supporting the Fraud

The rise of populism in Europe and Latin America has occurred as a consequence of the crisis of liberalism (Nye 2017). Representative democracy may face a serious risk of decline. This idea is endorsed by the increasing level of support for authoritarian regimes. Citizens do not consider the democratic system positive or desirable (Foa and Mounk 2016). The weakness of parliamentarism (Kelsen 2005) highlights the inability to react to the effects of extreme populism at the political level (The Guardian 2019) with a relevant presence of the most conservative positions (Bevelander and Wodak 2019).

Against this backdrop, European extreme right-wing populisms, represented by Matteo Salvini (Northern League), Marine Le Pen (National Rally), and Santiago Abascal (Vox), are examples of success in both the national and European elections. Their policies do not identify with traditional populism but with the so-called "post-industrial" populism, which is not linked to fascist positions, being proponents of a new agenda (Ignazi 2006). Some key characteristics of these leaders are that they have xenophobic, protectionist, and nationalist values as well as criticism of traditional elites. Indeed, the Le Pen phenomenon happened before Trump's victory in 2016, showing the early consolidation of populism in Europe. Regarding Latin America, the rise of violence, impunity, and corruption interfere with social order and create a feeling of insecurity among citizens (Serrano Rodríguez 2019). The rise of populist policies is fueled by a time of uncertainty and growing distrust in traditional politics (Acemoglu et al. 2013).

Specifically, in the US, a climate of polarization (Graham et al. 2013), pop-politics (Baym 2010), and social chaos (Waisbord 2018) existed from the start of the 2020 campaign. There was a macro-strategist leader who undermined the legitimacy of traditional parties and governments and promoted disinformation on social media. As in the 2016 presidential elections, Trump stood out for his constant appeal to emotional feelings, xenophobic

statements against minorities (Fuchs 2017), and nationalist domestic and foreign policies (Ramírez Nárdiz 2020).

Behind his simple and repetitive language, a strategy of fraud emerges. Trump represents worldwide populism defined by a first-person narrative. This can be seen in discursive antagonism shared against the other, conspiracy theories, and an emphasis on the homeland (*America First*). Populist leaders draw a convergent line with Donald Trump's strategies and language. A sizable body of literature has problematized the promotion of antipluralism (De la Torre 2010) and the management of public emotions (Beckett and Deuze 2016) related to this global trend. These populist politicians have criticized the legacy media and labeled them as antagonists (Waisbord and Amado 2017), eroding independent journalism and democracy (Pérez-Curiel 2020). These populist politicians have used social media channels like Twitter to criticize the contents of legacy media.

Twitter is a key social network of non-mediated communication that allows direct contact with people and avoids the traditional media, who are labeled as conventional "elites" (van Kessel and Castelein 2016). In this sense, an alternative non-mediated agenda is developed (Enli 2017), increasing interaction with citizens (Rúas Araújo et al. 2018). Populist leaders focus more on opinions than facts, making extensive use of the cyber-rhetoric for the purpose of achieving votes (Stromer-Galley 2014). This practice comes from populist theory and undermines the political establishment (Engesser et al. 2017), mobilizing citizens against the system (Crilley and Gillespie 2019). However, populism with decision-making power is different from the populist leaders that try to achieve parliamentary representation. The aggressiveness of the rhetoric is higher in the latter, having both a permanent-campaign style (Maatsch 2021).

Interestingly, Twitter also boosts fake news and the spreading of hate speech (Bimber and Gil de Zúñiga 2020; Bracciale and Martella 2017). Individuals take advantage of social networks to promote machismo, homophobia, xenophobia, Islamophobia, anti-Semitism, and other forms of intolerance, making them seem acceptable (Colleoni et al. 2014). These strategies intensify the spread of disinformation, propaganda, and hoaxes (Salaverría et al. 2020), opening a debate on the role of the media in verifying facts.

2.2. US Election Narrative in the Media. Convergence with Far-Right Populism

In a context affected by COVID-19, citizens are facing a social situation of chaos, anxiety, and confusion, which has increased interest in consuming news through social media (Newman et al. 2020). At the same time, the public's distrust of elites and the media is a political trend (Shearer and Gottfried 2017). This phenomenon is also associated with the growth of alternative sources of information linked to populism and the far-right movements (Bennett and Livingston 2018).

The role of the media in the coverage of the US elections validates the principles of the first- and second-level agenda-setting theory (McCombs 2005). The media decide the issues and also evaluate the substantive dimension (ideology, position of the candidate, qualification, and personality) and affective dimension (positive, neutral, or critical opinion of the facts). At electoral stages, they prioritize news related to a candidate's strategies (game frame) over the topics of the political program (issue frame). Furthermore, there is a growing level of personalization, progressive negativism, and a news narrative related to feelings ahead of rational argumentation (Marzal-Felici and Casero-Ripollés 2017).

As previously described, the main candidates of far-right international populism broke into the social networks supporting Trump's denialist and conspiracy theories. They alluded to immigration, foreign affairs, and environmental or gender issues in a context marked by the pandemic. Along with this, the websites of media outlets such as *Le Monde*, *O Globo*, *La Repubblica*, and *El País* devoted more space to issues related to the Trump fallacy than to the rest of the news. Thus, these media deviated from reporting responsibly and carrying out their role as generators of public opinion (Casero-Ripollés et al. 2017). The national and international press acted in a double sense: it either presented a provocative, offensive, and uncivil discourse around Trump and the populist leaders on

Twitter (Ott 2017) or refuted disinformation with well-contrasted news (Mantzarlis 2018; Vázquez-Herrero et al. 2019).

Moreover, information bias in the newspapers should be kept in mind. Leaders' confrontation with the media is a characteristic of populist policies, especially in the case of Donald Trump. In the 2016 campaign, the digital front pages of *USA Today*, *The Boston Globe*, *The Wall Street Journal*, and *The New York Times* already showed indications of the attitude of a sector of the Republican and Democratic media towards this political figure and his discourse of infotainment (Pérez-Curiel and Limón-Naharro 2019).

Our research aims to investigate the issues and brands related to the populist discourse based on an analysis of Twitter and media coverage. To do this, we pose three research questions:

RQ1: *Which themes and strategies of far-right populism can be identified in the speech of Trump and other populist leaders on Twitter?*
RQ2: *Is disinformation a characteristic of the messages posted by politicians on Twitter?*
RQ3: *Do the media show an information bias in the treatment of the issues published by populist leaders on Twitter?*

3. Method

3.1. Sample Procedure

Data from this study were obtained using a triangulated method. A quantitative and qualitative-discursive content analysis (Bardin 1977; Manfredi-Sánchez et al. 2021) was applied to the tweets of political leaders and the front pages of newspapers. The reason for this multimodal approach lies in the consolidation of a hybrid communication model between digital and legacy media (Chadwick 2017), including Twitter as a source for the media system (Justel-Vázquez et al. 2018; Hermida and Mellado 2020).

Populist politicians develop their own style in social networks to spread their ideologies in a fragmented way (Block and Negrine 2017; Engesser et al. 2017) based on the identification of enemies, such as migrants, who must be fought (van Kessel and Castelein 2016; Arcila-Calderón et al. 2020). Consequently, our methodological proposal was designed to analyze the Twitter profiles of Donald Trump and four others widely recognized populist leaders, making it possible to compare America and Europe.

We focused on Twitter because of its advantages for political communication in elections (Gainous and Wagner 2014; D'Heer and Verdegem 2015). Indeed, the 2008 and 2012 US elections showed interesting benefits of the Internet in terms of the stability of democracy, which were put into question by the use of Twitter in 2016 (Campos-Domínguez 2017). Taking into account these milestones, the details of the sample of populist profiles on Twitter are now exposed:

- Donald Trump (United States), @realDonaldTrump (unique account in English);
- Jair Bolsonaro (Brazil), @jairbolsonaro (unique account in Portuguese);
- Marine Le Pen (France), @MLP_officiel (unique account in French);
- Matteo Salvini (Italy), @matteosalvinimi (unique account in Italian);
- Santiago Abascal (Spain), @Santi_ABASCAL (unique account in Spanish).

In addition to the issues and discursive elements of the messages published by these politicians on Twitter, our analysis considered their concordance with topics on the front pages of newspapers, since recent research has outlined the impacts of tweets in traditional media (Rúas Araújo et al. 2018; Pérez-Curiel and Limón-Naharro 2019). Furthermore, the polarization on Twitter around controversial topics for right-wing populism, such as climate change, could influence public opinion (Moernaut et al. 2020).

Hence, a newspaper was selected for each country, considering circulation rates according to data from the World Association of Newspapers and News Publishers (WAN-IFRA). The sample was composed of *The New York Times* (United States), *O Globo* (Brazil), *Le Monde* (France), *La Repubblica* (Italy), and *El País* (Spain). These were used to conduct a comparative analysis of different media systems, and the focus was expanded by including

Brazil, which is outside the Western world, as suggested by the authors of the theory (Hallin and Mancini 2017).

To assess the similarities and differences between Trump's speech and the narrative of the populist leaders, we used a data collection period from 29 September to 8 November 2020, that is, 40 days. The reason for setting 29 September as the beginning is that, on that date, the first TV electoral debate between Biden and Trump was held, marking the beginning of the campaign. The end date refers to the day after the winner of the elections was known, which allowed us to consider possible reactions (Rivas-de-Roca et al. 2020). Post-electoral surveys from traditional media outlets, such as CNN (2020) and NBC (2020), showed a great thematic division of US voters on major national issues. It was therefore of interest to investigate the reactions of citizens to the results.

The sample included all of the tweets published by the leaders selected during the defined electoral period, as well as the front pages of national newspapers in which information about these elections appeared. This research studied their own tweets and the candidates' responses, but not the retweets, since they included information published by other sources that were not necessarily linked to the agenda of each leader (Larsson and Ihlen 2015; Casero-Ripollés et al. 2017). The sample was captured through Twitonomy and the websites of the newspapers and was subsequently analyzed with SPSS statistical software. In total, 1497 publications on Twitter and 112 front pages in the digital press were collected.

3.2. Issue and Game Frame Variables: Issues/Strategies and Propaganda Mechanisms

Our research sought to identify the interactions between politicians, media, and citizens, which are presented as clearly endogamous, tending towards the creation of echo chambers, in the literature (Colleoni et al. 2014; Guerrero-Solé 2018). Populist figures can act as opinion leaders in classical conception (Katz and Lazarsfeld 1955), using identity building, a cyber-rhetoric (López-Meri 2016), and their relationships with the media as principles of action (Block and Negrine 2017). Thus, the following quantitative/qualitative worksheet was developed (Table 1) to join the thematic and strategic content analysis with the use of language:

Table 1. Contingence quantitative/qualitative variables.

Twitter and legacy media	Tweets from populist leaders	Evaluative and formal indicators	Theme (issue frame)	Strategy (game frame)	Language (fallacy/propaganda)
	Front pages on which these leaders appeared				

Regarding the assessment of the content, a quantitative analysis was used, which allowed us to investigate the items that made up the messages in depth (Neuendorf 2002; Krippendorff 2012). This method has been adapted to social networks such as Twitter by some authors (Fernández Crespo 2014). Our study focused on the thematic agenda (issue frame) and the tools for obtaining votes (game frame) since they are the two principal frames of current political communication (Aalberg et al. 2017; Alonso-Muñoz and Casero-Ripollés 2020).

Therefore, a specific analysis worksheet with exclusive categories was used to analyze the tweets (Table 2). The aforementioned issue frame/game frame theories were considered (Aalberg et al. 2017; Cartwright et al. 2019) to assess the use of agendas and strategies and observe their effects on audiences. The genesis of populist discourse is increasingly being linked to platformization and computational propaganda (Arcila-Calderón et al. 2020).

Table 2. Categories used for the quantitative study of the agenda on Twitter.

	Items	Description
Issue frame	Conspiracy theories	Tweets regarding possible conspiratorial explanations for social problems, such as those mentioning George Soros.
	Immigration/security	Tweets that connect immigration to citizen security issues.
	Corruption	Tweets related to malpractices by traditional political authorities.
	Gender issues	Tweets on gender issues to criticize equality policies.
	COVID-19	Tweets on the COVID-19 pandemic as a singular matter of public interest.
	Environment	Tweets that refer to environmental issues, usually from a denial approach.
	Foreign affairs	Tweets on international affairs, such as trade or relations between countries.
	Economy	Tweets on economic issues, such as unemployment, subsidies, or industry.
Game frame	Horse race and governing frame	Tweets that refer to opposing positions, post-electoral pacts, or government strategies.
	Politicians as individuals' frames	Tweets that mention aspects of the personal lives of populist leaders.
	Political strategy frame	Tweets on political events, such as electoral debates or meetings with citizens.
	News management frame	Tweets related to the media, such as interviews to the candidate or the existence of discrepancies with a journalistic work.
Other	Unclassifiable tweet in the previous categories	

Regarding the discursive analysis (van Dijk 2008), a range of categories on political language was used, applying a classification of fallacies and propaganda mechanisms, as follows:

- Appeal to authority;
- Appeal to emotion;
- Fallacy against the man;
- Appeal to force;
- Appeal to ignorance;
- Attributions;
- Tendentious claims;
- Emphasis;
- Stereotypes;
- False analogy;
- Speaking through other sources;
- Opinions as facts;
- Selecting information;
- Use of labels.

In recent years, the amount of hate speech on the Internet has increased (Bartlett et al. 2014), encouraging studies to delve into the linguistic building of messages (Schmidt and Wiegand 2017). The mentioned categories of fallacies and propaganda mechanisms were studied with a critical discourse analysis (Flowerdew and Richardson 2017), something that has already been used in previous research on populism (Alonso-Muñoz and Casero-Ripollés 2020).

The whole analysis was carried out manually by the authors. We chose IBM SPSS Statistics, Version 25, as the statistical software to process the data. The intercoder agreement was calculated with Scott's Pi formula, reaching an acceptable error level of 0.96. Two previous rounds of coding training, of 5 days each one, were held; meanwhile, control variables were not applicable. The method suits very well for nominal data in communication studies, allowing us to study the agendas and propaganda mechanisms presented in the sample.

4. Results

4.1. Description of the Sample

The sample used in this research was composed of 1497 tweets, divided as follows: Salvini 845 (56.2% of the total), Trump 237 (15.8%), Bolsonaro 217 (14.5%), Le Pen 131 (8.75%), and Abascal 67 (4.8%). Therefore, the data outline the overactivity of Salvini that is relevant. This means that the figures for the total sample are not very useful, as they over-represent the Italian. Instead, meaningful comparisons can be drawn between the profiles.

As for the front pages, the sample was small (*n* = 112), as expected, but it did allow us to correlate the occurrence of the elections in the United States with populist activity on Twitter. The frequencies were as follows: *New York Times* = 37, *O Globo* = 29, *Le Monde* = 9, *La Repubblica* = 18, and *El País* = 19. It was observed that the great level of activity of Salvini on Twitter did not correspond with his appearance in the newspaper selected from his country (*La Repubblica*), which suggested that other journalistic factors should be considered. However, the reference to the US elections was very common in the 40-day period analyzed, as seen in Figure 1.
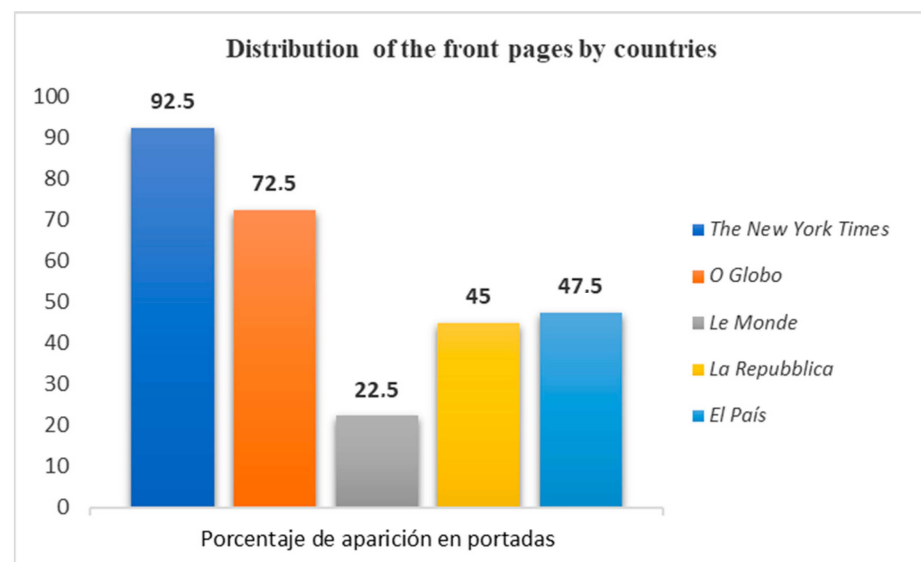
Figure 1. Comparison of references to the US elections on the front pages (%).

We find that the *The New York Times* covered the elections on 92.5% of its front pages, which can be explained by the fact that the electoral contest was taking place in this country. It is more surprising that other reference media worldwide gave so much space to this matter. This first finding shows the media relevance of the US campaign in the mainstream press, revealing its usefulness in defining a global populist policy.

4.2. Strategy and Propaganda on Twitter

The analysis of the thematic and strategic agendas of these leaders on Twitter provides interesting data that show the similarities and divergences in their communication practices. First, Salvini and Abascal displayed relatively fragmented agendas with some points in common. Both used a wide variety of topics, with COVID-19 and security and immigration being the most commonly mentioned issues. There was also a plurality of frames in relation to strategies, although the dispute approach (horse race) was the most commonly applied in both cases (Table 3).

Table 3. Distribution of tweets according to topics and strategies (%). * The most outstanding figures are presented in bold, since they show relevant trends.

		Donald Trump	Jair Bolsonaro	Marine Le Pen	Matteo Salvini	Santiago Abascal
Issue frame	Conspiracy theories	4.7	1.9	-	2	10.4
	Immigration/security	3	3.2	**39.7**	**23**	**13.4**
	Corruption	**47.5**	2.3	-	0.5	3
	Gender issues	-	-	1.5	1.2	-
	COVID-19	5.5	3.7	**15.3**	**15**	**16.4**
	Environment	-	3.2	3.1	1.4	-
	Foreign affairs	0.8	5.1	13	5.4	7.5
	Economy	0.8	**18.5**	10.7	7.2	1.5
Game frame	Horse race and governing frame	**19.9**	**27.8**	2.3	**7.2**	**10.4**
	Politicians as individuals' frames	1.7	1.4	**9.9**	7.1	7.5
	Political strategy frame	5.1	**23.1**	1.5	7.1	6
	News management frame	1.7	5.6	3.1	4	3
	Other	9.3	4.2	-	18.8	20.9

The preference for this confrontational setting was also the case for Bolsonaro (27.8%) and Trump (19.9%), and in the North American case, this reflected the conflictive character that the electoral campaign acquired. The results suggest that the horse race approach was a priority element for most of the populist leaders in the sample. The exception was Le Pen, who showed a low level of use of this frame, placing personal issues first in her communication strategy.

The use of game frames, particularly the horse race and governing frame, was revealed as being a common characteristic of global populism. Meanwhile, the use of thematic frames was much more distributed and linked to geographical contexts. It is noteworthy that the three European leaders (Abascal, Salvini, and Le Pen) coincided in prioritizing COVID-19 and security and immigration as topics, which shows their relevance to EU politics. Le Pen again displayed a differential view since she concentrated her agenda more, focusing on immigration and security items (39.7%). This may be due to the importance of these aspects in French public opinion.

Moreover, Trump and Bolsonaro ignored COVID-19, probably because it was an issue that had the potential to harm them as heads of government. Bolsonaro granted a huge amount of space to the economy (18.5%) in an attempt to claim his achievements and face criticism about the management of the pandemic. For his part, Trump focused his thematic speech on corruption (47.5%), that is, on the possibility of an electoral fraud that would modify the results. This idea was central to Trump's actions during his campaign on Twitter, which helps us to understand why a large portion of Republican voters believed in his victory after he lost the election (Washington Post-ABC 2020; Pew Research Center 2020).

Beyond the fact that conflictive frames are commonly used in populist tweets (Figure 2), the use of discursive propaganda mechanisms also seems to be frequent. Appeal to emotion (15.6%) and the presentation of opinions as facts (14%) were the most common practices identified in the sample as a whole. These records show the existence of a narrative based on false messages that seek to manipulate the audience (Table 4).

Figure 2. Tweet from Bolsonaro using the horse race frame.

Table 4. Propaganda mechanisms on Twitter (%). * The most outstanding findings are presented in bold, since they show relevant trends.

	Donald Trump	Jair Bolsonaro	Marine Le Pen	Matteo Salvini	Santiago Abascal	Total
Appeal to authority	1.7	3.2	3.1	5.2	6	4.2
Appeal to emotion	**15.2**	6.9	**49.6**	**13.2**	9	**15.6**
Fallacy against the man	0.8	3.2	-	2.2	9	2.3
Appeal to force	6.3	0.5	2.3	7	**17.9**	6
Appeal to ignorance	4.6	2.8	-	1.2	6	2.1
Attributions	2.5	**29.6**	0.8	8.9	**10.4**	10.2
Tendentious claims	2.5	2.8	-	0.5	3	1.2
Emphasis	5.1	0.5	14.5	**13.8**	7.5	10.3
Stereotypes	-	0.5	1.5	3.6	1.5	2.3
False analogy	3	-	-	3	4.5	2.3
Speaking through other sources	11.8	4.2	-	11.8	-	9.2
Opinions as facts	11.8	**38.9**	0.8	5.9	**10.4**	**14**
Selecting information	**16**	6	27.5	7	9	10.2
Use of labels	1.7	-	-	6.6	6	4.3
Other	-	0.9	-	10.1	-	5.8

For Trump, the aforementioned practices were complemented by information selection (16%) and speaking through other sources (11.8%). Thus, there was evidence of manipulation of messages using biased data based on others to criticize competitors. Trump's actions were quite similar to the rest of the populist leaders since he placed great importance on the appeal to emotion (15.2%) and opinions as facts (11.8%). This implies that he spread clearly false tweets, such as those launched after the elections denouncing electoral fraud without any type of proof (Figure 3).

The other populist leaders also showed interesting divergences, although most of them shared the application of emotions and opinions. For instance, Bolsonaro frequently presented opinions as facts (38.9%) as well as attributions (29.6%). The latter are common in game frame approaches since they emphasize the successes and failures of political actors. Le Pen showed a strong preference for information selection (27.5%) and appealing to emotion (49.6%). These two practices were also carried out by Trump. It must be noted that Le Pen is the only leader who rarely published opinion-based messages as factual (0.8%).

Figure 3. Tweets from Trump appealing to emotion and stating opinions as facts.

With regard to Salvini, he used many propaganda resources involving all of the mechanisms mentioned. Within this fragmented strategy, the Italian leader prioritized emphasis (13.8%) and classic appeal to emotion (13.2%). In contrast, Abascal was the politician in this research who presented differential behavior. Appeal to force (17.9%), typical of the militaristic environment that surrounds his party, and attributions (10.4%), together with presenting opinions as facts, were found to be his preferred tools.

The sample of tweets analyzed showed the spectacularizing message of populist leaders, which was reinforced many times with propaganda mechanisms. Indeed, the tweets from Trump, Le Pen, and Abascal always used this kind of strategy. Falsehood and emotion were found to work as the basis of these discourses in a common pattern, regardless of national differences. However, these national contexts are relevant to the understanding of adaptions of populism. The preference for opinions instead of facts harms the value of information in a democracy.

4.3. Impact of Populism on Legacy Media

At this point, it is interesting to consider how populist strategies are presented in traditional media. The data show that propaganda resources appeared on the front pages of newspapers (Table 5), although there was not a perfect correlation between the language marks prioritized by politicians on Twitter and those picked up in the media. Meanwhile, appeal to emotion (234 mentions), and the presentation of opinions as facts (210) were the mechanisms preferred by leaders; attributions (16.4%) and information selection (14.7%) were the most commonly used strategies on the front pages.

As can be seen from Table 5, the media prefer to use conflictive approaches such as attributions, which pose a direct confrontation between political actors. In addition, the use of information selection was remarkable, particularly the use of data biased by emotion (5.2%) or opinion (6.9%), which are typical false messages. Although propaganda mechanisms were not fully transferred to the front pages, it is worth emphasizing the great presence of these biased resources in the media (only 8.6% of the front pages lack them), showing the journalistic weight of disinformation in the coverage of the US elections.

Table 5. Propaganda mechanisms. Frequencies of use in tweets/on front pages (%).

	No. of Tweets	% of Mentions in Front Pages
Appeal to authority	63	6.9%
Appeal to emotion	234	5.2%
Fallacy against the man	34	5.2%
Appeal to force	90	6.9%
Appeal to ignorance	31	2.6%
Attributions	153	**16.4%**
Tendentious claims	18	6%
Emphasis	154	6.9%
Stereotypes	34	5.2%
False analogy	35	1.7%
Speaking through other sources	137	0.9%
Opinions as facts	210	6.9%
Selecting information	152	**14.7%**
Use of labels	64	6%
Other	87	8.6%

Nevertheless, in some cases, the tweets published by populist leaders during the US campaign were directly reflected on the front pages (Table 6). The *New York Times*, as the selected media outlet with a high level of reporting on the elections, showed a clear negative information bias (81.7% of the front pages). In other less representative examples, reference to these tweets was either negative (*Le Monde*) or more positive than negative (*O Globo* and *La Repubblica*). However, on average, the analysis of front pages with the presence of tweets reveals a prevalent negative tone (80.4%).

Table 6. Frequencies of tweets on the front pages of different media outlets and message tone (%).

		Positive	Negative	Neutral
Tweets on the front page	*The New York Times*	17.9	81.7	0.4
	O Globo	66.7	-	33.3
	Le Monde	-	100	-
	La Repubblica	100	-	-
	El País	-	-	-
	Total	18.8	80.4	0.8
No tweets on the front page	*The New York Times*	-	-	100
	O Globo	47.9	23	29.1
	Le Monde	11.5	86.2	2.3
	La Repubblica	17.8	64.3	17.9
	El País	16.4	74.6	9
	Total	22.1	60	17.8

A negative approach (60%) was also identified on front pages in which there were no tweets, despite the higher levels of positive (22.1%) and neutral (17.8%) contents. All of these figures show that negative frames were a constant feature of the journalistic treatment of the US elections, especially when the front pages of newspapers were based on populist tweets.

As we previously noted, the negative approach was identified as a priority in *The New York Times*. During the 2020 election campaign, this prestigious media placed messages from Trump that had been broadcasted primarily on social networks at a top position. This was the case when Trump fostered distrust in the vote-counting process and minimized the real impact of the COVID-19 virus after leaving the hospital (Figure 4).

Figure 4. Front pages of *The New York Times* in October 2020, replicating tweets from Trump.

The link between traditional media and the messages of a populist leader on a social network provides evidence of the hybridization of the current political landscape. Trump used Twitter as his main communication channel, but the propaganda mechanisms did not remain on social media; rather, they moved to the quality press. Most of the front pages of the sample applied this type of propaganda label, which should trigger a deep reflection on the amplified role of legacy media in far-right populism.

5. Discussion and Conclusions

The 2020 US presidential election attracted global attention. Trump's political campaign, the use of a cyber-rhetoric, and a narrative based on electoral fraud reinforced the image of the Republican candidate among populist politicians, the media, and citizens. Other far-right populist leaders placed him as the center of the conversation on Twitter; meanwhile, the press gave a large amount of coverage to the process, and polls stated that a huge percentage of citizens continue to consider him the winner of the election.

On the one hand, this study aimed to verify the presence of propaganda mechanisms in Trump's speech on Twitter and to determine the extent to which their themes and strategies coincide with those of other extreme right-wing populist leaders. On the other hand, we analyzed how the US elections were presented on the front pages of the international press and investigated the information bias with regard to Trump and news about the electoral process.

Our study offers insightful findings on the use of propaganda mechanisms as a common trend in the accounts of populist leaders on Twitter. These rhetorical resources reinforce both the issues (issue frame) and the strategies (game frame) used by politicians to promote polarization, attack opponents, and confusion of public opinion (Neudert and

Marchal 2019). Beyond that, the legacy media are far from showing a critical attitude towards political lies, contributing to the development of different ideological approaches and increasing the level of disinformation that populism fosters (Bennett and Livingston 2018). Everything occurs in a context of platformization (Smyrnaios and Rebillard 2019), confrontation, and a political infodemic that affects the public sphere as a space for deliberative democracy (López-Borrull et al. 2018).

In response to **RQ1**, which was developed to investigate how the themes and strategies of far-right populism identify with the speech of Trump and the populist leaders on Twitter, a prevalence of the conflictive framework (horse race) as a game frame was detected. In addition to that, corruption was identified as the most relevant thematic issue in Trump's tweets. In this sense, the theory of fraud and delegitimization of the elections was the basis of his narrative, explaining the public belief about Trump's victory collected by the polls (Pew Research Center 2020). For European leaders (Salvini, Le Pen, and Abascal), the most prominent frames were related to COVID-19 and immigration issues, topics avoided by Trump and Bolsonaro, given their controversial management of these problems.

Another of Trump's strategies shared by the rest of the leaders was the use of rhetoric on Twitter. The most commonly referenced resources consisted of appeal to emotion and the presentation of opinions as facts, showing a pattern of false messages. Information selection and the use of attributions also seem to be outstanding tools. Trump built false arguments about election fraud through the use of simple language, the selection of information, and by attacking other sources (adversaries, institutions, media, etc.). The use of spectacular language for propaganda purposes was used as a strategy by all leaders, regardless of geographic scope. This provided the answer to the second research question (**RQ2**), as that these mechanisms triggered the spread of disinformation. This is considered a characteristic of the messages of populist leaders on Twitter and endangers institutions and democracy.

Finally, we found that the press also reproduced messages of populism and disinformation on the digital front pages. In line with the discourse of the leaders on Twitter, the fallacy and mechanisms of propaganda were integrated into the news. However, there was less weight given to resources such as the appeal to emotion and the use of opinions as facts. Instead, other mechanisms such as attributions and information selection were used. It is remarkable that most of the front pages contained elements of the populist narrative.

Likewise, the information bias in news coverage was identified as a factor shared by the newspapers with a prevalence of 80% over the use of positive or neutral tones. As in other election contests held in the United States and other European contexts, the level of hostility between populist leaders and the media has been constant (Pérez-Curiel 2020). The negative tone used to describe the attitudes of the leaders, and a large amount of news on the American elections was identified as trends in all the analyzed newspapers. This dynamic collides with their responsibility as verifiers and guarantors of journalistic quality (Palau-Sampio 2018). In this sense, the third research question (**RQ3**) was also answered. The media were found to have an information bias in the coverage of issues published by populist leaders on Twitter.

Therefore, we argue that, like Trump, some of the main global populist leaders share speeches full of strategy and propaganda mechanisms on Twitter, especially messages containing emotion and the absence of factuality. Likewise, this study confirmed the negative bias and the prominence of disinformation on the US elections in the press, imitating their linguistic schemes. We showed that the leaders of far-right populism reproduced Trump's themes and strategies, reinforcing the idea of electoral fraud through mechanisms that promote disinformation. The international media also depicted the fallacy spread by politicians on Twitter on their front pages, revealing a significant critical attitude with a negative information bias in the coverage of facts and opinions.

Our findings are part of a wave of global illiberal populism, which has several characteristics (Waisbord and Amado 2017). This movement has implications in the public sphere, threatening the future of democracy (Moernaut et al. 2020). In the 2020 US elections, this

was evidenced by the rejection of the results by many Republican voters (Pew Research Center 2020). However, our research also confirms that there is a certain level of adaptation of these strategies and fallacies depending on the national context, beyond an international trend with points in common.

A limitation of this article concerns the reduced volumes of messages on Twitter disseminated by leaders such as Abascal or Le Pen, in contrast to the levels of production of tweets by other politicians. However, the main objective of this study required us to focus on the US elections. It would be of interest to study other elections in which popular populist leaders participate in future studies as well as to evaluate their behavior during non-electoral periods. The impact of the elections in the United States gave relevance to the time frame studied, although broader longitudinal approximations could further our understanding of how populist strategies enter the quality press. Additionally, academic works on fact-checking are relevant to this matter, highlighting the role of journalists as verifiers of fake news.

In conclusion, this contribution confirms the hybrid nature of populist communication and how it permeates the mainstream media from Twitter. This finding is relevant because the media selected have also been anti-right-wing populist press, advocating for cosmopolitan values. Besides that, the messages of the main international leaders are similar to Trump's speech during the US elections, prioritizing false and fraud-related content. In short, this communication model may spur cynicism and distrust towards democracy. It also fosters the negation of the electoral results and likely violent actions such as those witnessed later during the assault on the US Capitol. According to the Twitter messages analyzed, these trends are supported by extreme right-wing populism worldwide.

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Article

Populism, Twitter, and COVID-19: Narrative, Fantasies, and Desires

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Abstract: During a global pandemic, the great impact of populist discourse on the construction of social reality is undeniable. This study analyzes the fantasmatic dimension of political discourse from Donald Trump's and Jair Bolsonaro's Twitter accounts between 1 March and 31 May. To do so, it applies a Clause-Based Semantic Text Analysis (CBSTA) methodology that categorizes speech in Subject-Verb-Object (SVO) triplets. The study findings show that in spite of the Coronavirus pandemic, the main beatific and horrific subjects remain the core populist signifiers: the people and the elite. While Bolsonaro's narrative was predominantly beatific, centered on the government, Trump's was mostly horrific, centered on the elite. Trump signified the pandemic as a subject and an enemy to be defeated, whereas Bolsonaro portrayed it as a circumstance. Finally, both leaders defined the people as working people, therefore their concerns about the pandemic were focused on the people's ability to work.

Keywords: political discourse; populism; COVID-19; Trump; Bolsonaro

1. Introduction

In the midst of a global pandemic, it is particularly important to see how political discourses interpret and represent reality. Previous studies have already retrieved two mainframes in the political representation of the COVID-19 pandemic: (1) a global threat or (2) a minor issue (Greer et al. 2020). These opposing representations have had a direct impact on public policy and governmental response: national governments that saw the COVID-19 pandemic as a global threat (e.g., South Korea, New Zealand) applied measures such as social distancing, lockdowns, substantial testing, contact tracing, mandatory face masks, among others; governments with negationist approaches such as the United States and Brazil governments openly criticized lockdowns and mask wearing, and did not allocate significant resources to substantial testing, and encouraged their citizens to continue with their normal lives (Greer et al. 2020).

Accordingly, the aim of this paper is to display the narrative construction of COVID-19 in Jair Bolsonaro and Donald Trump's discourses.

Both politicians have several things in common: right-wing populist–nationalism, Christian worldviews, and a perfect political persona for the age of social media (d'Ancona 2019; Di Carlo and Kamradt 2018; Enli 2017; Llanada in Gonzalez 2016; Ortellado and Riberio 2018). Both surprisingly won their countries' presidential elections by exploiting social rage and discomfort towards the political establishment with a strong and emotionally captivating discourse (Bobo 2017; Cioccari and Persichetti 2018; Costa et al. 2019; Di Carlo and Kamradt 2018; Judis 2017; Smith and Hanley 2018; Casero-Ripollés 2021).

Acknowledging both the importance of emotions in populist discourse (Cervi 2020b; Cervi and Carrillo-Andrade 2019), and the downplay of the affective dimension of political

mobilization (Glynos 2011) by traditional approaches, this paper, following Glynos and Stavrakakis (2008), adopts and focuses on the Lacanian concept of fantasy. The concept of fantasy helps to disclose how emotions capitalize on the affective energy in a network of signifiers (Glynos and Stavrakakis 2008).

Thus, by recognizing the "elective affinity" (Gerbaudo 2018) between populism and social networks, the study analyzes Trump's and Bolsonaro's Twitter discourses during the first three months of the pandemic (1 March to 30 May), to display how the pandemic itself was framed an actor and how fantasy molded the narrative around it.

Populism

In order to analyze Trump and Bolsonaro's discourses, it necessary to first highlight the main characteristics of populism and populist discourse.

Due to the diversity of the phenomenon, defining populism is not an easy task (Cervi 2020a). Probably the most widely accepted definition is the one that considers populism to be a thin-centered ideology (Mudde 2004, 2013) that splits society in two homogenous and antagonistic groups, defined as the pure people against the corrupted elite, and argues that politics should be an expression of the general will of the people. Populism is seen as a thin-centered ideology (Mudde 2004) due to its lack of complexity and consistency compared to other belief systems. For that reason, populism can be combined with very different ideologies, such as nationalism, socialism, and communism.

In this vein, populism can be understood, and thus studied, as the discursive manifestation of a thin-centered ideology that is not only focused on an underlying "set of basic assumptions about the world", but on "the language that unwittingly expresses them" (De Vreese et al. 2018).

The idea of the "people" is at the center of populism: people form a community, a place where they feel safe and where there is mutual trust, a place where it is clear who is "one of us and who is not" (Cervi 2020b).

Therefore, *the people* are ruled and governed by "non-political" views because there is no need for them: social values and practices are ruled by common sense, as Stavaert once put it, by "the wisdom of the people" (Clark 2009).

The definition of the élite can also vary—although it usually includes politics, media, financial, judicial, and intellectual élites accused of being incompetent and selfish—yet the central claim that a group of élites are oppressing the people and seeking to undermine their rights and voice, does not change.

In this sense, as stressed by Mudde (2004), "the silent majority", whose—according to this narrative—legitimate power has been taken away by the "bad elite" (in other words, they feel socio-political discontent) need a leader who knows how to return power to the people. Populist leaders, therefore, display a sort of double-identity (Cervi 2020a): on the one hand they can understand average citizens' needs and concerns because they are part of the people, they are "one of us"; on the other they display exceptional Messianic characteristics since they are the only ones able to return the (legitimate) power to the people.

Populism and social networks

Social networks have been widely recognized as one of the keys to the current success of populism (Cervi 2020a; Casero-Ripollés 2018), to the extent that the relationship between social media and populism has been defined as an "elective affinity" (Gerbaudo 2018).

Social media disintermediation, in particular, helps populists to circumvent hostile journalistic gatekeeping (Groshek and Engelbert 2013), whilst at the same time representing an ideal "discursive opportunity" (Koopmans and Statham 2010) to frame mainstream media as part of the corrupted "elite". Furthermore, social media's attention economy which brings forward simple content (Klinger and Svensson 2016) and emotional communication (Papacharissi 2015), runs counter to the key traits of establishment politics, such as formality and moderation (Gerbaudo 2018), perfectly matching populists' discursive dynamics, which emphasize emotional elements (Hopster 2021) and a simplified dichotomous vision of the world (Cervi 2020b).

Donald Trump, in this regard, transformed Twitter into the preferred *locus* of his political narrative (Clarke and Grieve 2019; Elayan et al. 2020; Kreis 2017; Tasente 2020; Yaqub et al. 2017).

Likewise, in the case of Bolsonaro, many studies have shown (da Silva 2020; Fadanelli et al. 2020; Teixeira et al. 2019) how his communicative style perfectly matched Twitter's digital structure.

The fantasmatic: the realm of political desire

Traditional approaches to political discourse and ideology have downplayed the affective dimension of humanity, explaining political mobilization only in terms of interest-based rationalities and classic sociological categories (Glynos 2011; Casero-Ripollés et al. 2021).

As Norris and Inglehart (2016) have summarized, at the heart of the populist rhetoric is the promise of relief and redemption from anxieties and fears arising from contemporary events, therefore emotions cannot be left outside social science's interpretative framework.

In particular, all these processes take a narrative form. Narratives can be seen as sense-making devices that allow conceptions of stable selfhood to be projected, or even protected, across time and space (Eberle 2017).

Glynos (2008) connected narrative with fantasy and has argued that it can be understood not as a veil of "false consciousness", but rather as a filter that reduces anxiety by showing subjects "their place" in the world and providing them with the "security of being".

According to Glynos (2008, p. 283) fantasy has "a narrative structure involving some reference to an idealized scenario promising an imaginary fullness or wholeness (the beatific side of fantasy) and, by implication, a disaster scenario (the horrific side of fantasy)".

Thus, fantasy can be understood as a mediator in the subject's relation to norms and ideals that rule social and political practices (Glynos and Stavrakakis 2008). It thereby connects the "dry" socio-symbolic field (its official insignia) to the "sticky" affective dimension of the subject (Glynos and Stavrakakis 2008). In sum, fantasy combines the key role that the symbolic and the affective play in social and political life (Glynos 2011).

The fantasmatic dimension is therefore the locus of affective energy (Salter 2016). From this theoretical stance, emotions are not only subjective or psychological, but socio-cultural practices that move bodies and stick to them (Ahmend in McMillan 2017). Fantasmatic logics are about the promise of (an always already lost) enjoyment involved in sociopolitical values and practices: the primary function of fantasy is to offer up a return to enjoyment whilst at the same time maintaining a distance from the structural impossibility of it (McMillan 2017).

According to the Lacanian approach to social analysis, the lack of the socio-symbolic is an instantiation of the lack of the ontological that defines individual subjectivity (Glynos 2001; McMillan 2017). In other words, social contingency exists due to the individual subjectivity which is inherently lacking. This symbolic disruption paradoxically explains the stability and instability of socio-political practices because it structures the enjoyment (*jouissance*) that sustains them. The imagined promise of the fullness-to-come is what makes discursive constructions and narratives robust (Glynos and Stavrakakis 2008; McMillan 2017).

Glynos and Stavrakakis (2008) present three main modes of interaction between the enjoyment and dialectics of socio-political identification. The first explains how imaginary promises of gaining back our enjoyment provides the fantasmatic support for the political projects, social roles, and choices; slogans such as "good life" or "just society" are fictions of future states when the fullness has already come. Secondly, the desire and motivation are sustained also by the subject's limit-experiences linked to a jouissance of the body, not only by the discursive promise of fullness. These experiences are reinforcing practices associated with the defeat of an enemy (i.e., war, trade, sports) or partial celebratory practices linked to the promised fullness. However, similar to the experiences mentioned above, the enjoyment that derives from them is also partial, momentary, and unable to be sustained and to fully satisfy; it thereby ends up fueling dissatisfaction. Hence, the partial

jouissance reinscribes the absence in the subject and the always already lost *jouissance*: it reproduces the fantasmatic promise of its recapture. Thirdly, the promise of always escaping full enjoyment is linked to the Lacanian *objet petit a*, which is the cause of the desire, or the nucleus of a subject's fantasy. This must be actively forgotten along with the denial of the absence, which gives rise to the logic of fantasy. What is more, the lack of enjoyment is attributed to someone who has "stolen it". Fantasy shapes identity and fosters desire, and it does so by structuring the social subject's partial enjoyment through a series of collective practices and by reproducing itself at the level of representation in official and unofficial public discourse.

Another important element in this approach is the role of transgression. When fantasmatically structured, the enjoyment derived from transgression is the ultimate support and grip of a public order (Glynos 2001). This means that transgression sustains the power system because it is shaped by it (Glynos and Stavrakakis 2008). Therefore, self-transgressions perpetuate the dominant and the hegemonic powers because they are contained and signified within the symbolic order, not outside of it.

The beatific and the horrific

As noted above, fantasy is a motivational force that drives individuals and groups towards particular goals that positivize the constitutive absences in a contingent world (Salter 2016). The way the fantasmatic dimension holds social and political reality is through a promise of a fullness-to-come once an obstacle has been overcome and the prediction of the disaster if the obstacle is not defeated (Glynos and Stavrakakis 2008; Glynos et al. 2009). It satisfies our "hunger for certainty" by presenting a simplified two-way future with no middle ground (Eberle 2017): the beatific and the horrific. Whilst the beatific dimension is composed of the actions, agents, and conditions that will lead to the fullness-to-come, the horrific dimension involves all the signifiers that constitute the obstacle and are "responsible" for the stealing of our enjoyment, our *jouissance*. In order to attain this fixity, it needs representative groups or individuals (archetypical figures) to love and hate. Our very identity is portrayed as depending on this narrative (Eberle 2017).

2. Materials and Methods

In order to retrieve Trump's and Bolsonaro's main narratives, tweets from Donald Trump's and Jair Bolsonaro's Twitter accounts (@realdonaldtrump and @jairbolsonaro, respectively) from 1 March to 30 May (Trump = 1044; Bolsonaro = 698) were collected.

As Glynos (2001, 2008) and Eberle (2017) have pointed out, fantasy and fantasmatic logics are inherently narrative. A story can be defined as an actor(s) taking action(s) on something that culminates in a resolution(s).

In other words, a story can be analyzed taking in to account the structural categories Subject-Verb-Object, forming a triplet (from now on SVO) that can be generalized and thus applied to any story and narrative in any language (Aslanidis 2018).

Contrary to traditional studies about Twitter (Cervi and Roca 2017), since this study looks at the construction of actors, displaying what the actors do and how these elements compose the beatific dimension of the fullness-to-come and the horrific obstacle to overcome, as well as the predicted disaster if the obstacle wins (Glynos et al. 2009), Clause-Based Semantic Analysis (CBSTA) was applied, which consists of extracting triplets formed by the elementary syntactic components of language: Subject-Verb-Object (Roberts 2000; Rusu et al. 2007). The triplet strategy conceptualizes a narrative in clusters (Roberts 2000) and codes not only the signifiers but their structure in a statement, which allows the actions of political subjects, the objects of those actions along with their positive and negative affection, and the combination between these elements to be unveiled (Cervi and Tejedor 2020; Caiani and Porta 2011).

Aslanidis (2018) points out three main advantages of the CBSTA for populist narrative analysis. The first one is the reliability of the coding units because they follow objective, structural, and grammatical rules, which guarantee systematic, rigorous, and comparable units. It sets a much more valid criteria than the arbitrary segmentation that characterizes

other narrative methodologies. Secondly, triplets multiply the information due to the micro structural level of complexity; this makes the CBSTA particularly compatible with short texts, such as tweets, without sacrificing quality. Lastly, the SVO structure matches with the formal features of populist discourse: "elites steal people's power and well-being" and the interplay between elites and people (subjects) through specific actions (verbs) (Aslanidis 2018).

Accordingly, only written text was considered. All multimedia content (videos, images) and the texts from the retweeted accounts were excluded from the sample. CBSTA allows both quantitative and qualitative data to be obtained: the quantitative dataset was composed of the semantic SVO triplets retrieved, which can be analyzed qualitatively observing the attributes of the actors and their actions, along with epithets and adjectives (Caiani and Porta 2011; Rusu et al. 2007).

3. Results

Both leaders addressed their constituents in a very particular way in the beginning of the COVID-19 crisis. Table 1 shows the number of explicit references to the Coronavirus pandemic and the main signifiers of both discourses. First, it is worth noting that the number of explicit references was relatively low considering the global impact of the Coronavirus pandemic. Donald Trump exhibited fewer explicit references (79) compared to Jair Bolsonaro (141). While Trump mostly signified the pandemic as the "Coronavirus" (39.24%), the invisible enemy (20.25%), the virus (15.19%) and the pandemic (11.39%), Bolsonaro's most frequently used signifiers were "Covid" (48.34%), "Coronavirus" (20.53%), "virus" (11.92%), and "pandemic/epidemic" (9.27%). Moreover, it is important to point out that 5 of the 12 times that the "virus" signifier was used by Donald Trump it was explicitly characterized as the "Chinese virus" or "China virus" (6.33%).

Table 1. Explicit references to the Coronavirus pandemic in Donald Trump's and Jair Bolsonaro's Twitter discourses.

	Trump		Bolsonaro	
	n	**%**	**n**	**%**
Coronavirus	31	39.24	31	20.53
Virus	12	15.19	18	11.92
Covid	5	6.33	73	48.34
Pandemic/epidemic	9	11.39	14	9.27
Crisis	1	1.27	11	7.28
Invisible enemy	16	20.25	0	0.00
War/Battle	3	3.80	4	2.65
Plague	2	2.53	0	0
Total	79	100	151	100

3.1. Donald Trump

Trump's discourse presented reality in a very informal, explicit, and personal way, in opposition to traditional politics (Enli 2017). The use of capital letters, several exclamation marks, and informal words such as "hoax", "nasty", "dirty", "crazy", among others has also been noted. Following the two dimensions of fantasy, Trump's political discourse on Twitter was predominantly horrific (52.76%) and was almost double the beatific dimension (26.76%) as listed in Table 2.

Table 2. Dimensions of fantasy in Trump's Twitter discourse.

	SVO Triplets	**%**
Horrific	631	52.76
Beatific	320	26.76
Other content	245	20.48
Total SVO	1208	100

Source: elaborated by the authors (2020).

3.1.1. The Horrific

Table 3 shows the principal subjects of the horrific dimension of fantasy in Donald Trump's political discourse on Twitter. Donald Trump mainly targeted the Democratic Party (52.46%) and the Media (37.4%), who were defined as partners. The other two elements in the horrific dimension of fantasy in Trump's discourse were the Coronavirus pandemic (6.18%) and Republican in Name Only (RINO), his signifier to name the moderate members of the Republican Party (3.96%).

Table 3. Horrific dimension of fantasy in Trump's Twitter discourse.

	SVO Triplets	**%**
Democratic Party	331	52.46
Media	236	37.4
Coronavirus	39	6.18
RINO	25	3.96
Subtotal Horrific	631	100.00

Source: elaborated by the authors (2020).

The first component of the horrific was the Democratic Party (Table 4). Democrats were signified as "Do nothing". Trump dealt with this element of the horrific by not only attacking it but by mocking it. By using nicknames when referring to the main party figures, such as "Sleepy" Joe Biden, "Crazy" Bernie Sanders, Elizabeth "Pocahontas" Warren, "Crazy Nancy Pelosi", and "Mini" Mike Bloomberg, Trump ridiculed them every time he mentioned them. Even if it was a serious matter, mockery was always present when Trump talked about the Democrat Party leaders. Mike Bloomberg was by far his principal mockery target with 45 SVO triplets about him, followed by Bernie Sanders, who was portrayed as a loser, and "Sleepy" Joe Biden. Biden's mentions increased as the primaries advanced and Biden grew closer to the nomination. Trump attacked him on his mental fitness for office. Apart from the nickname "Sleepy Joe" that Trump put on him, he said Biden "doesn't know where he is or what he is doing" and "that he is asleep". In sum, humiliating and disrespectful humor was very important in Trump's representations of Democrats; here, the spectacular dimension was reinforced with a typical reality style. By means of nicknames, Trump characterized his rivals as ridiculous figures.

Table 4. Democratic Party.

Subject	Democrats
Epithets	*Do nothing* Democrats, *Sleepy* Joe Biden, *Crazy* Bernie Sanders, *Crazy* Nancy Pelosi, Mini Mike Bloomberg, Elizabeth *Pocahontas* Warren
Definitions	Democrats, Dems, DNC, Democratic Establishment, Radical Left, Obama
Adjectives	Weak, incompetent, pathetic, poor, radical,
Verbs (actions)	Do, get, should, play, complain, destroy, kill
Objects	Everything to disparage our Country and the People's voice, Democrats primary candidate to quit and endorse *Sleepy* Joe Biden, approve legislation, and come back to DC, golf, the Bernie Sanders campaign, economy-related activities

Other important elements in Trump's portrayal of the Democratic Party were the adjectives: 39 verbs were the ontological verbs including "to be", followed by the adjectives shown in Table 4: weak, incompetent, pathetic, poor, and radical. In opposition to them, Trump placed himself as the star who was strong and able to win the war and, in doing so, Keep America Great. After the ontological verbs came the verb "to do" (14 references) mostly followed by the phrase "everything to disparage the People's voice, our Country,

always complaining and killing small businesses" and "petroleum based anything". The verb "to want" (12 references) shows the presence of the desire of the horrific to prevent people from desiring the same (such as taxes, open borders, green energy). Finally, the verb "should" was used to direct his demands around legislation approval and coming back to (work in) Washington.

Furthermore, a strong message Trump repeatedly delivered was that the Democratic establishment conspired against Bernie Sanders; this message was mostly related to how the Democratic National Convention, the "Democratic establishment", "gets (primary presidential) candidates to endorse Joe Biden", "destroying the Bernie Sanders' campaign", who "would have easily won". Trump also suggested that Elizabeth Warren stayed in the race as long as it took in order to keep her voters away from Sanders, while the other candidates were preparing to quit the presidential race and endorse Joe Biden. This narrative portrayed Sanders as a victim of the vile Democratic establishment and seems to place Trump as a defender of Sanders against the established *elite* (that Hilton represented in 2016) that controlled the party and plotted against anyone that threatened the mainstream power structures. This can be understood as a strategy to keep dissident and antiestablishment voters with him, inviting them to join the Republican Party, and reinforcing the idea of "corrupted" planned elitist politics that had closed its doors to the grassroots movements, to *the people*.

Table 5 describes the second element of the horrific dimension in Trump's discourse: the "Fake News Media". This subject was mostly portrayed as "fake", "corrupt", as the "enemy of the people", and "disgraceful". This group of media included *The New York Times*, *The Washington Post*, *The Times*, CNN, MSDNC, ABC, NBC, CBS, *The Wall Street Journal*, and even a part of Fox News, which was signified as "pleading to be politically correct", and which was specifically mentioned 42 times. Trump stressed that Fake News was related to fake reporting and that some reporters "do everything to disparage our Country and the People's voice". They "always get it wrong", but they also knowingly reported fake information and disinformation. For example, "they report it was a loss no matter what we say or do, no matter how big the win". In one tweet, Trump mentioned that they "love to hate the massive Trump Coronavirus supply effort". The horrific Fake News Media were the enemy of the people because they were part of the elite characterized by their lack of transparency and their manipulative use of information, and they were also presented as the Democratic Party's partner.

Table 5. Media.

Subject	Media
Epithets	*Fake* News, Lamestream
Definitions	"Journalists", Opposition Party, Democrats' partners, CNN, NBC, ABC, *The New York Times*, *The Washington Post*, *The Wall Street Journal*, MSDNC, CBS
Adjectives	Fake, corrupt, Enemy of the People, disgraceful
Verbs (actions)	Do, Report, get, know, Make sound, blame
Objects	*Fake* reporting, everything to disparage our Country and *the People's* voice, *Fake* information, disinformation, it is wrong, it was a loss no matter what, Russia

Source: elaborated by the authors (2020).

Coronavirus is a less mentioned but strongly signified horrific subject in Trump's narrative (Table 6). At first, he said that his political enemies, the Democratic Party, and the Media, partnered to "inflame the Coronavirus situation". However, as time passed, he began signifying it as the Chinese virus, the China Plague, the China virus, the Wuhan Coronavirus, and the "invisible enemy". In doing so, he explicitly represented COVID-19 as a disease that came to the United States as a foreign phenomenon, fantasmatically

putting the responsibility of deaths and devastations caused by the pandemic on China, out of *the heartland*.

Table 6. Coronavirus pandemic.

Subject	Coronavirus Pandemic
Epithets	
Definitions	Coronavirus, Invisible Enemy, Covid, China plague, china virus, Wuhan Coronavirus
Adjectives	Invisible, Chinese, powerful
Verbs (actions)	Does not care, appeared, kill, will soon be, came
Objects	What party you are in, China, hundreds of thousands of people, in retreat, our country

Although Donald Trump constantly praised the Republican Party, he attacked and criticized a group of its moderate members, whom he called the "RINO" (Republican In Name Only). Famous politicians such as John McCain, Mitt Romney, George W. Bush, and other members of the Lincoln project belonged to the "RINO" group. The "RINO" were portrayed as losers and the "few remaining". According to Trump, they were beaten by Donald Trump, they copied Ronald Reagan, and should love the MAGA Agenda: republican judges, the military, the second amendment, veterans, and low taxes. It was implicitly said that they did not love the MAGA Agenda or that they did not support it enough. Trump rejected moderate Republicans because, when faced with conflicts such as the impeachment he faced, they did not stand up for him (Table 7).

Table 7. Republican "in Name only" (RINO).

Subject	Moderate Members of the Republican Party
Epithets	RINO (Republican in Name Only)
Definitions	RINO, Lincoln Project, John McCain, George W. Bush, moderate pundits, and consultants
Adjectives	Losers, Few remaining
Verbs (actions)	Raise, fail, get beaten, copy, did not have, should love, do not like
Objects	Money, Donald Trump, Ronald Reagan, Impeachment, a chance, MAGA Agenda

3.1.2. The Beatific

Table 8 shows the number of SVO triplets that were found to have beatific content that are categorized and listed by subject. Contrary to the horrific, the SVO triplets containing the beatific in Trump's Twitter discourse are almost the half the number of the horrific (see Table 1). The Republican Party was clearly the main element of Trump's beatific dimension (51.88%), followed by the American People (29.06%), and himself (19.06%).

Table 8. Beatific dimension of fantasy in Trump's Twitter discourse.

	SVO Triplets	%
Republican Party	166	51.88
American People	93	29.06
Donald Trump	61	19.06
Total beatific	320	100.00

With regard to the Republican Party, Table 9 summarizes the fact that between March and May, Trump defined the Republican Party around the candidates that were campaigning. When endorsing the Republican politicians, Trump described them as supporters of the Make America Great Again (MAGA) agenda, which was turned into Keep America Great (KAG). More precisely, the endorsed Republicans were said to love, defend, stand with, and protect the Second Amendment, the "unborn", the military, veterans, farmers, small businesses, tax cuts, and America. They were also "strong on crime and borders" (100 mentions).

Table 9. Republican Party.

Subject	Republican Party
Epithets	—
Definitions	Endorsed Republican candidates for Senate, State government and House of Representatives.
Adjectives	Strong, tough, 100% prolife, real leader, great, fighter, proud
Verbs (actions)	Is, go, love, protect, defend support, work
Objects	MAGA Agenda, MAGA/KAG, Second amendment, strong on Crime, borders, the unborn, our military, veterans, farmers, America, our Country, small business, business, tax cuts

As listed in Table 10, Donald Trump portrayed "*the people*" as necessarily American. What is more, the few times he mentioned America, he attributed the same traits and actions to the country that he gave to *the people*, which were inherently and explicitly national. This construction of "*The American people*" was comprised of veterans, small business, farmers, the "unborn", and the American citizens, who were fantasmatically opposed to illegal immigrants. American exceptionalism (Gans 2011) can be seen in the use of superlative adjectives: the strongest and most resilient were used when referring to *the people*; the greatest was used when referring to the healthcare system, experts, scientists, and doctors. The *people* were described as great, good, real, hardworking, incredible, and amazing (70 references). Trump's narrative foretold that the people would prevail and would win, and that the nation would heal. He claimed that *The American people* wanted to go back to work (referring to the economic shutdown due to the Coronavirus pandemic) because they were losing their jobs, and said that we "cannot let the cure be worse than the problem", which was a rhetorical way of suggesting that the cure, which was the economic shutdown due to the Coronavirus pandemic, was worse than the pandemic itself. For that reason, it can be suggested that Trump was more worried about the pandemic's impact on the economy rather than on public health.

Table 10. The American People.

Subject	The American People
Epithets	—
Definitions	People, American people, Americans, we, American citizens, Military, Vets, Country, workers, Farmers, Unborn
Adjectives	Good, great, strong, united, hardworking, incredible, amazing
Verbs (actions)	Are, want, have, will prevail, need, will win, cannot let, lose, get, should not follow
Objects	Work, Republicans, wall, borders, the war on the Invisible enemy, business, the cure be worse than the problem, jobs, fake news, money, less money

The final important element of the beatific dimension of Donald Trump's narrative was himself (Table 11). The self-references were in first person, and he defined himself as a proud American. Trump positioned himself as a protector of the Country, a president that "gets the job done". At the time of the analysis, he basically achieved this by closing the borders and banning China (14 references). Moreover, he fought the horrific: he claimed that he worked hard to "expose corruption and dishonesty of Lamestream Media". Finally, it is worth noting that in the beginning of the civil unrest due to the George Floyd murder, he used the signifier "United States" when talking about himself: "The United States will be designated ANTIFA as a terrorist organization", putting her political opponents out of *the heartland*.

Table 11. Donald Trump.

Subject	Donald Trump
Epithets	—
Definitions	I
Adjectives	Proud
Verbs (actions)	Protect, close, issued, get, work, know
Objects	Country, borders, China ban, all back, the job done, to expose corruption and dishonesty of Lamestream Media

3.2. Jair Bolsonaro

President Bolsonaro's discourse on Twitter clearly differs from Trump's. As listed in Table 12, the SVO triplets for the beatific dimension (34.62%) were quadruple the number of the SVO triplets for the horrific dimension (8.04%). It is worth noting that most of the content did not fit the beatific or the horrific categories (57.33%).

Table 12. Dimensions of fantasy in Bolsonaro's Twitter discourse.

	SVO Triplets	%
Horrific	465	34.62
Beatific	108	8.04
Other content	770	57.33
Total SVO	1343	100

3.2.1. The Beatific

Table 13 shows the principal subjects of the beatific dimension of fantasy in Jair Bolsonaro's political discourse on Twitter. The government was largely the principal agent (67.47%), followed by the Brazilian *people* (13.86%), and Jair Bolsonaro (8.13%). The military, the United States, Hydroxychloroquine, and God were other fantasmatically significant but not frequently mentioned elements of the beatific in Bolsonaro's narrative, with less than 3% each. However, some fantasmatic entities were rarely and explicitly shown, because they underlay daily actions, statements, and policies (Glynos 2008, 2001). Thus, their importance cannot be measured in quantitative terms only.

The main beatific agent in Bolsonaro's narrative on Twitter was the Government. Mostly defined by the signifiers "Government", "Federal Government" (247 references), this agent was portrayed as the doer, the provider, without any adjectives, who was discursively defined only by its actions, which were always in favor of the Brazilian people (Table 14). In that sense, Bolsonaro constructed his government as the one that took action and worked to manage the resources to provide what the *people* needed in the midst of the Coronavirus crisis: economic aid, resources, funds release, low taxes, healthcare, and houses. It is worth noting that the Government, as a beatific agent, was embedded in the Coronavirus crisis.

Table 13. Beatific dimension of fantasy in Bolsonaro's Twitter discourse.

	SVO Triplets	**%**
Government	365	67.47
Brazilian people	75	13.86
Jair Bolsonaro	44	8.13
Military	16	2.96
United States	16	2.96
Hydroxychloroquine	13	2.40
God	12	2.22
Total	497	100

Table 14. The Government.

Subject	**Government**
Epithets	—
Definitions	Government, Federal Government, Ministries, We, The Executive
Adjectives	—
Verbs (actions)	Act, releases, allocates, continue, gives, finishes, cuts, calls, authorize, suspends, announces, extends, gives, uses, produces
Objects	Millions of *reais*, resources, its actions, its work, houses, constructions, taxes, physicians, production, debt payments, hydroxychloroquine

Similar to Trump, Bolsonaro's representation of *the people* was intrinsically linked to Brazil. He treated both concepts as synonyms (58 references): they performed the same actions and had the same qualities (Table 15). The Brazilian *people* were portrayed as united, strong, and generous. The people wanted work, food, and health because they were hungry and were in a hurry to get back to work; he also claimed that "the people" would also win the battle and get through it. They received aid too. Bolsonaro's discourse clearly addressed/constructed *people's* desires, which were fantasmatically opposed to lockdown measures and the economy shutdown. Similar to the previous beatific agent, *the people* were a subject whose fantasmatic discursive construction was defined by the Coronavirus pandemic: their desires and struggles could not be understood without the pandemic situation.

Table 15. Brazilian *People*.

Subject	**Government**
Epithets	Brazilian people
Definitions	—
Adjectives	Brazilians, Brazil, people, population, patients, nation, workers, heads of household
Verbs (actions)	United, strong, generous
Objects	Want, will win, receive, are, will get through

In Table 16, it is shown that Bolsonaro referred to himself in the first person most of the time. Contrary to what might be expected of populist leaders, Bolsonaro seldom mentioned himself compared to the frequency that he mentioned the Government and he only did so in order to show a more personal dimension. He expressed his positive wishes and worries, emphasizing that he would not allow (evil) actions against Brazil and himself, or lies (Table 16). Additionally, Table 17 shows three other components of the beatific that have symbolic relevance in spite of their low number of mentions: the military, the United States, and Hydroxychloroquine. The military were presented as a branch of government

because they fought against the Coronavirus pandemic, and produced and provided the necessary health supplies; the United States were portrayed as an international partner that defended democracy, freedom, and safety, and an ideological ally that helped Brazil; and hydroxychloroquine was presented as an effective treatment against COVID-19, which was also recommended by physicians. The portrayal of hydroxychloroquine as a beatific subject might have been instrumental: if there was a cure, there was no reason to keep the economy closed.

Table 16. Jair Bolsonaro.

Subject	Jair Bolsonaro
Epithets	—
Definitions	I, Bolsonaro, President
Adjectives	—
Verbs (actions)	Wish, determine, will not let, do not see, restore, worry
Objects	Strength, actions against Brazil and myself, the truth, about jobs

Table 17. Military, United States, and Hydroxychloroquine.

Subject	Military	United States	Hydroxychloroquine
Epithets	—	—	—
Definitions	Armed Forces, Military, Airforce	Relation with USA, Mission Brazil/USA, Trump	Hydroxychloroquine, Cloroquina,
Adjectives		Good	Effective
Verbs (actions)	Fight, produce, give,	Defend, promote, help	Is, is used, has
Objects	Covid, health supplies, masks	Democracy, freedom, security, American interest in Brazil, Brazil entrance to OECD	Hope, effective against Covid, recommended by physicians,

The final important element in the beatific dimension of fantasy is God (Table 18), who was portrayed as a subject that was "above all". Bolsonaro presented this particular discursive trait, the element of fullness and totality, as an agent who blesses, resurrects, and loves, but especially as an observer who reveals (sees, unveils, exposes, enlightens) everything. God had a foundational role in Bolsonaro's discursive constructions. It was the underlying proposition and the silent basis that was not frequently mentioned but held a very strong symbolic meaning. It is also worth mentioning is that he cited and used biblical language.

Table 18. God.

Subject	God
Epithets	—
Definitions	God, Him, Jesus
Adjectives	—
Verbs (actions)	Bless, resurrects, sees, unveils, exposes, loves, enlightens, gave
Objects	Brazil, everyone, everything, the world, professional workers, his son, eternal life

3.2.2. The Beatific

Table 19 lists the principal subjects of the horrific dimension of fantasy in Jair Bolsonaro political discourse on Twitter. The media had the highest number of allusions (35.78%), followed by the Judiciary (17.59%), the Workers Party (12.96%), PT due to its original name Partido dos Trabalhadores, and the State Governors (11.11%). Former ministry of Justice Sergio Moro (8.33%) and other elements (13.89%), including crime related content, were in the last positions. It is worth noting that these mixed horrific elements that did not belong to any specific category were articulated in null-subject language.

Table 19. Horrific dimension of fantasy in Bolsonaro's Twitter discourse.

	SVO Triplets	**%**
Media	39	36.11
Judiciary	19	17.59
Worker's Party	14	12.96
State governors	12	11.11
Sergio Moro	9	8.33
Other elements	15	13.89
Horrific	108	100

Table 20 shows the actions of the Media, the main horrific obstacle to be overcome in Bolsonaro's narrative. The Media was represented by *Estadão* and *Globo*, the mainstream Brazilian media networks, as well as "journal", "journalists", "media" and "press". In relation to the Coronavirus pandemic, they were explicitly portrayed as partialized liars that spread panic and ignored Government actions. They were also signified as agents that covered (favored) the judiciary's actions against him and treated criminals as victims.

Table 20. Media.

Subject	Media
Epithets	—
Definitions	*Estadão*, journal, journalists, *Globo*, media, press, station
Adjectives	Liars, partialized, idiot, trash,
Verbs (actions)	Spread, ignore, lie, cover, publish, treat, blame
Objects	Panic, government actions, to the people, judiciary actions (against Bolsonaro), criminals as victims, the president

Table 21 describes how Bolsonaro represented the Judiciary. It is important to consider that this horrific element only appeared in May when the courts started a case against Bolsonaro due to allegations of misinformation spreading. For that reason, the judiciary were described as opportunists who prosecuted and accused him, and who had infiltrated people in his cabinet, and who favored *Partido da Republica*.

Table 21. Judiciary.

Subject	Judiciary
Epithets	–
Definitions	Judiciary, Federal Supreme Court, Augusto Aras
Adjectives	Opportunists,
Verbs (actions)	Prosecutes, accuses, favors, infiltrates
Objects	Bolsonaro, *Partido da Republica*

Additionally, Table 22 describes the way in which the Worker's Party (PT) and the State Governors were portrayed. On one hand, the "PT" signifier represented the party and its leaders, namely, former presidents and Fernando Haddad, his former opponent in the last presidential race. Although Bolsonaro occasionally mentioned them, he stressed that PT told lies and had a corrupt government that had indoctrinated and abandoned Brazil. On the other, the Governors were unequivocally characterized by their "authoritarian" measures and their "challenging" of the rule of law (Table 22), referring to their measures that opposed his government's course of action to address the Coronavirus pandemic.

Table 22. Worker's Party (PT) and State Governors.

Subject	Workers' Party (PT)	State Governors
Epithets	–	
Definitions	PT, Fernando Haddad, former Presidents	Governors
Adjectives	Corrupt, bad joke	—
Verbs (actions)	Tell, abandon, indoctrinate	Take, attack, do not follow, cause
Objects	Lies, pandemic will end capitalism, brazil	Authoritarian measures, rule of law

Finally, Bolsonaro's representations of Sergio Moro were in relation to him. He defined Sergio Moro as "Judas", which fantasmatically positioned himself as "Jesus", a messianic figure betrayed by a person who once had his confidence and was his former ministry (Table 23). Moreover, he claimed that the former Ministry "spreads chats without authorization and interferes in order to prevent inquiry". The other elements of the horrific were unclearly defined subjects who wished chaos, power, and the worst for Brazil, which suggested the presence of conspiracy thinking.

Table 23. Sergio Moro and other elements.

Subject	Sergio Moro	Other Elements
Epithets		
Definitions	Judas, Former Ministry, Moro	Criminals, those who,
Adjectives	—-	—
Verbs (actions)	Spread, interfere	Want to get out, agitates, wish
Objects	Chats without authorization, to prevent inquiry,	Of prison, protests, the worst for brazil, chaos, intrigue, power, destroy Brazil

4. Discussion and Conclusions

The study findings confirmed the predominance and pervasiveness of the affective dimension of populist discourse during the Coronavirus pandemic. Presidents Trump and Bolsonaro clearly defined the elements that constituted the fullness-to-come in relation to a network of signifiers such as the *people*, their institutionally supported political actions, and themselves. In spite of a pandemic which could be signified as a horrific subject, both leaders insisted on putting their political enemies at the core of the horrific dimension of their fantasmatic narrative with populist signifiers such as the media and their opposition parties, though in different frequencies and symbolic constructions.

Foremost, both narratives have common ground. Donald Trump and Jair Bolsonaro portrayed themselves as solid authorities whose desires and measures were institutionally supported. In both cases their institutional supporters appeared as the first and most mentioned beatific agents. For Donald Trump, it was the Republican Party who fought

for and supported the Make America Great Again Agenda, and for Jair Bolsonaro, a president without an established political party, the most important beatific subject was the government itself. Despite the personalistic tendencies expected from populist leaders (Mudde 2004), Trump's and Bolsonaro's authority relied on (needed) institutional support. In both cases, they used their institutional supporters to strengthen their approaches to the pandemic, and they stressed that they were with *the people* and stressed their need to have the economy open.

Moreover, the national *people* were the second beatific subject in their narratives. In both cases, the most mentioned verb was the ontological, the verb "to be", followed by adjectives; and the verb "to want", which was unequivocally linked to desire. Their representations portrayed a united, strong, and desiring *people* that wanted to go back to work (thus the government had to keep the economy open) and whose qualities would allow them to overcome the Coronavirus pandemic. This construction of *the people's* desires and their ontological actions clearly showed that what made *people* virtuous and beatific was labor: they represented *the people* as *working people*. Then, it followed that the worst impact that the pandemic could have on their constituents was on their ability to work. One final aspect worth mentioning is that although the presidents tended to represent their constituents as nationals, Trump and Bolsonaro stressed their people's national identity, using their countries' names (United States, Brazil) as equivalent signifiers to the people, attributing to them the same actions and adjectives which were also shared in both leaders' representations.

Thirdly, a key element to understand Trump's and Bolsonaro's narratives around their construction of the horrific is the notion of conspiracy. Contrary to the expected call for national unity, leaving politics aside in the midst of a global crisis detected by other studies focusing on non-populist politicians (Pérez Tornero et al. 2021), both leaders insisted on their portrayal of their political enemies as dark and corrupted *elites* and enemies of *the people* who wanted to keep them out of power and who spread lies through *fake news* and misinformation. Despite their differences in the number of mentions, the media was a key subject of their horrific dimensions of fantasy, who now spread misinformation about the pandemic, causing panic and ignoring their government actions.

Nevertheless, there are differences between Trump's and Bolsonaro's Twitter political discourses. Firstly, there are distinctions worth mentioning related to the representation of the Coronavirus pandemic. Even though both leaders shared the portrayal of the pandemic's impact and defended the use of hydroxychloroquine to treat COVID-19, they characterized the Coronavirus differently. While Donald Trump portrayed it as a subject who had certain attributes (e.g., Chinese, invisible) and did terrible things (e.g., killed people and would soon be in retreat), Bolsonaro signified it as a bad situation (crisis) in which the government acted (e.g., released funds, provided, gave) to protect *the people*. This is relevant because in Trump's narrative the virus was an actor that made things happen, whereas in Bolsonaro's narrative the virus was a scenario where things happened. On one hand, Trump emphasized the foreign (non-American) nature of the virus, "the invisible enemy", strengthening his nationalist narrative and portraying the virus as an agent from a geopolitical rival. On the other hand, Jair Bolsonaro used the circumstantial approach to strengthen his political leadership and character through government actions, giving detailed accounts of the policies and measures his government was implementing.

Another distinction between Trump and Bolsonaro is the way they sustained their authority and political leadership. Donald Trump mainly relied on the Republican Party, an established party that defended his political agenda and legitimized him. It was through the Republican Party that the fullness would come or return: American greatness depended on the Republicans because they would follow the Make America Great Again (MAGA) Agenda. Thus, the American people needed them. However, Bolsonaro's narrative openly emphasized his government's actions in favor of *the people*. It was through government that he showed his political capacity to his constituents, with a much more pragmatic and traditional approach than Trump's. However, it seems that depending exclusively on

a temporary agent such as the government was not enough. For that reason, Bolsonaro sought support in other beatific agents: one institutional, the military; one international, the United States; one circumstantial, Hydroxychloroquine; and one mystical, God. Despite the low frequency of their mentions, these agents strengthened him politically in different domains: governability, international politics, healthcare, and religion/spirituality.

Although both leaders emerged and won their presidencies by channeling the social rage and discomfort with the political establishment represented by the Democratic Party and the Workers Party, respectively, (Di Carlo and Kamradt 2018; Enli 2017; Francia 2018; Hunter and Power 2019; Judis 2017; Ortellado and Riberio 2018) their fantasmatic focus was different. Whilst Bolsonaro's fantasmatic narrative was largely beatific, Trump's was clearly horrific. In the pandemic, Bolsonaro emphasized his government's measures in favor of the people, which exhibited a much higher number of mentions than any other subject, independently of its beatific or horrific nature, while Trump remained predominantly reactive to the corrupt Fake News Media and the incompetent Democratic Party, which *continued* to deprive America of its greatness.

This difference could be explained in terms of the political systems of each country. On one side, the United States exhibits a solidly institutionalized bipartisan system, in which the Democratic Party now controls the Low Chamber in Congress, several state and local governments, and was definitely going be his electoral rival in the 2020 presidential election. On the other, Bolsonaro's political arena was composed of a multi-party system controlled by *Centrão*, a group of establishment political parties, in which he did not fit and that led him to create his own political party, Alliance for Brazil, in 2019. Another contributing factor might be each leader's political career. Donald Trump entered politics as an outsider whose narrative was that he had to run for President because the political establishment was ruining the United States, destroying its identity and values. Conversely, Bolsonaro is a career politician who has been in public office almost his entire life and although he positioned himself as the strongest figure against political correctness, the majority of this messages clearly show a traditional governmental communication style.

In conclusion, in spite of the Coronavirus pandemic, the main beatific and horrific elements remain the core populist signifiers: the (national) people as beatific and the elite as horrific, namely the media and their political enemies. Nonetheless, Trump signified the pandemic as a subject, a Chinese enemy to be defeated, and Bolsonaro signified it as a circumstance where the government took action. Finally, they also differ on their narrative focus: while Bolsonaro basically displayed a beatific fantasmatic narrative based on government actions in favor of the people, Trump's focus was on the horrific side, the corrupted elite.

Altogether our results allow us to state that focusing on the fantastic horrific construction in political discourse can effectively make a novel contribution to the existing knowledge of both populist and non-populist communicative strategies.

Accordingly, on the one hand, future research should compare more discourses of populist politicians to study the (possible) existence of common patterns, such as the ones retrieved, for example, in anti-immigration discourses (Cervi and Tejedor 2021; Cervi et al. 2020). On the other hand, it would be helpful to apply this methodology to non-populist actors to deepen our understanding of how the mediatization of politics (Marín Lladó and Tornero 2020; Higgins 2017; Mazzoleni 2008) forces most political actors to embrace a more emotionally driven communication style.

Author Contributions: Conceptualization, L.C.; methodology, L.C.; software, F.G.; validation, C.M.L. and L.C.; formal analysis, F.G.; investigation, L.C. and F.G.; resources, C.M.L.; data curation, F.G.; writing—original draft preparation, F.G. and L.C.; writing—review and editing, L.C.; visualization, C.M.L.; supervision, L.C. All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

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