Review

Digital Citizens' Feelings in National #Covid19 Campaigns in Spain

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Abstract: (1) Background: Spain launched an official campaign, #EsteVirusLoParamosUnidos, to try and unite the efforts of the entire country through citizen cooperation to combat coronavirus. The research goal is to analyze the Twitter campaign's repercussion on general citizen feeling. (2) Methods: The research is based on a composite design that triangulates from a theoretical model, a quantitative analysis and a qualitative analysis. (3) Results: Of the 7357 tweets in the sample, 72.32% were found to be retweets. Four content families were extracted: politics, education, messages to society and defense of occupational groups. The feelings expressed ranged along a continuum, from unity, admiration and support at one end to discontent and criticism regarding the health situation at the other. (4) Conclusions: The development of networked sociopolitical and technical measures that enable citizen participation facilitates the development of new patterns of interaction between governments and digital citizens, increasing citizens' possibilities of influencing the public agenda and therefore strengthening citizen engagement vis-à-vis such situations.

Keywords: Digital citizenship 1; Twitter 2; e-participation 3

1. Introduction

In 2020 the Covid-19 pandemic affected society the world over and had a direct impact on governments and citizens alike. Social contexts of all kinds underwent sudden changes, confinement orders met with resistance, and infection numbers, death tolls and news of a possible upcoming economic crisis sowed uncertainty. In response, governments not only rolled out health safety measures, but also launched citizen awareness campaigns, choosing the Internet and social networks as their preferred media.

In our increasingly high-tech digital society, governments everywhere are implementing sociotechnical measures [1] to deal with the various sociopolitical and economic challenges facing them [2], and this is facilitating the creation of new connections and patterns of interaction among governments, citizens and technology [3]. Never has it been so important to be able to rely on citizen participation to solve a public health problem. In fact, an increase in the awareness that citizen participation can contribute to and support public health policies has been observed [4]. The earliest examples can be found in government initiatives to strengthen digital participation through the generation of a deliberation and decision-making process that enabled citizens to decide how public spending was budgeted (electronic participatory budgeting). Governments around the globe and cities like New York, Madrid and Paris ran electronic participatory budgeting initiatives [5].

The concept of digital citizenship [6, 7] has many meanings. It may be looked at from a technology-based perspective or from a perspective that includes sociopolitical elements [8,9]. The concept evolves from a focus on the digital component and the ethical,

responsible use of technology [10] to an emphasis on critical, civic, daily citizen participation [11]. We find ourselves dealing with a concept of democratic citizenship that includes a connotation of responsible citizenship [12], which involves actions of social and political participation oriented toward responding to social and economic problems, often outside the canons of the traditional concept of citizenship [13].

Networks not only make it possible to support interaction and communication processes in different spheres [14, 15, 16], but also can directly influence government decisions and even challenge laws and legislative changes [17]. In fact, it has been observed that the web may be influencing citizens' civic commitment [18, 19] in the development of participatory processes and affecting the development of interaction and participative communication between the political agenda and citizens.

Not only are citizens able to organize and challenge the official line or dominant discourse [20]; governments, too, may counter by posting arguments of their own. Governments, social movements and public institutions the world over have been observed to use networks to contact society [21]. The data show, for example, that international public administrations with health responsibilities have Twitter profiles [22].

Twitter has been considered an especially important social network during the Covid-19 health emergency [23]. Twitter is used more than any other network in Spain to discuss sociopolitical affairs [24], and the government has been observed to use Twitter to spread information related with administrative issues and press conferences, although without facilitating any true interaction between government and citizens [25, 26]. Much research has been published in the last year tracing relationships between Twitter usage and aspects related with Covid-19: the impact of confinement on citizens [27], Twitter and the detection of signs alerting to the first of the Covid outbreaks [28], the effect of risk perception on social distancing [29], information on aerosols [30], the relationship between topics covered on Twitter and the feelings thus created [31], misinformation [32], Twitter as a tool for doctors to communicate with each other [33], communication among people with various illnesses during the pandemic [34] and alcohol consumption during the pandemic [35].

In this article we consider that research based on the dissemination of Covid-19 information over Twitter can be a helpful tool for public health institutions and governments in the development of communication protocols for health emergency and risk situations [36]. This makes it especially important to analyze the new Twitter-based relationships between institutions and citizens and to learn how well initiatives are working. For this reason, we have analyzed the public health campaigns launched by the Spanish government during the pandemic period as a subject of particular interest. From March to December 2020, the Spanish government used the Internet and especially Twitter to launch five campaigns related with Covid-19. The main campaign objective was to raise citizens' awareness of the effects of the virus and to create a feeling of unity among Spanish men and women as they faced the grave situation. The five campaigns were: 1) #EsteVirusLoParamosUnidos (United We'll Stop This Virus), 2) #SalimosMásFuertes (We're Coming Out Of This Stronger), 3) #EstoNoEsUnJuego (This Is No Game), 4) #GripeYoMeVacuno (Flu I'm Getting My Shots) and 5) #ElMejorRegaloEsCuidarnos (Taking Care Of Ourselves Is The Best Gift). In this article we analyze the #EsteVirusLoParamosUnidos campaign, whose objective is "to unite the efforts of the entire country in the fight against coronavirus and to provide incentive for social distancing measures" [37]. The general research objective is to analyze general citizen feeling about the official Spanish Covid-19 campaign #EsteVirusLoParamosUnidos. The specific objectives are:

1. To study the communication system used during the discussion generated by the campaign.
2. To identify the main themes aired in public deliberation.
3. To ascertain the prevailing emotion associated with each theme.
4. To examine the connection between citizens' discourse and the social reality citizens were experiencing at the time.

2. Materials and Methods

2.1. Population and sample

The #EsteVirusLoParamosUnidos campaign was selected for analysis for two funda-mental reasons: first, because it was the Spanish Ministry of Health's first Covid-related campaign; second, because its objective was primarily collaborative, inasmuch as it sought to unite citizens in the fight against coronavirus while at the same time strengthening so-cial distancing measures, which could favor citizen engagement in confronting the prob-lem.

Therefore, this research analyzes usage of the Twitter social network in connection with the #EsteVirusLoParamosUnidos hashtag.   Tweets were selected from the time be-tween September 12, 2020, and October 16, 2020.   The sample contains a total of 7357 tweets, after 1310 tweets were discarded because they failed to offer information related with the topic of study.   The original sample therefore contained 8667 tweets.   Among the 7357 tweets selected, there is a total of 3675 users who participated in the dissemina-tion of the #EsteVirusLoParamosUnidos hashtag through direct tweets or retweets (RTs).

2.2.   Design and instruments

The research is based on a composite triangulating design involving a theoretical model, a quantitative analysis (descriptive analysis) and a qualitative analysis (discourse analysis, following the principles of grounded theory).

The Twitter Archiving Google Spreadsheet 6.1.7 (TAGS) application was used to gather data.   The SPSS Statistics package, version 24, was used for statistical analysis, and Atlas Ti HM software, for discourse analysis.

The descriptive analysis was used to extract frequencies and quantitative data about participation and the communication system used in the discussion (tweets sent, retweets, linking).   After thematic coding was completed, the main themes involved in public de-liberation were subjected to frequency analysis and percentage analysis.

Discourse analysis [38] was used to study the general feeling citizens displayed dur-ing public deliberation, the prevailing emotion associated with the identified themes and the connection between discourse and the social reality experienced at the time.   This analysis was performed in three stages [39,40]:   definition of the content universe and sample selection, selection of the unit of analysis and, lastly, establishment of categories and codes.   To wind up the analysis, an overall concept map of the theme and categories and a concept map for each family analyzed are presented, indicating frequency of ap-pearance and density (the number of codes with which each item is related).   Quotes from highly representative tweets are included, identified in order by posting date. Hashtags in quotes are translated into English

Four families were extracted from the #EsteVirusLoParamosUnidos superfamily: politics, education, messages to society and defense of occupational groups (Figure 1).

3. Results

3.1. Communication system: retweeting, direct messaging and quoting.

Of the 7357 tweets making up the sample, 72.32% were found to be RTs, while only 19.74% were direct tweets.   Messages with direct quotations using @ (messages in which one tweeter uses the "@user" structure to quote another tweeter) made up a smaller pro-portion (7.91%), which indicates a low level of interaction and/or response among partic-ipants within the #EsteVirusLoParamosUnidos campaign.   The data show that 68.62% of the messages included links.

3.2. Themes involved in public deliberation.

Four families were extracted from the 7357 tweets: politics, education, messages to society and defense of occupational groups (Figure 1).   In the "Politics" category, 13 major coded concepts were found referring to the country's leading political parties and their

senior national and regional officials (Figure 2). In the "Messages to Society" category, 13 concepts were coded (Figure 3). In "Defense of Occupational Groups," 14 significant concepts were present (Figure 4). Lastly, in "Education" five significant concepts were found (Figure 5).

"Messages to Society" was the most frequent theme (65.07%). "Defense of Occupational Groups" held second place (42.47%), and the last positions belonged to "Politics" (34.18%) and "Education" (3.97%). Each of these categories was coded as indicated in table 1.

Table 1.   Theme analysis.

Category	Coded concepts	Frequency	Total
Politics	Negationists	12	927
	Criticism and social anger	68	
	Politics	847	
Defense of occupational groups	Health and science	301	2449
	Law enforcement	1778	
Messages to society	Official data	1193	3752
	Prevention and health measures	2300	
	Social cohesion	259	
Education		229	229
Total			7357

3.3.   Emotions expressed in public deliberation.

Qualitative analysis shows that the emotions expressed in the public debate under the #EsteVirusLoParamosUnidos hashtag range along a continuum. Feelings of unity, optimism, admiration and support are expressed, but so are feelings of discontent and criticism over the health emergency.

The feeling of citizen unity is observed to prevail over the negative consequences of the Covid-19 crisis. Tweeters share messages of support, trust and encouragement for all those who fight actively or passively against the virus and its consequences. These messages display optimism in the face of the pandemic's progress, under the firm conviction that "if we fight together" the crisis situation will gradually improve. This conviction is directly related with the feeling targeted by the campaign.

Other, albeit fewer, messages also appear that express feelings of admiration and support for the various occupations that help improve citizens' lives every day, especially during the health crisis. Thanks for health workers, scientists and law enforcement workers are predominant.

At the other end of the continuum we find a large number of messages expressing anger, criticism and discontent. Tweeters use the social network as a means of delivering sociopolitical denunciations of the government's handling of the pandemic or the conditions of their own particular working environment, but to a greater degree as a more or less therapeutic way of expressing their own negative emotions.

The communication style of the messages in the sample is generally reconciliatory and does not seek direct confrontation. The feelings and emotions conveyed by Twitter users in the categories yielded by message analysis are specified below.

In studying the emotions generated in each category, we observe that messages in the "Politics" category express criticism and discontent in response to the situations users have experienced due to Covid-19 and in response to how politicians are handling pandemic-related situations ("The caliber of our politicians here in #Spain is 'unreal!' Cringing so hard I've had to stop. It's harmful to your intelligence..." [T2332]). Arguments are waged in which tweeters take political or ideological positions, sometimes using hostile or aggressive expressions ("The numbers show how wrong @IdiazAyuso is. As irresponsible as she is stubborn" [T6137]; "It's always the same with Communists; first they lie, and then they say it's our fault… 😖 …" [T4461]).

Communication style in the "Messages to Society" category maintains a reconciliatory tone fostering social cohesion. The messages fan group feeling throughout Spanish society, seeking to band people together against the common enemy of the pandemic ("Viruses don't discriminate. They don't see origins or ethnic groups. We people shouldn't, either…" [T4503]; "The battle against #Covid_19 will be long, but we'll win it with empathy and unity…" [T3860]).

The "Occupational Groups" category contains union messages defending public sectors and asserting workers' rights. They are critical but polite, weaving ties of support among their posters, who call for help to withstand the Covid-19 crisis. "Health" and "Science" are the fundamental pillars ("@IreneMontero Why don't you fight for members of the Civil Guard or the police to earn the same as members of the *Mossos* or *Ertzainas[1]*? Liars…" [T383]; "Pharmacists release an urgent manifesto defending their role in the fight against Covid-19…" [T1906]; "Jobs need tourism…" [T351]).

Lastly, the "Education" category is home to a functional discussion employing an objective, informative communication style to talk about measures and data concerning the return to face-to-face instruction and new distance education formats. The category includes messages supporting the education sector as it braces for reopening schools ("Are we well informed about the precautions we have to take to avoid classroom infection? Here's our Basic Prevention Guide for Schools…" [T933]).

3.4. Analysis of the connection between discourse and the social reality citizens experience.

The next step is to explore how the discourse generated around the Ministry of Health, Consumer Affairs and Social Well-being's #EsteVirusLoParamosUnidos hashtag is connected to the social reality that citizens experienced in September and October. We find four main categories, "Politics," "Messages to Society," "Defense of Occupational Groups" and "Education," which are made up of certain significant contents and messages whose connections with social reality are analyzed closely below.

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[1] "*Mossos d'Esquadra* are the Catalonian regional law enforcement authorities. *Ertzainas* are the Basque regional law enforcement authorities. Civil Guard and National Police are national law enforcement authorities."
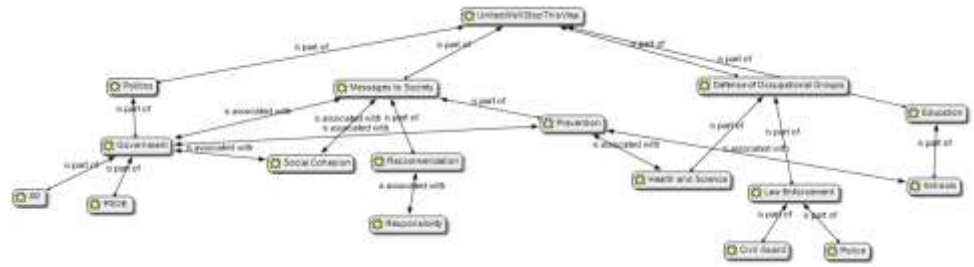
Figure 1. Overall concept map of #EsteVirusLoParamosUnidos with three levels.

The "Politics" category contains most of the messages addressed to the leading governing and opposition political parties, PP, Podemos and PSOE. Arguments are waged back and forth from the various party-based political positions, and party leaders are referred to directly. Among the messages of support for the government led by Pedro Sánchez and the PSOE-Podemos coalition, some are brief and concise, including only references to satisfaction with the current government and its leaders. Nevertheless, most messages of support for and trust in the coalition government include ironic or hostile messages against opposition parties. Messages about the privatization of healthcare by the Partido Popular in previous legislatures and direct references to the President of the Community of Madrid, Isabel Díaz Ayuso, have the greatest repercussion ("Defenseless people of Madrid suffering under the Bolivarian red/Podemos dictatorship in a cruel state of alarm. It's a mess. #AyusoResign…" [T2421]; "Never forget the ravages of the PP in Public Health…" [T2436]). Tweet T2436 shares a one minute and fifty-one-second video alternating between Spanish television news reports on the Partido Popular's privatization of healthcare and sound bites from the Partido Popular's general secretary, Pablo Casado, criticizing the Spanish government's handling of the Covid-19 health crisis. The "Politics" category also contains messages from tweeters who take the opposite stance: they rail against the current government with hostile messages categorizing the members of the government as "manipulators," "Mafia goons" and even "psychopaths." Some refer to a newspaper article written by Pilar Díez [41] and published by *Libertad Digital*, which reviews an assortment of the main headlines and opinions appearing in Spain's most influential newspapers (*El Mundo, El País, ABC* and *La Razón*) about the handling of the pandemic during the early stages of social confinement.
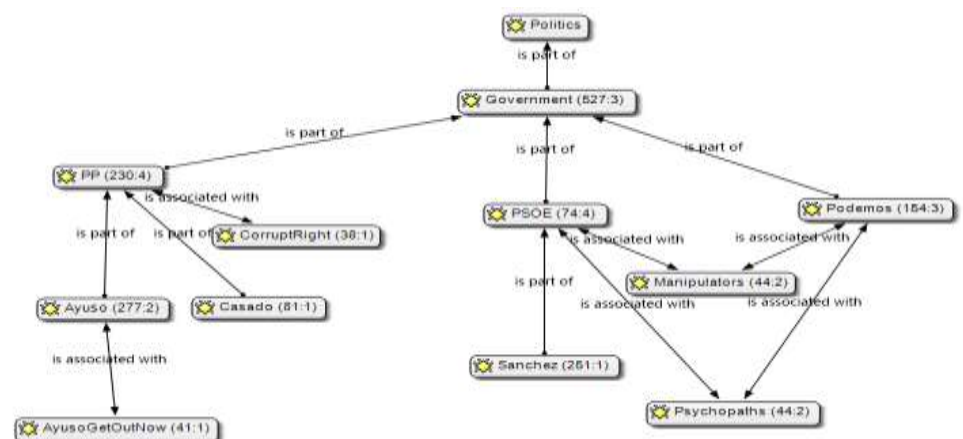

Figure 2. "Politics" category.

"Messages to Society" features prevention as one of the core ideas. Tweets encourage responsible behavior and share recommendations for combating the Covid-19 pandemic, primarily in terms of taking safety measures ("Masks are mandatory 😄 Stay a safe physical distance away from others 🧍🧍. Wash your hands frequently ✋. Limit the

number and frequency of your social contacts 👪 👪" [T1796]).   We find information from official sources (national government authorities, local government authorities, unions, etc.) reporting on the pandemic's development in different regions, cities and towns ("🎞 @CiudadDepGc reminds us that we all have to do our part by complying with protective measures😄 [T2843]").   A great many messages of support, encouragement and group feeling seek, through social cohesion, to foster hope and citizen unity in the face of the health crisis ("We have a lifetime to remember that, in hard times, standing firm together, Spain was a great country." [T3524]; "the strains of 'Resistiré'² are the soundtrack of the #CollectiveApplause³" [T271]; "👏 👏 👏 👏 👏 👮 👮 🏢 🚑 Thank you for taking care of us." [T990]).

The data also reveal initiatives and social acts by private institutions to thank society for making an effort.   One example is the thankful homage rendered at the headquarters of the Vocento communications group on September 24, 2020, where the group's CEO Ignacio Ybarra said, "The immense wave of solidarity that's flooded our country is surely the best antidote for beating the virus" [42].
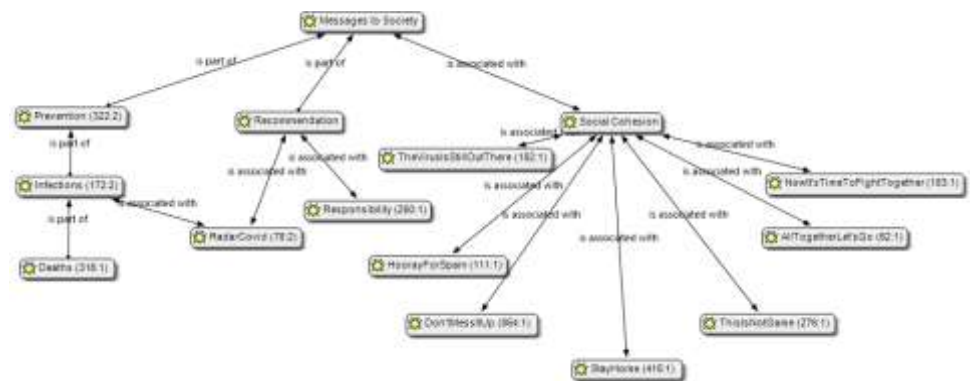

Figure 3.   "Messages to Society" category.

In third place, the "Defense of Occupational Groups" category contains messages intended to highlight the importance of certain occupational groups in society.   These are messages of support from different organizations and private individuals who praise the work of particular occupational groups and call for aid to help ride out the Covid-19 crisis.   The messages place special emphasis on science and health as fundamental pillars for combating the coronavirus pandemic.   We find three main foci: national law enforcement, health and science.

The tweets in "National Law Enforcement" consist in citizens' messages encouraging and thanking the various national law enforcement corps and messages posted by members of these occupational groups ("local and municipal police work to give you safety 24 hours a day, 365 days a year. #WeWorkToProtectYou…" [T5912]; "#OurBlueAngels 🤍 …" [6179]; #OurGreenAngels🤍" [T6181]).

One of the high-impact thematic hubs is due to JUSAPOL, an association advocating equal pay for police.   Although the themes of these tweets are not directly related with the Spanish government's campaign, their tweeters have joined the campaign to take advantage of the visibility afforded by participating in the hashtag.   Two main thematic foci refer to law enforcement collectives.   The first is a demand for equal pay for all national law enforcement agencies, leveling up to the same salary as the *Mossos d'Esquadra.* The second consists of messages of indignation and protest against the prime minister's

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² "Resistiré" (I Will Survive), Spanish hit song from 1988.

³ #AplausoColectivo: Nationwide applause every evening to thank health workers and keep spirits high during confinement.

statements expressing condolences for the death of a prisoner belonging to ETA. These statements upset citizens at the time, and associations like JUSAPOL called demonstrations and protests for September 16, 2020 [43], creating the #YoSiLoLamento (IReallyAmSorry) hashtag, which we observe in thousands of online messages ("They're our government's friends. What did you expect? 😺 #IReallyAmSorry…" [155]; "ETA will cease to exist when the people the TERRORISTS killed come back to life! #IReallyAmSorry…" [T6194]).

In "Health and Science" we find pro-public health messages defending the belief that the quality of the Spanish health system resides in the professionalism of its members ("The secret: good professionals, good attitude 👏👏…" [T1306]; "Thanks for taking care of us…" [T2952]). References are made to health workers' hard work, and citizens are called on to respect preventive measures so as to help decongest hospitals under the motto "Cuida a los que te cuidan" (Take care of those who take care of you). In September 2020 the National Council of Spanish Medical Associations warned of the health system's difficult situation, which it described as "borderline" or "overrun." The council also tweeted its concern over health workers' state of "physical and emotional exhaustion" [44]. Carlos Artundo, Director-General of Health for the region of Navarre, voiced his concern over health workers' own health; he said that in late September they began to experience "chronic tiredness" [45] ("Either we all try to do better, or this is going to be a slow death. And health workers are already exhausted…" [T5530]; "There are a lot of us behind each #PCR test🔖…professionals who have switched jobs to keep this #Pandemic in check, in coordination as a #Team. So #TakeCareOfThoseWhoTakeCareOfYou…" [T5884]).

The "Heath and Science" category also contains mentions of the important work being done by science and professional scientists. This is interesting, because at the time high hopes for products like the Johnson & Johnson vaccine had just been dashed: On October 13, 2020, testing was stopped due to an "inexplicable illness" detected in one of the volunteers [46]. Nevertheless, citizens continued to display their optimism and confidence in the people tirelessly fighting and struggling to find an antidote to stop the grave worldwide health crisis, with messages like "SinCienciaNoHayFuturo" (WithoutScienceThere'sNoFuture).
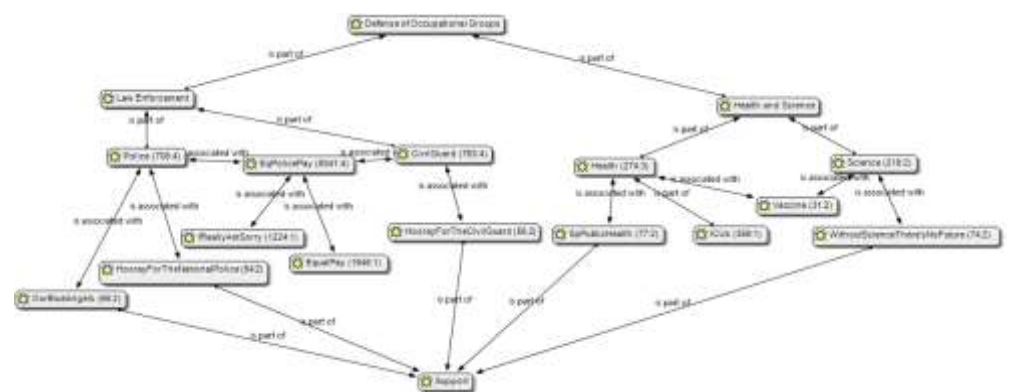

Figure 4. "Defense of Occupational Groups" category.

The last category "Education," refers to the education sector. Most of the messages in this category have to do with primary education. Some concern back-to-school safety measures for the 2020-2021 school year and give data on the incidence of the virus in the first few weeks of school ("…don't forget your Covid Kit. Wear a mask and carry a spare. →Disposable tissues. →Hand sanitizer. →A bag or fanny pack to carry it all in…" [T3449]; "…a hundred students placed in isolation in just one day…" [T5672]; "…we

invest in a range of resources to ensure that families can send their children to school with peace of mind…" [T4420]).

Furthermore, soon after digital technologies were heralded as the perfect way to keep classes running safely during confinement, messages appeared about the conversion to digital teaching and the need to adapt to on-line instruction ("Chambers of commerce offer free webinars about new technologies, #digitalization and #innovation to adapt to the current situation's needs…" [T4648]).
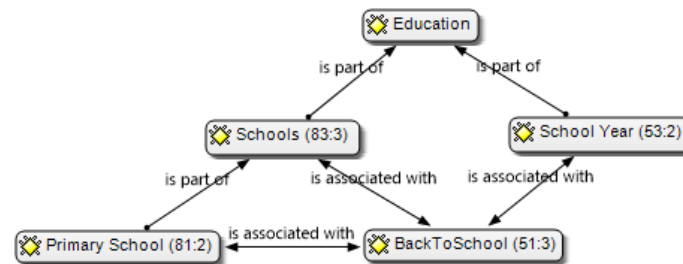

Figure 5. "Education" category.

4. Discussion and conclusion

To combat coronavirus, the Spanish government started the #EsteVirusLoParamosUnidos campaign, which sought to seek the solution to this public health problem through citizen cooperation and the integrated efforts of all.   The medium chosen to launch the campaign (Twitter) demonstrated an increase in the value the government places on the importance of citizen participation in drumming up support for measures [4], because impact on Twitter is impossible without citizen cooperation.

The conclusion is that the general citizen feeling in the Spanish #EsteVirusLoParamosUnidos campaign is a feeling of unity and optimism against the social reality caused by the Covid-19 health crisis.   Nevertheless, we do find messages that convey discontent and anger over the detrimental work-related consequences for citizens and messages of discontent over the government's handling of the crisis. The feelings of the tweeters who have participated in the ministry's campaign are polarized, a fact that reflects the reality of Spanish society and has become accentuated during the pandemic [47].

The communication system has focused on spreading messages for two purposes: due to the objective interest of the information they contain (official data on infections, health recommendations to prevent the effects of the pandemic, etc.) and/or for the purpose of backing certain political ideas or social demands (defense of public sectors, equal pay for law enforcement agencies, etc.).   The communication process has focused on the use of RTs; this indicates a low intention of interaction and/or discussion.   The government uses the Twitter network more to spread information than to interact with citizens [25].   However, the conclusion is that the campaign has achieved the objective for which it was created, "to unite the efforts of the entire country in the fight against coronavirus and to provide incentive for social distancing measures" [37], and citizens have answered the call by retweeting.   New kinds of connections and patterns of interaction have been generated between the Spanish government and citizens via Twitter [3], although they are based primarily on spreading information about health safety measures that the government wants the population to know instead of establishing a true give-and-take.

The themes around which discussion revolves are subjects of great political, economic and social importance, of interest for all of society.   This shows the influence between citizens and the political agenda (5).   Four main thematic hubs are identified: "Politics," "Messages to Society," "Defense of Occupational Groups" and "Education."

Tweet content shows a clear connection between the discourse of the citizens who participate in public discussion and social reality as they experienced it when they tweeted.   In the first group, "Politics," the discourse revolves around two very different

feelings marked by the social context of the period under analysis.   On one side, there are messages from tweeters who side with the opposition to the government; they criticize its handling of the pandemic and feel that the government is manipulating the media. On the other side, there are messages of support for the national government; they take a stand against measures implemented by the governments of certain regions, such as the privatization of healthcare centers in Madrid.

The second theme is what we have termed "Messages to Society."   There we glimpse a reflection of the feeling of social unity that arose in Spain in response to the health crisis, as shown in acts such as the daily 8:00 PM applause for health workers and the multiple messages that encouraged people to keep combatting the virus and reminded people of the measures to take to win the fight.   The fourth thematic hub, "Defense of Occupational Groups," contains messages of citizen support for health workers and scientists, proclaiming the quality of public health as one of Spain's most significant values. In addition, tweeters appreciate and applaud the work of national law enforcement. There are several thematic foci related with these groups.   They stray from the main theme embraced by #EsteVirusLoParamosUnidos; some tweeters use the hashtag as a means of increasing the visibility of their own demands (equal pay, protests against the government, etc.).   Lastly, content in the "Education" category is remarkably sparse, considering the resumption of face-to-face instruction during a school year marked by Covid-19-related restrictions.

To sum up, the development of networked social/technical measures [1] and sociopolitical measures that enable citizen participation facilitates the development of new patterns of interaction between governments and digital citizens, increasing the possibilities of influencing government decisions and the public agenda and the possibilities of strengthening citizen engagement to cope with health emergencies.

6. Patents

Author Contributions: Conceptualization: S.S.C. and J.G.Q.; methodology: S.S.C. and J.G.Q.; software: S.S.C.; validation: S.S.C., L.R. and J.G.Q.; formal analysis: S.S.C. and L.R.; investigation: L.R., S.S.C. and J.G.Q.; resources: S.S.C., L.R. and J.G.Q.; data curation: L.R., S.S.C. and J.G.Q.; writing—original draft preparation: S.S.C., L.R. and J.G.Q; writing—review and editing: S.S.C., L.R. and J.G.Q.; visualization: L.R., S.S.C. and J.G.Q.; supervision: S.S.C. and J.G.Q.; project administration: S.S.C. and J.G.Q.

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

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