



## Article Public Information, Traditional Media and Social Networks during the COVID-19 Crisis in Spain

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**Abstract:** This research presents a diachronic study of the information given about COVID-19 by the main Spanish mass media through their accounts on social networks. The time frame of the analysis ranges from 1 March to 21 June 2020. Data were collected from the days prior to the proclamation of the state of alarm in Spain, in order to observe the growth in the demand for information about COVID-19, and ended on the day that the Spanish government allowed mobility between provinces and, consequently, the expiration of the alarm. It begins with a quantitative and qualitative analysis, the results of which allow us to explain the demand for public information, the degree of interest in the news and the level of interaction that developed. By adapting the Kübler-Ross model, it has been possible to identify the different stages of this public health and communication crisis in relation to public information and media sustainability. It has established the effectiveness of Facebook as an information platform with direct links to news, superior to other networks; the users' predilection for issues of a social nature over political and technical-health issues; or the relationship found between the rate of publication of messages and the number of deaths from COVID-19.

Keywords: COVID-19; mass media; news consumption; pandemic; public debate; social media

### 1. Introduction and Theoretical Considerations

The COVID-19 crisis has generated concerns in society and, consequently, a significant demand for information from global citizens. Faced with a highly complex critical situation, information becomes an essential resource to reduce uncertainty in the face of risk and facilitate the adaptation of our behavior to the new unforeseen scenario. Information and media sustainability are crucial assets in this regard, as pluralism and freedom of expression, together with ethical and responsible behavior, help to manage public opinion, even more so in the middle of a pandemic. In this article we will connect the need for public information through traditional media and social media when responding to a health crisis.

A phenomenon of such exceptional magnitude and relevance has motivated a large scientific production, also in the field of communication from different perspectives. By way of example, it is worth mentioning previous work that addresses information sustainability on social networks about COVID-19 and the social discussion caused by the consumption of online content [1]. This online content may be from official and reliable sources as well as questionable sources [2–4] that have led to the coining of terms such as 'info-demic' or an 'epidemic of false information' which are defined by rumors or fraudulent information with the capacity to amplify the spread of social behaviors that may be deemed negative or harmful [5,6]. Analysis of the communication by institutions [7] or comparative studies between digital media and the paper-based press [8] have also been proposed.

Continuing the tradition of communication research, most of the proposals attempt to approach the complex process of social influence from the media [9] (p. 9) as a primary source of public opinion and the creation of a social image of the pandemic, and how this information has affected the behavior of individuals in this particular environment. As



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**Copyright:** © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). McQuail states, "the power of the media can vary over time" [10] (p. 501), therefore it is not constant and depends on the social context.

In its origin, the concept of a public sphere proposed by Jürgen Habermas is related to the rise of the press and other spaces for citizen exchange that emerged during the 18th and 19th centuries [11]. If in the last century Marshall McLuhan defined the media as technological extensions of men, in our present, it could be said that certain technological tools, such as smartphones, have ceased to be mere extensions of men and have become technological prostheses assumed in a natural way that, being constantly with us, they resemble one more bodily function and allow the individual a constant and instantaneous social connectivity [12] (p. 489).

At present, the space for debate and the formulation of public opinion has been extended to the social networks [13] that have joined the pre-existing public sphere [14] (p. 359), building a hybrid system of communication in which traditional media and digital platforms converge [15]. In this way, a double gatekeeper system is produced and is distributed between the media—at the moment they decide to publish—and the users' contacts on the networks at the moment they decide to "share" them [16]. This participation through social networks can be considered as a psychosocial variable of citizen involvement, since with its appreciations, it can affect political decision-making [17] due to its ability to generate states of opinion in society [18]. The different motivational dimensions of use should not be forgotten when analyzing these virtual communities; for example, for many their leading role may be for entertainment [19].

Beyond the discussions between utopian and skeptical positions on the technological capabilities to generate a new space for the construction of public opinion and social change, traditional media still produces most of the news that we consume, including the news that circulates through social networks and content aggregators [20,21] (p. 4), due (among other reasons) to their capacity for resources, trust and legitimacy, all connected to their own sustainability. Despite the growth experienced by social networks as a form of access to news in recent years [22], "the data show that during this health crisis they are not able to unseat traditional media as a priority source of information for citizens" [23] (p. 11).

In an informational ecosystem in which "usage habits go faster than the producing agents" [24], traditional media make intensive use of digital technologies as an important mechanism for self-promotion of their proposals and for the distribution of their own content, applying a propaganda logic based on "viralization" [25] (pp. 7–10) that fosters their social influence. However, it is a framework in which the culture of adherence often prevails over deliberation [26].

Most of the academic research mentioned above, on the redistribution of information and news shared by users through social networks, have adopted quantitative methodologies. They focus on observing the most disseminated content and studying the social networks in which it has been shared [27]. In the present study, quantitative and qualitative aspects are mixed, starting from a double perspective: on the one hand, the dissemination of information related to the COVID-19 crisis generated by the main national media outlets through their social networks and, on the other, the monitoring or acceptance of it by these audiences.

The concept of sustainable development and sustainability, defined in the Brundtland report as "development that meets the needs of the present without compromising the ability of future generations to meet theirs" [28], has evolved in many ways to include the points of view of the media ecosystem and communication with different sustainability indicators, which we are analyzing here.

In this regard, it is clear that sustainable and inclusive growth is related to communication and the capacity for transparent and truthful information made available to the public. In fact, the media and digital channels are key players for the 2030 agenda and play a fundamental role in achieving the Sustainable Development Goals [29].

This is a diachronic investigation that seeks to go beyond the elaboration of a descriptive account of how the consumption of information has been modulating. It thus intends to investigate the social behavior of citizens in the face of information received from the different media, for which a distinction was established between press, radio and television.

As a main objective the research aims to carry out an analysis of the presence and behavior of the most relevant Spanish traditional media in their social media profiles during the confinement period caused by COVID-19.

In addition, the article pursues the following specific objectives:

To determine the activity of these traditional media in their respective social profiles and the demand for information from the public.

To analyze the behavior of social profiles and determine which social networks had the most interaction and engagement.

To identify the topics related to COVID-19 that generated the most interest throughout the time period under study.

To try to establish some parallelism with the Kübler-Ross psychological model and its five phases.

An attempt is made to review the topics related to COVID-19 that generated the greatest interest throughout the time period under study, in order to improve understanding of the motivations related to the demand for information and the perception of threat or risk on the part of the population. The objective risk is not the same as the perceived risk, since the latter is the result of the sum of threat and indignation [30]. The coronavirus crisis meets most of the requirements formulated by Sandman [30] and achieves, at least in Spain, a perception of the situation that we could define in terms of social fear and sadness [31].

For this reason, we decided to incorporate and adapt the Kübler-Ross [32] model to the communicative analysis carried out, in order to identify the evolution of the various emotional reactions that could occur in the participation of users of social networks during the study. The evolutionary models of grief are based on a premise: when faced with a significant loss, people have different emotional reactions that develop in different stages.

The theory of the psychological model of Kübler-Ross has been used worldwide [33–36] to explain the subjective experience of the person when facing death and establishes five phases that every individual can go through in the framework of tragedies derived from traumatic illness or loss: denial, anger, negotiation/pact, depression and acceptance [32]. These five phases do not always have to be strictly sequential; they can alter their order or coexist [37].

Its adaptation to the situation caused by COVID-19, in the digital context and established time frame, makes it possible to identify the phases that society and users of social networks have gone through during this pandemic.

This research is structured based on the following general aspects: introduction and theory, methodology, results, discussion, conclusions and references. In order to facilitate reading, the results section is divided into different subsections. Firstly, a more quantitative part including an analysis of relationships between publications and interactions by media and social networks in the study. Secondly, a part with more discursive aspects focused on the discussion topics about the pandemic during the established time frame of study. Finally, we have a section which aims to explain the Kübler-Ross model applied to the object of the research through a preliminary descriptive analysis.

### 2. Materials and Methods

This research aims to identify the behavior of traditional media on social networks and their information offered during the crisis caused by COVID-19. It seeks to recognize the degree of interest generated in its audiences by observing the interactions received towards the topics published during this exceptional situation to determine which content was more readily accepted in each of the social networks analyzed.

We discuss here different digital ratios when carrying out the analysis, explicitly the following:

Publication rate, understood as the ability to generate content in the form of publications in each of the social profiles by the respective media.

Interaction/engagement rate, also reflected in the research with the term 'acceptance', measures the proportion of interaction of a publication in the public through clicks, videos played or page views, among others. In the case of the YouTube social network, the number of views is also analyzed.

The time frame of the investigation is from 1 March to 21 June. In this way, the days prior to the proclamation of the state of alarm in Spain are collected, in order to be able to observe the growth of the demand for information on the subject being studied, and it ends the day on which the Spanish government allowed mobility between provinces and, consequently, the expiration of the emergency decree. For this, two phases have been differentiated: the first from 1 March to 31 May, detecting a key period in the demand for information on COVID-19, and a second until the end of the analysis.

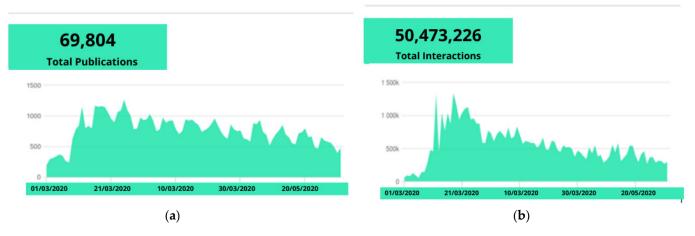
During the exploratory phase, some of the advanced and specialized tools on the market that would allow a measurement and analysis of the traffic generated on social networks with the necessary rigor were identified. After experimenting with several, it was decided to use the Data Analytics and Content Analytics applications from the Welovroi company (Madrid, Spain). The first allowed the comparison of the different media examined according to the metrics (KPIs) chosen within the programmed time range and their graphic representation. The second made it possible to analyze and filter the different contents that were related to the subject of COVID-19. These tools are directly connected via API (Application Programming Interfaces) with the different social networks and the different online sources such as Google Analytics or AdWords.

For this, more than a dozen keywords, ten communication media and four social networks were defined. The selected keywords were: COVID, coronavirus, confinamiento (lockdown), virus, pandemia (pandemic), cacerolada (banging pots), cuarentena (quarantine), contagio (contagion), epidemia (epidemic), alarma (alarm), máscaras (masks), desinfectante (disinfectant) and muerte (death). The media sample took into account their relevance in the national press, radio and television market following the criteria of diffusion and the number of readers, listeners and viewers according to AIMC and its report Estudio General de Medios [38], whose data are a reference among the agents that constitute the Spanish market. The dissemination of the official accounts in the social networks of the newspapers El País, El Mundo and ABC was analyzed; of the radio stations Cadena Ser, Cope and Onda Cero; lastly, from the television stations TVE, Antena 3, Telecinco and La Sexta. Regarding the segmentation of the chosen social networks, it takes into account their popularity and use in Spain according to the Study in Social Networks 2020 of the International Advertising Bureau Spain [39], with Facebook, Twitter, Instagram and YouTube being incorporated.

#### 3. Results

# 3.1. Evolution of the Volume of Publications of the Analyzed Media on Social Networks and the Number of Interactions of Their Users

After applying the search strategy specified previously in the methodology, using the keywords and the defined applications, the total number of publications during the first phase of the research period (from 1 March to 31 May) on COVID-19 in the social networks of the media that make up the sample, amounted to 69,804. There was a rapid increase in publications in the days prior to the alarm decree and it reached its peak on those days, specifically on the 12 and 13 March (see Figure 1a). The information offer was maintained during the last three weeks of the same month, but a decreasing trend was beginning to be seen.



**Figure 1.** Presence of COVID-19 contents in Spanish social media: (**a**) Total number of publications; (**b**) Total number of interactions. Source: Based on Welovroi (2020).

In the same way, taking into account the data obtained on the interaction rate (see Figure 1b), it can be deduced that COVID-19 has been one of the central issues during these three months for users who interacted with the social networks reviewed, detecting a total of 50,473,226 interactions. When observing the evolution of the rate and comparing the records on a monthly basis, a significant decrease in interest can be seen from April 11, coinciding with Easter. After examining the mean interaction of the three months -830.37 in March, 711.77 (-14.72%) in April and 605.31 (-15.27%) in May—it can be seen that the interaction rate decreases faster than that of publications, and can be interpreted as a symptom of attenuation of the level of concern or of "adaptation" to the new situation.

Significantly, the press was the sector of the media that achieved the best acceptance (see Table 1) in relation to the level of interaction generated on social networks (36.7 M), compared to television (7.98 M) and the radio (5.77 M). The newspaper El País stands out, as it became the medium that managed to capture the most attention from users on their Facebook and Twitter profiles, bringing together a rate of more than 13 million interactions in the three months of this phase of the study. In the television field, RTVE is the most active in terms of publications (see Table 2), but Telecinco is the channel that obtains the most interaction on its social networks (see Table 1). Lastly, with regard to radio stations, Cadena SER is by far the one with the highest publication rate and, in turn, is capable of generating the most interest.

Table 1. Top publications by medium.

Media	Туре	Social Media	<b>Total Publications</b>
El País	Newspaper	Twitter	8029
ABC	Newspaper	Twitter	7590
El Mundo	Newspaper	Facebook	5305
RTVE	TV	Facebook	5271
Cadena SER	Radio	Twitter	5039
El Mundo	Newspaper	Twitter	4991
ABC	Newspaper	Facebook	4379
La Sexta	TV	Facebook	3704
El País	Newspaper	Facebook	3589
La Sexta	TV	Twitter	3460

Media	Туре	Social Media	<b>Total of Interactions</b>
El País	Newspaper	Facebook	9.41 M.
El Mundo	Newspaper	Facebook	8.69 M.
ABC	Newspaper	Facebook	5.86 M.
Telecinco	TV	Facebook	4.18 M.
El País	Newspaper	Twitter	3.6 M.
Cadena SER	Radio	Facebook	355 M.
El Mundo	Newspaper	Instagram	2.45 M.
El País	Newspaper	Instagram	1.72 M.
El Mundo	Newspaper	Twitter	1.46 M.
La Sexta	TV	Facebook	1.28 M.

Table 2. Top of interactions by medium.

The social network that received the highest number of publications was Twitter (48.9%), followed by Facebook (45.1%), Instagram (4.7%) and YouTube (1.4%). On the other hand, Facebook caused a higher level of interaction (70.2%), followed by Twitter (13.9%), Instagram (11.6%) and YouTube (4.3%). Therefore, the different uses that people give to each social network are evident and, once again, the absence of a direct link between the number of publications and the ability to drive the conversation can be seen. Among other issues, in addition to the periodicity of the different messages, the volume of the community created by the medium and, decisively, the interest generated by the content relevant issues are revealed.

In this regard, it is worth highlighting the data obtained on the social network Instagram, which shows its high potential for adherence to social issues. Similarly, it can be seen how the highest numbers were concentrated on Facebook. The three national newspapers–El País, El Mundo and ABC–presented a similar publication rate, being in turn the ones with the best interaction rate. Finally, the data on the volume of publications and the interactivity achieved by the selected media are shown in Table 3.

Media	Туре	Total Publications	Total Interaction Views in the Case of YouTube
El País	Newspaper	13.1 K	15.3 M
ABC	Newspaper	12.2 K	8.1 M
El Mundo	Newspaper	11.9 K	13.3 M
Cadena SER	Radio	7.6 K	4.15 M
La Sexta	TV	7.2 K	1.53 M
TVE	TV	5.5 K	958 K
Telecinco	TV	3.8 K	4.63 M
Antena Tres	Radio	3.5 K	871 K
Onda Cero	Radio	2.8 K	456 K
Cope	Radio	1.8 K	1.16 M

Table 3. Direct relationship between publications and interactions.

During the time frame of the investigation, users interacted about COVID-19 with multiple tags. In this sense, # coronavirus was the most used tag during the three months of the study with more than 3.97 million interactions, followed by # last hour (2 M) and # COVID-19 (1.57 M).

One of the events with greater social relevance was the prominence acquired by health workers. In Spain there was a social movement during the state of alarm in recognition of health staff for the work they were doing. This action took place every evening at 8:00 p.m. with applause from citizens from the windows of their houses and being reflected in social networks with the label # AplausoSanitario. Regarding this important issue, we observed how users of social networks also promoted their recognition and tribute with the creation of the special label # AplausoSanitario, which attracted more than 432 K interactions (see Table 4). In relation to other hashtags of a social nature, it is appropriate

to highlight that # YoMeQuedoenCasa and # AplausoSanitario are tags that are not found in the TOP10 of media publications; however, they do attract a high rate of interaction on the part of the digital community on social networks.

Table 4. Hashtags (#) with the highest rate of interactions in Twitter.

# Hashtag	<b>Total Interactions</b>	
# coronavirus	3.97 M	
# últimahora	2 M	
# COVID19	1.57 M	
# CoronavirusEspaña	1.56 M	
# Urgente	673 K	
# YoMeQuedoEnCasa	596 K	
# Covid_19	476 K	
# Pandemia	465 K	
# AplausoSanitario	432 K	

### 3.2. Links between the Death Rate, Publications and Interactions

As in any serious health crisis, the perceived social risk of a significant increase in mortality or an abnormally high mortality rate must be considered in any response plan [40], making communication a key factor in its management [41] WHO, (2004). Given the current reality, where social networks have become essential elements in the experience of the individual when finding out about the news [42], an attempt was made to relate the social perception of risk with the demand for information—and the feelings generated for the same–and the increase in the number of deaths according to the data provided by the Ministry of Health. We can see how the three chosen parameters evolve showing similar curves (see Figure 2), although the graphs of the publications and interactions precede that of victims by 15 and 7 days, respectively.

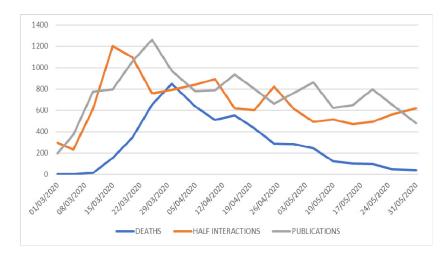


Figure 2. Relationship between death rates, publications and interactions.

In general, we can see that social issues have a greater attraction among network users, ranging from those related to aspects of solidarity or recognition of work carried out by institutions or citizens, to those testimonies with evident personal and human significance. The interest generated by international news is striking, especially at the beginning of the pandemic, when the regular international news sections displaced those related to national politics or even sports coverage, leisure or entertainment. Although only the twenty publications with the most interactions in each social network are studied, according to the data obtained from the analysis carried out, it is striking that users do not show any predilection for those issues related to government management or everything related to technical aspects of COVID-19 and its vaccine. Regarding the differentiation of the topics according to the different social networks, political and management issues are more profuse on Twitter; on Facebook, as already mentioned, they show a greater interest in international news; while on Instagram the contents present an obvious social character.

A study of the 20 publications with the greatest interaction by social network was carried out in order to classify the topics with the greatest interest for the public, subsequently segmented into the following thematic blocks: management/government, vaccine/virus, international and social.

The most demanded publications on Facebook bring together international information, whereas on Twitter we find somewhat more varied, general and current topics. On Instagram we observe a trend of a social nature and on YouTube we have more analytical and in-depth content about COVID-19 mainly through in-depth interviews. (see Table 5).

Social Media with the 3 Top Publications	Media Posting the Publications	Total Interactions Views in the Case of YouTube
Facebook	El Mundo	470 K.
Facebook	El País	139 K.
Facebook	ABC	98.9 K.
Twitter	ABC	57.3 K.
Twitter	El Mundo	56.3 K.
Twitter	El Mundo	52.3 K.
Instagram	El Mundo	58.9 K.
Instagram	El Mundo	56.5 K.
Instagram	El Mundo	53.8 K.
YouTube	El Mundo	60.8 K.
YouTube	El Mundo	41.6 K.
YouTube	El País	32.1 K.

**Table 5.** Top 3 publications with the highest interaction by social media.

The printed press managed to gather a higher number of interactions with its news. The Facebook post with the highest interaction rate is by El Mundo (470 K), followed by El País (139 K) and ABC (98.9 K). It is relevant that the topic of the three news items is international in nature.

On Twitter, the ABC newspaper profile had the highest rate of interaction with the publication of Ernesto Sevilla, a Spanish comedian who has programs on television and social networks and donated 10,000 euros to the Hospital of Albacete (his city of origin) for the pandemic. (57.3 K). This was followed by El Mundo (56.3 K and 52.3 K) with a publication of a social nature and about the end of the peak of the epidemic in China, respectively.

On Instagram, El Mundo manages to position three publications as the ones with the highest interaction rate. The first and second related to two protagonists who give a fisrt-hand description of their hospital admission for COVID-19 and the third reflects the day-to-day life of a mother with her autistic child. In this sense, this newspaper is the leader of all those analyzed in this social network, monopolizing in these three publications with more than 174.1 K of interactions. The use of eye-catching photos and videos can serve as an argument to explain the success achieved.

In the case of Youtube, El Mundo obtains the highest interactions too, although El País has the third place in impact. El Mundo includes here a testimony by Iker Jimenez, a sensationalist journalist talking about his experiences during the lockdown, whereas El País talks about the research for a vaccine in a Spanish Lab; two different approaches to achieve the highest interactions.

The evolution of the themes during the three months of the investigation shows an evolution in the interests of the audiences. Taking as a reference the 20 publications with the highest interaction rate in the four social networks, the qualitative research has reflected a greater variation in the topics discussed during the month of March (see Table 6). For the first two weeks, attention was drawn to the virus in China and its arrival in Italy; During

the third week, the most followed topics were the proclamation of the state of alarm, the deaths, the confinement and the "Stay at home" campaign; and in the last week of March, the extension of the state of alarm, aid from companies and celebrities, and aspects related to health material took center stage.

Media	March 2020	April 2020	May 2020
Week 1	COVID-19 starts in Italy. Final phase of COVID-19 China	Virus Spread COVID-19 technical issues Social testimonials	Committee of experts/Fernandc Simón State of alarm Government management
Week 2	End of COVID-19 China. Madrid closes establishments	Social testimonials Lockdown Government management	COVID-19 Fernando Simón Casserole COVID-19 Portugal
Week 3	State of alarm Deceased/Confinement Stay at home campaign	COVID-19 Italy Health material Government management Relaxation measures	Casseroles and demonstrations Use of masks
Week 4	Extension of alarm status Aid from companies and celebrities Health material	COVID-19 Portugal PCR test social testimonials	Political conflict. New social testimonies

Table 6. Topics with the most interaction from March to May 2020.

In the month of April, we observed how, noticeably from the second week on, references to government management began to be a constant, and abundant social testimonies also appeared of how people have suffered and defeated the virus in its different phases. It is in the month of May when the government's management begins to receive criticism, appeals to caceroladas and protest demonstrations arise. Likewise, it is during the first two weeks when Fernando Simón, director of the National Center for Health Emergencies of Spain, becomes the protagonist of many publications, being the only technical interlocutor of the government before the media and having finalized joint appearances of the institutional and technical representatives in the daily press conferences.

The media, in a generalized way, included other news items outside of the object of study on their agenda, which achieved an outstanding number of followers. Noteworthy are those related to the death of the artist Luis Eduardo Aute, a prestigious Spanish musician, filmmaker, sculptor, painter and poet who lost his life at the age of 76 after suffering a heart attack and also of the politician Julio Anguita, one of the leaders of the Spanish communist party; the renounce of King Felipe VI to his father's inheritance; and at the international level, the prohibition by law of female genital mutilation in Sudan. Influencing the social aspect of Instagram, for illustrative purposes it is worth highlighting the prominence taken by the death of the young man Alex Lecquio, son of the actress and presenter Ana García Obregón and the aristocrat Alessandro Lecquio. Alex Lecquio died at the age of 27 after suffering from cancer, this being the topic not related to COVID 19 with the greatest dissemination on this social network.

### 3.3. Adaptation of the Kübler-Ross Model to the Object of Study

The adaptation of the Kübler-Ross model to the object of study allows the identification of the following communication phases:

Denial (from 1/3 to 12/3). This first period begins in the days prior to sporting events, political events and demonstrations called, especially on the occasion of International Women's Day, celebrated on 8 March. On that date, numerous indicators of denial of the viral reality of COVID-19 are concentrated. We observed how the presence of COVID-19 in the media occupies a secondary place in their media agenda and users barely showed any real interest about the virus in Spain. Some of the hashtags with the highest rate of interactions in this period were # feminism and # díadelamujer. However, at the end of this stage, we find a change in trend, in which an interest in information about the pandemic begins, especially from China and Italy.

Acceptance (from 3/13 to 3/28). The acceptance phase can be recognized by the considerable increase in citizen interest and the profusion of information generated. It coincides with the proclamation of the state of alarm (14 March 2020) that confirms the exceptional nature of the situation. The media and users are constantly producing and consuming news on the subject. Faced with the new reality of confinement, society is aware of the risk of the situation and the need to accept extreme measures. This stage is reflected by the most used labels: # YoMeQuedoEnCasa, # Quédateencasa, # Aplausosanitario and # Estadodealarma.

Resignation (from 3/29 to 4/26). This phase begins to be seen in the media and users after the second and successive extensions of the state of alarm. The media continue to produce information in this regard, with COVID-19 as the main focus of information. Users back it up with a high engagement rate. Network users have already adapted to the new life and express themselves with hashtags such as # CoronavirusEspaña, # Covid19 and # Coronavirus.

Anger and depression (from 4/27 to 5/31). These two phases are coincident in time. Information and comments critical of the situation and the management appear which, significantly during the first week of May, are reflected in a high level of interaction on news related to protest demonstrations and the "caceroladas" carried out by the citizens. In addition, a feeling of depression, discouragement and fear, increased by the economic risks, emerges throughout the different phases of the lockdown lifting. The most used hashtags are # Descalada and # Loestamosconsiendo, with opinions contradictory to the messages issued from government sources.

### 4. Discussion and Conclusions

During the last decade we have witnessed the constant adaptation by traditional media to the new communicative reality caused by the emergence of social networks. Despite a certain existential crisis at its beginnings, due to the fear of loss of relevance, its contents are part of the informational diet of users and gain prominence when they are disseminated by them. Although the economic profitability of these practices can be questioned, the search for virality or contagion that increases the dissemination of their news, and consequently of their influence, is unquestionable. Income is the key to business, but trust is the determining value of interactions, since citizens not only satisfy their need for information with their consumption, they also enjoy its transmission and their public judgment.

This research has reflected how the press sector has been the one that has obtained the best monitoring and interaction results in social networks related to its news about COVID-19. In the television field, it is revealing how, despite the greater activity of RTVE publications, Telecinco achieves a better level of interactivity; evidencing that the amount of news published and the virality achieved are not directly related. Regarding the radio sector, Cadena Ser obtains, in an outstanding way, the best results both in terms of activity and impact among its followers.

The study shows the suitability of Facebook as an information link platform, with 70.2% of all interactions, while Twitter, Instagram and YouTube reach, altogether, only 29.8%. The data obtained allows us to confirm the different uses of the different social networks under study and to deepen our understanding of the relationship between publication and acceptance. Twitter stands out for its number of publications, where political and government management issues are more profuse; while Facebook produces a better reciprocity and interaction rate. Instagram stands out for its social character, for reaching a relevant influence with images closer to the human side of the information.

We have been able to verify how social networks, in the face of a situation of perception of high vulnerability by the population, stimulate "the emotional response, rather than the rational one, when talking about something important for the user; group dynamics accentuate this effect" [43] (p. 121). In general, the themes related to aspects of solidarity or the recognition of work carried out by institutions or citizens, those testimonies with an evident personal meaning and affective focus achieve abundant interest and a long propagation in the networks. On the contrary, users show a lower predilection for matters related to political issues, government management or everything related to technical aspects of COVID-19 and its vaccine.

On Facebook, the publications with the greatest interaction are related to issues of an international nature. For its part, Twitter is full of those related to current affairs and the management carried out by the government, while on Instagram social issues are the protagonists and on YouTube reports and personal testimonies are the ones that attract the most interest.

In line with previous research, the results demonstrate the increase in the demand for information that, in times of uncertainty, the population requires [15]. A clear connection is identified between the rates of publication of posts on social networks, by the analyzed media, with the number of deaths registered by COVID-19, with the social perception of risk being an indicative ("sparker") of interest in the news (of the "priming"). This conclusion may contribute to the now classic discussion about the influence of the social agenda in the media, or the influence of the media in the construction of social reality [44].

The rates of interaction in social networks also coincide with the trend outlined in the rate of publication, although in the phase of "resignation" interactions begin to decrease, an aspect to be considered in the study of the capacities of citizen influence in political decision-making processes.

Despite the fact that in the initial stage a greater interest in the news about the monitoring of the pandemic in other countries was detected, especially in China and Italy, it has also been confirmed that journalistic coverage increases after the detection of the first case within the country [45].

Topics of conversation vary at different stages. # coronavirus has been the most used tag during the three months. We also observe social issues such as # YoMeQuedoEnCasa and # AplausoSanitario. The contents referring to the criticisms of the government's political management begin to gain relevance in the last week of April and are accentuated during the month of May. During the health crisis, the media have also obtained a high diffusion on the networks with other issues; in the case of televisions, the influence and prominence of entertainment programs is revealing.

In the part of the study that sought to identify the possible relationship between the number of publications and interactions with the number of registered deaths, an increase in activity on social networks with a time delay that oscillates between 7 and 14 days has been evidenced. Once again, the value of monitoring social networks as a reference to be considered in crisis situations is confirmed, where its monitoring makes it possible to adapt the communication plan to the concrete reality and a better planning of programmed actions. The possibility of locating messages temporally and geographically enables real-time maps to be drawn up that can be incorporated as a key piece of information in crisis management.

In this new scenario caused by the pandemic, there is a widely general opinion that the uses of information technologies have been reinforced for different purposes. Preventive, to counteract its spread, as recreational tools in moments of seclusion; but also, as conducive channels to carry out misinformation practices taking advantage of social uncertainty, or questioning the freedoms of individuals under the protection of a justified control through geolocation. Now it remains to be determined whether this new framework is configured "as a complementary, parallel or substitute sphere of the true sociopolitical reality" [46] (p. 11), as political action has been replaced by the political story and "the battle to dominate the story has become a priority of public diplomacy in all latitudes" [47] (p. 12).

The proposed diachronic analysis has made it possible to identify the evolution of the most relevant issues and identify different stages during the process by adapting the Kübler-Ross model. Regarding the quantitative dimension, a period of maximum activity was detected during the period from 12 March to the arrival of Easter from 6 to 12 April 2020. During this period, the media largely concentrated all their information on COVID-19; detecting a decrease in the intensity of publications and interactions by users from that moment and continuing until the end of the study time frame. However, during the three months it has been the central theme in all the media. Along the same lines, we can conclude that COVID-19 continues to be the central theme of the media during the different phases of disarray produced during the month of May, generating a high rate of publications and maintaining and monopolizing the attraction of users in the networks.

Continuing this line of research, in future works we will seek to deepen the identification of information flows and the identification of the nodes and influential people of the network that stimulate virality. The objective will be to confirm and, where appropriate, refine, proposed user taxonomies based on the role they play in the dissemination of content. For which it will reflect on the social relationships between them from the previously established monitoring connections [48], it will investigate the possibility of applying predictive models of the growth of the diffusion of certain arguments and the possibility of detecting environments with a higher probability of transmitting erroneous information [2].

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