

Relationship between various uses of social networks, Twitter and Facebook, emotions and voting in Spain

Relación entre los diversos usos de las redes sociales Twitter y Facebook, emociones y voto en España

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ABSTRACT

Introduction: The objective pursued by this research is to determine if the diversified uses of social networks (Twitter and Facebook) in Spain have a relationship with the vote for political parties that citizens express, as well as with the presence of emotions towards leaders. If so, we could assume that the platformization is a politicized and emotional process and that this politicization and emotionality of the process links the type of use those citizens make of the networks. **Methodology:** This work has been proposed as a case study using a quantitative methodological approach that proposes both a descriptive and interdependency analysis of the data. **Results:** the analysis of the consumption of networks according to the vote shows the existence of a differentiated pattern according to the latter. A trend that is replicated concerning the specific use of specific networks. **Discussion:** The data regarding emotional expression of anger and fear agree with the positions defended in the literature. **Conclusions:** These findings are in addition to those already existing regarding the importance of networks as "echo chambers" that amplify the debates that occur in them, in a kind of "emotional spiral".

KEYWORDS: platformization, social media, Twitter, Facebook, political information, political participation, emotions, political leaders, Spain

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RESUMEN

Introducción: El objetivo que persigue este trabajo es analizar si los diversos usos que los ciudadanos realizan de las redes sociales (Twitter y Facebook) en España tienen relación con el voto a los partidos políticos y con las emociones que los ciudadanos sienten hacia los líderes. De ser así, podríamos asumir que la plataformización es un proceso politizado y emocionado y que esa politización y emocionalidad del proceso vincula el tipo de uso que los ciudadanos hacen de las redes. **Metodología:** Este trabajo se ha planteado como un estudio de caso mediante un enfoque metodológico cuantitativo que plantea tanto un análisis descriptivo e interdependiente de los datos. **Resultados:** el análisis del consumo de redes en función del voto muestra la existencia de un patrón diferenciado en función de aquel. Una tendencia que se replica en lo relativo al uso específico de las redes concretas. **Discusión:** los datos respecto a la expresión emocional de enfado y miedo concuerdan con las posturas defendidas en la literatura. **Conclusiones:** estos hallazgos se suman a los ya existentes respecto a la importancia de las redes como “cámaras de eco” que amplifican los debates que en ellas se producen, en una suerte de “espiral emocional”.

PALABRAS CLAVE: plataformización, redes sociales, Twitter, Facebook, información política, participación política, emociones, líderes políticos, España.

CONTENT

1. Introduction. 2. Objectives. 3. Methodology. 4. Discussion/Results. 5. Conclusions. 6. Bibliography 7. Curriculum Vitae 8. Annexes

Translation by **Paula González** (Universidad Católica Andrés Bello, Venezuela)

1. Introduction

The increase in the use of social networks has led to important changes in the way of exchanging information among citizens, but it has also changed how citizens relate to politics. In this sense, the platformization process (Helmond, 2015), a direct consequence of the proliferation of the use of social media, has had multiple consequences in politics that range from their very use, already indispensable in political campaigns, through leadership visualization or the configuration of new ways of communicating from party organizations and even from public institutions. All this has, in turn, had important consequences in how the relationship between citizens and politics is drawn, generating new dialogical spaces for communication and debate that represent challenges for reflection within democratic systems.

Spaces for debate and dialogue that have been defined by some as "echo chambers" (Sunstein, 2001) where, both by the running of the different algorithms that are behind the operation of each one of them, as by the way of user interaction in them; Conversations become endogenous, feeding back pre-existing opinions from the participants and generating a remarkable climate of tension and polarization (Colleoni, Rozza, & Arvidsson, 2014; Del Vicario et al., 2015; Del Vicario et al., 2017). A polarization that is a consequence not only of the intrinsic characteristics of social media but also of the fact that they have been constituted as public spaces of emotional contagion, in which feelings are analyzed and affections are expressed (Serrano-Puche, 2016).

But not all citizens use social media for the same purposes. And in this sense, there are two uses that, linked to politics, have been addressed to a greater extent by the literature: the use of social media to get informed or receive political information and their use to participate in politics. Two processes that, in turn, interrelate and complement each other, generating not only a differentiated consumption from that produced in the offline media (Bode, 2016), but also specific forms of online political

participation; which leads to differentiate the political behaviors that occur in both environments (Shahin, Saldaña, and Gil de Zúñiga, 2020).

From this perspective, it is essential to analyze the various uses Spanish citizens make of social media in general, some in particular, and the relationship that these uses have with the level of credibility that they grant them, as well as with the type of emotions they express towards politics. In general, it is a question of knowing if, as previous works have already pointed out (Wollebaek et al., 2019), the presence in social media for political purposes tends to reproduce negative emotions towards politics.

1.1. Political information and participation in social media

As we have mentioned, citizens use social media differently, standing out in the political sphere their use to receive political information or to participate in politics. Two uses that are related, since the consumption of political news in social media has direct effects on political participation (Gil de Zúñiga, Molyneaux, and Zheng, 2014); given that, although in the offline space the actions of getting informed and participating in politics take place separately, in the online space they take place one as a consequence of the other.

Participation in social media has been valued for the possibilities they pose for the expression of the level of political engagement of users with parties and political leaders; generating, as some point out (Norris, 2001), opportunities not known so far. This last issue has also been questioned, although it is not possible to develop along these lines the complexity that this debate entails.

But beyond these issues, it is not only important to point out the different uses of social media, but also the differences that affect such use, which would allow us to speak of a kind of "specialization" of each social media platform, something that can clearly be detached, not only from the use that citizens make of them but also from the use that, in the political sphere, the parties and their leaders make of them. Thus, and while Facebook has been considered a network commonly used as an instrument for mobilizing and creating communities (Stier et al., 2018), Twitter has been revealed as a means for the dissemination of news and content (Kwak et al., 2010), therefore more prone to debate and exchange of opinions; while Instagram has focused on the dissemination of visual or photographic content (Casero-Ripollés, 2018).

Part of the literature that has addressed the reflection on these different uses of social media, getting informed about politics, and politically participating, has focused on elucidating what happens with this consumption in terms of the previous opinions that users have. And in this sense, the design of a space in which participatory information is consumed projects the idea of building a community, largely the result of the production of the so-called "echo chamber" that causes users to tend to search for or follow online those opinions that tend to reinforce their previous positions (Garrett, 2009; Bail, 2016), a phenomenon that McPherson, Smith-Lovin, and Cook (2001) called "homophilia", and consequently avoid those opinions that may be contrary or even threatening.

This trend ends up causing a kind of "polarizing spiral" within social media that constantly feeds itself and highlights the importance that feelings, affections, or emotions, in short, the emotional component, have in the interaction process that occurs within them (Kramer, Guillory, & Hancock, 2014; Del Vicario et al., 2017). A polarization that, in any case, establishes differences depending on the type of social media, being especially relevant in the case of the Twitter platform, as pointed out, among others, by Yarchi, Baden, and Kligler-Vilenchik (2020).

1.2. Emotions and social media

Interest in the study of emotions has been growing in the last twenty years from different disciplinary fields. Specifically, in political science, its study, both from a theoretical and an empirical point of view, has been closely linked to the analysis of behavior; which in turn has connected it with the studies that have emerged in the psychophysiological field. In this field, one of the most prolific theoretical approaches that has seen a greater following in subsequent works is the Affective Intelligence Theory (Marcus et al., 2000), from which the authors lay the foundations of a whole construction regarding the emotional evaluation that individuals carry out in our daily lives when making decisions and, consequently, also in the field of politics.

But this vision of a cognitive nature is by no means the only vision that we can find of the analysis of emotions. In sectors closer to sociology and political science, other approaches have been developed that, from a culturalist perspective, have advocated the defense of emotions as a social construction (Harré, 1986; Elster, 2002), emotions would be socially constructed through different activation mechanisms, being necessary to know in-depth the societies in which they occur. We understand that both visions, cognitive and constructivist, are by no means exclusive, but rather complementary, and especially useful for understanding the study of emotions in the field of communication and more specifically, in the field of social media. And this statement is based on two fundamental facts, that social networks are ideal spaces for emotional debate and for building communities.

One of the aspects that has been emphasized in the study of emotions linked to communication is how the received information is consumed and processed (Neuman et al., 2018); since it has been shown that the consumption of political information in social media provokes strong emotional responses. This has led studies to delve into the type of specific emotions that are produced concerning the consumption of political information, this is the case of the analysis of fear and anger as negative emotions (Vasilopoulos, Marcus, & Foucault, 2018, Vasilopoulos et al., 2018) or enthusiasm (Marcus, 2019; Marcus et al., 2019) as a positive emotion.

Focusing on negative emotions, specifically fear and anger, some studies have highlighted the diverse impact that both would have on how social media users behave. Since, as Wollebaek et al. (2019) pointed out, while anger would lead people to search for information or to participate in debates with other people who share the same or similar points of view; fear, on the other hand, would lead people to seek diverse information, in an attempt to gain different points of view. And these two very different dynamics are nothing more than the result of two different processes of emotional activation: the first driven by risky behavior, and the second, by an aversion to it (Lerner and Keltner, 2001; Vasilopoulos, Marcus, and Foucault, 2018, Vasilopoulos et al., 2018).

Although within the positive emotions, pride and enthusiasm have been two of the most worked emotions, being outlined as emotional activators of action and political construction (Marcus et al., 2000; 2017); it has not been so in the case of hope, and much less in terms of tranquility. In the case of the first, since Weber alluded to its importance for the action of a political community, some works have deepened its analysis from the field of neuroscience (Botvinick and Braver, 2015;) and social psychology. These works draw hope as a tool of commitment and loyalty to an action or object, even when threats or expectations can divert the attention of individuals. Hope, thus, emerges as a supporter over time of individual or collective actions in society (Averill et al., 1991: 284), but also as encouragement of action (Lazarus, 1999). In particular, works such as that of Jones, Hoffman, and Young (2013) show how the perception of hope in a candidate increases the probability of political participation among individuals with high levels of media consumption.

Regarding the study of tranquility, it has been much smaller and even practically non-existent within political science and psychology, in part because a certain debate has been generated about whether we are dealing with an emotion or an attitude. It should be noted that this term has been used to describe emotional states of low excitement and positive valences, such as satisfaction and serenity (Fredrickson, 1998: 306) or feeling content; thus, having a transversal character to designate a pleasant emotional state (Cordaro et al, 2016). From the Affective Intelligence Theory, tranquility or calm has been assumed as an emotional state contrary to anxiety (Marcus et al., 2000: 56).

Our research tries to combine these views, starting from the idea that social networks are spaces for the consumption of information, prone to the exchange of messages with a strong emotional charge, which are also more likely to be shared between different digital communities (Brady et al. al., 2017; Knoll, Matthes, and Heiss, 2020). For this reason, and in line with previous works also based on demographic studies (Kramer, Guillory, and Hancock, 2014; Hasell and Weeks, 2016; Wollebaek et al., 2019;), we understand that it is essential to delve into the uses that citizens make of social media, with special attention to the type of emotions that are produced in them and the role that these play in the construction of online political behavior.

2. Objectives

The main objective pursued by this research is to determine if there is a diversified use of social networks in Spain, specifically Twitter and Facebook, and what is the relationship that such use has with voting for political parties (politicization) that citizens express, as well as with the emotional presence towards the main political leaders.

In turn, this objective would lead us to propose three initial research hypotheses:

- H1: The use of social media for political purposes, either to receive political information or to politically participate, is mediated by the political positioning of citizens.
- H2: there is a relationship between the type of social networks that citizens use and their political positioning.
- H3: the more proactive the political use made of social media, the greater the emotional expression that citizens feel towards political leaders.

3. Methodology

This work has been proposed as a case study and has been drawn up using a quantitative methodological approach that proposes both a descriptive and interdependent analysis of the provided data.

The analysis has been constructed through the exploitation and interpretation of the results extracted from the database created by the *Anonimizado*, entitled *Politics and Emotions study in Spain. February 2021 (EPEE, Feb. 2021)*. It is a complete study of a political nature that includes fundamental topics of scientific interest such as: consumption of offline and online media, analysis of the emotions expressed towards Spanish political leaders and parties, political cleavages, analysis of the political leadership, monarchy and democracy, trust in the political class and institutions, ... among many others. Next, in table 1, its technical details are provided.

Table 1. *Technical information from the database used in the analysis*

Year	Study name	Technical data
2021	<i>Politics and Emotions study in Spain. February 2021 (EPEE, Feb. 2021)</i>	Dates: From January 18 th to February 18 th , 2021. Universe: population over 18 years of age, resident in Spain. Sample size: 1000. Assumptions: p=q. Associated error: $\pm 3.17\%$. Allocation: proportional (gender and age quotas). Administration: by telephone through the CATI system.

Source: self-made

As already mentioned, for this research we have only worked with some of the variables of this large study. The central variables of our analysis are those related to the different uses that the Spanish population makes of social media; as well as variables related to the political position of the voters, through the variable vote recall in the last general elections held in November 2019; and the measurement of the emotional component towards politics expressed through the emotional presence towards the main political leaders that citizens claim to feel. The technical details regarding how to measure each of these variables are shown in Table 2.

We would like to dedicate a few lines of this section to briefly expose the importance and meaning that the analysis of emotions has not only in this demographic study but in all the works that the EIP-USC has developed. Thus, the empirical materialization of this component is based on a battery composed of thirteen emotions on which three fundamental issues are measured: the presence, intensity, and duration of emotional expression towards leaders and political parties. Twelve of the thirteen analyzed emotions correspond to the orthogonal full set solution proposed in the *Pilot Study ANES 1995* (Marcus et al., 2000): pride, hope, enthusiasm, anxiety, fear, worry, anger, resentment, disgust, hatred, contempt, and bitterness; to which one more has been added, tranquility². Following the authors, emotions can be grouped into three emotional components: a) Enthusiasm (positive): tranquility, pride, hope, and enthusiasm; b) Anxiety (negative): fear, disgust, worry, anger, and anxiety; and c) Aversion (very negative): resentment, bitterness, contempt, and hatred³.

² As the authors explain, since 1980, the study carried out by the ANES included only four emotions (two positive and two negative), in 1985 the battery was expanded to a total of twelve, adding a new positive item and seven negative ones.

³ For more information on these issues consult, *Anonimizado*.

Table 2. *Variables used in the analysis*

Variable	Measurement way	Type of variable
Regular user of social media	Are you a regular user of social media?	Nominal dichotomous, simple closed answers
Most frequently used social network to consult political information	What social network are you a regular user of?	Nominal polytomous, multiple closed answers Filtered (only if they claim to be a regular social media user)
Frequency of use of social media	And could you please tell me how often you use them?	Nominal polytomous, multiple closed answers
Use of social media to get informed about politics	Do you use social media to receive political information?	Nominal dichotomous, simple closed answers Filtered (only if they claim to be a regular social media user)
Frequency of use of social media to receive political information	On a scale from 0 to 10, where 0 is nothing and 10 is a lot, what is your use of social media to receive political information?	Scalar (0-10) Filtered (only if they claim to use social media to get informed about politics)
Use of social media to get informed about politics	Do you use social media to participate in politics?	Nominal dichotomous, simple closed answers Filtered (only if they claim to be a regular social media user)
Frequency of use of social media to participate in politics	On a scale from 0 to 10, where 0 is nothing and 10 is a lot, what is the use that you make of social media to participate in politics?	Scalar (0-10) Filtered (only if they claim to use social media to participate in politics)
Media credibility level	To what extent do you give credibility to the information received through the following media? On a scale of 0 to 10, where 0 means a lot and 10 a little.	Scalar (0-10)
Reasons for the media credibility level	What are the main reasons that would motivate such credibility?	Nominal polytomous, multiple closed answers
Vote recall	As you know, on November 10 th , 2019, General Elections were held. Could you tell me which party did you vote for?	Nominal polytomous, simple semi-closed answer
Emotional presence towards the main political leaders (Pedro Sánchez, Pablo Casado, Pablo Iglesias, Inés Arrimadas, and Santiago Abascal)	Think now about your emotions, about the emotions that politicians make us feel, even if we are not very conscious at times. I am going to quote you a series of politicians and I beg you to tell me if they have ever made you feel any of the emotions that I am going to tell you about.	Closed nominal dichotomous

Source: self-made

4. Discussion/Results

4.1. Preliminary analysis: uses of social media, vote recall, and emotions

We begin the preliminary analysis by presenting, in general terms, the use-values of social media in Spain today. As can be seen in diagram 1, 51.7% of Spaniards declare themselves regular users of social media, a fact that is confirmed when they are asked about their frequency of use, since 73.6% of those who claim to use them regularly, do it every day or almost every day (see table 5 Annexes). The main used social networks are, in order of use: Facebook (62.5%), Instagram (45.8%), and Twitter (30.3%). But this percentage of use is significantly reduced when we focus the use of social

media in the political sphere (diagram 1): 31.8% of citizens who use social media regularly, claim to do so to receive political information, with an average frequency of use of 5.8 out of 10; and 14.2% claim to do so to participate in politics, with an average frequency of use of 5.12 out of 10. We would like to note that these percentages are slightly lower than those we have been able to observe in previous studies carried out after holding the general elections of April and November 2019⁴. We understand that these differences are directly related to the impact that electoral campaigns would have on increasing these uses. In the case of the study that we are handling on this occasion, as it is not a post-election study, it presents lower percentages of use, a consequence, probably, of being a period of electoral inactivity.

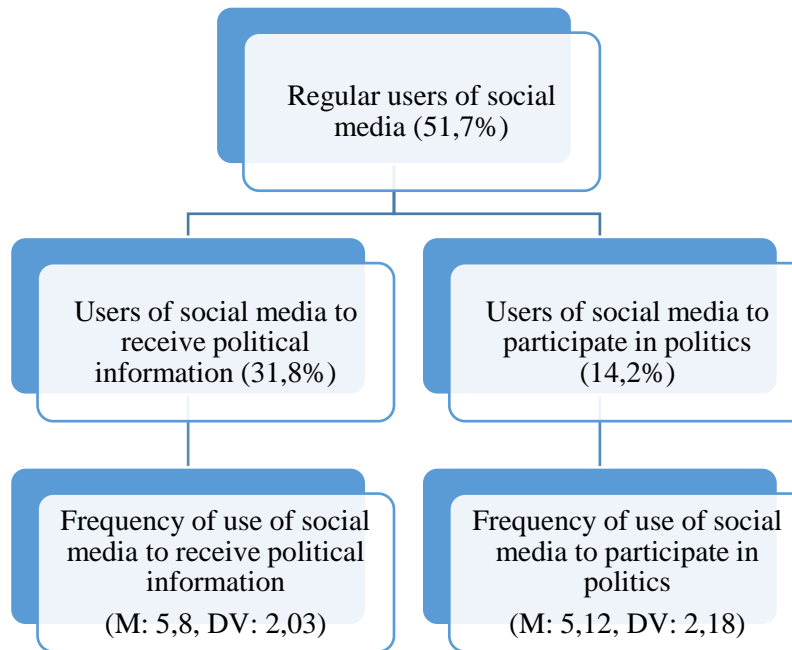
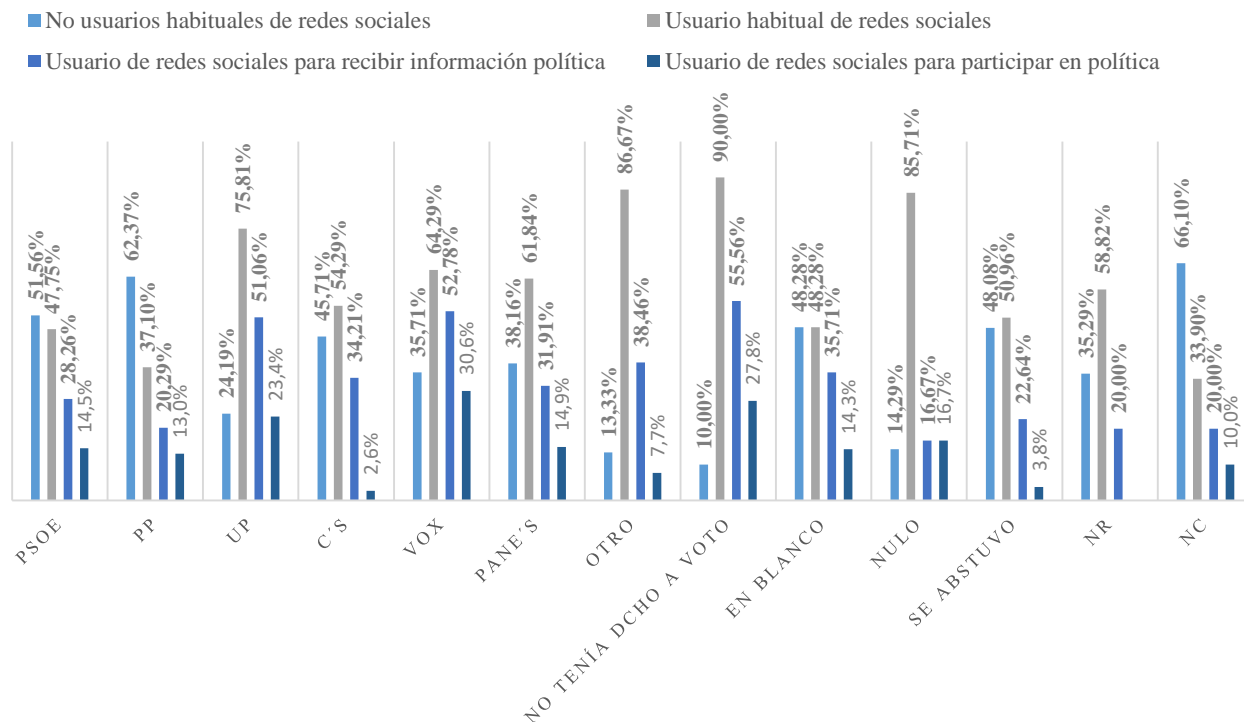


Diagram 1. *Uses of social media in Spain, 2021*

Source: self-made based on the *EPEE* database, *Feb. 2021* of the EIP-USC

⁴ The values of regular use of social media were 51.2% in A2019 and 52% in N2019. In the case of use to receive political information, the values were: 50% in A2019 (average frequency of use 6.37) and 46.7% in N2019 (average frequency of use 6.8). The values of the use of social media to participate in politics were: 21.9% in A2019 (average frequency of use 6.13) and 21.4% in N2019 (average frequency of use 6.22).



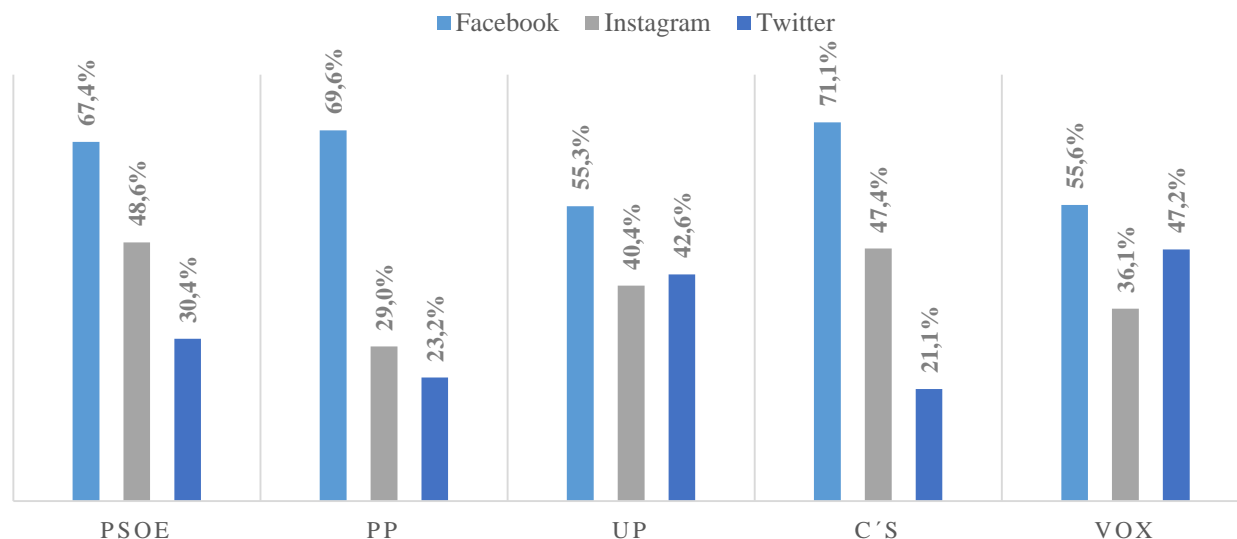
Graph 1. Uses of social media according to vote recall in the general elections of November 2019 in Spain

Source: self-made based on the EPEE database, Feb. 2021 of the EIP-USC.

But what happens when we observe the relationship that the use of social networks has with the political position of the voters? Well, as can be seen in the following graph, there are distinct patterns. Thus, the contingency analysis carried out on the consumption of social media based on the vote recall in the last general elections held in Spain in November 2019 (graph 1), shows the existence of a differentiated pattern of consumption based on the vote, both for the general consumption of social media and for their use for political purposes (to receive political information or to participate in politics) and consequently, with the ideological positions of the parties and their voters⁵.

Some trends, those defined regarding the different uses of social media according to vote recall, which we again find when we talk about the specific networks that citizens use most frequently. Thus, and as can be seen in graph 2, while the consumption of social media by the voters of the centripetal parties (PSOE, PP, and C's) is more homogeneous, forming a block that makes notable use of Facebook as the main social network, followed by Instagram but with almost 20 percentage points of difference; centrifugal parties, those located at the ideological extremes (VOX and UP), show similar consumption patterns, marked by a more balanced use of the main social networks, and especially Twitter, a much more politicized and polarized network. Consequently, we could affirm that the differences are not marked so much by the ideology of the political parties as by the specific positioning of each of them on that scale. These data are in line with what was observed for Spain in previous studies in the case of VOX (Oñate and López-López, 2020).

⁵ The analysis carried out of media consumption based on the ideological self-placement of the interviewees on the left-right scale, yielded similar results, reaffirming what was collected in these graphs and this statement. Due to space issues, it has been impossible to reproduce the analysis on these pages.



Graph 2. Main social networks used according to vote recall in the general elections of November 2019 in Spain

Source: self-made based on the *EPEE* database, Feb. 2021 of the EIP-USC.

Another issue that we pointed out in the second section of this work, which would also be an object of analysis, is the level of credibility that users grant to social networks in comparison to other offline media. The reason for this reflection lies in one of the questions to which previous findings led us: is the use of social networks the result of granting them a higher level of credibility as a means of communication or, on the contrary, is their use motivated rather by an instrumental character, as a means of communication in which, as we already anticipated, opinions are reinforced and even polarized?

To try to answer these questions, we carried out an analysis of the level of credibility that citizens grant to social media according to the use they make of them and the political position they manifest around the main formations. As can be seen from Table 3, regardless of the type of use that the citizen makes of social networks, these are the media that generates the lowest levels of credibility, being the radio, followed by the written press, the ones that obtain the highest average levels. Despite this, we can indeed find some differences, being those who claim to use social media to get informed about politics the ones who give them a higher level of credibility, followed by those who claim to use them to participate in politics and those who define themselves as regular users in general. Those who grant the lowest levels of credibility to social media, with a remarkably low average value (2.32 out of 10), are citizens who do not declare themselves users of social media, as might be expected; which would lead them to use other media as spaces from which to obtain reliable and credible information.

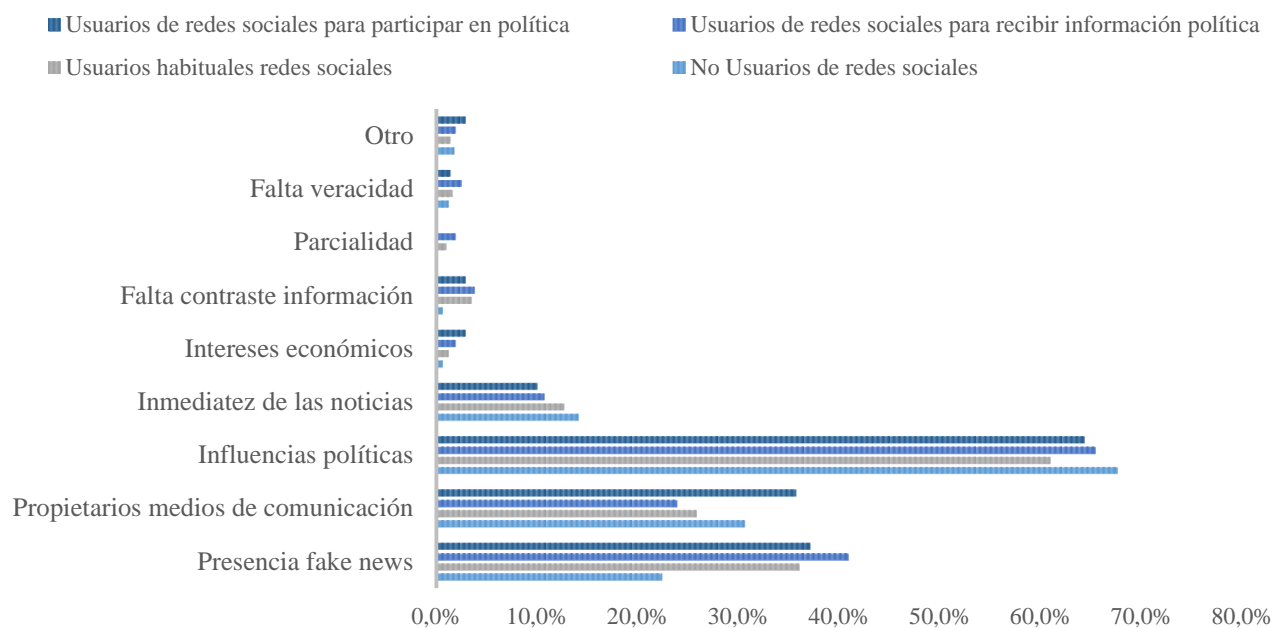
Table 3. Level of credibility granted to offline and online media according to uses of social media in Spain

	Not users of social media	Regular users of social media	Users of social media to receive political information	Users of social media to participate in politics
Digital media	5.37	5.52	5.81	5.63
Newspapers	5.75	5.67	5.84	5.7
Radio	5.99	5.95	6.09	5.94
TV	5.25	5.2	5.23	4.87
Social media	2.32	3.78	4.69	4.46

Source: self-made based on the *EPEE* database, *Feb. 2021* of the EIP-USC

These credibility values are motivated, in the different media, by different issues. In the present case, social networks, and taking into account the different uses that citizens make of them, it can be verified (graph 3) that the main reason given by citizens to grant a greater or lesser level of credibility to the information obtained through them is, regardless of use, the existence of political influences, with values that fluctuate between 60% of those who declare themselves regular users and 65.4% of those who use social media to receive political information. Followed, but with notably lower values, by the presence of fake news and the influence of the owners of the media. In the first of these last two cases, with values ranging between 36% of those who are regular users of social networks in general and 40.9% of those who use them to receive political information; and in the case of the second, with values ranging from 23.9% of those who use them to receive political information and 35.7% of those who use them to participate in politics.

To finalize this analysis regarding credibility and taking into account the values commented on in Table 3, one might wonder if these levels of credibility, specifically those expressed towards social networks, present differences according to the voting position of the voters. In this sense, and as can be seen from Table 4, the pattern described at a general level is repeated by party according to the different types of users. This fact leads us to observe how those who use social media to receive political information are the group that grants the highest levels of credibility to this medium; although with some differences between parties. Thus, and within the five main analyzed parties, the voters of the *Partido Socialista Obrero Español* (PSOE) and regardless of the type of use, are who grant this medium higher average levels of credibility, 4.62 and 4.60, respectively; followed by the voters of *Ciudadanos* (C's) in two of these uses, 4.03 and 4.33; and of *Unidas Podemos* (UP), with 3.84, 4.59 and 4.36, respectively. These data do not correspond, as we have already mentioned, with the fact that they are the voters who to a greater extent make use of social networks in both directions, at least in the case of the PSOE.



Graph 3. *Reasons for the level of credibility granted to social media according to uses of social media in Spain*

Source: self-made based on the *EPEE* database, *Feb. 2021* of the EIP-USC.

Table 4. *Contingency table of the level of credibility granted to social media by the different types of users, according to vote recall in the general elections of November 2019 in Spain*

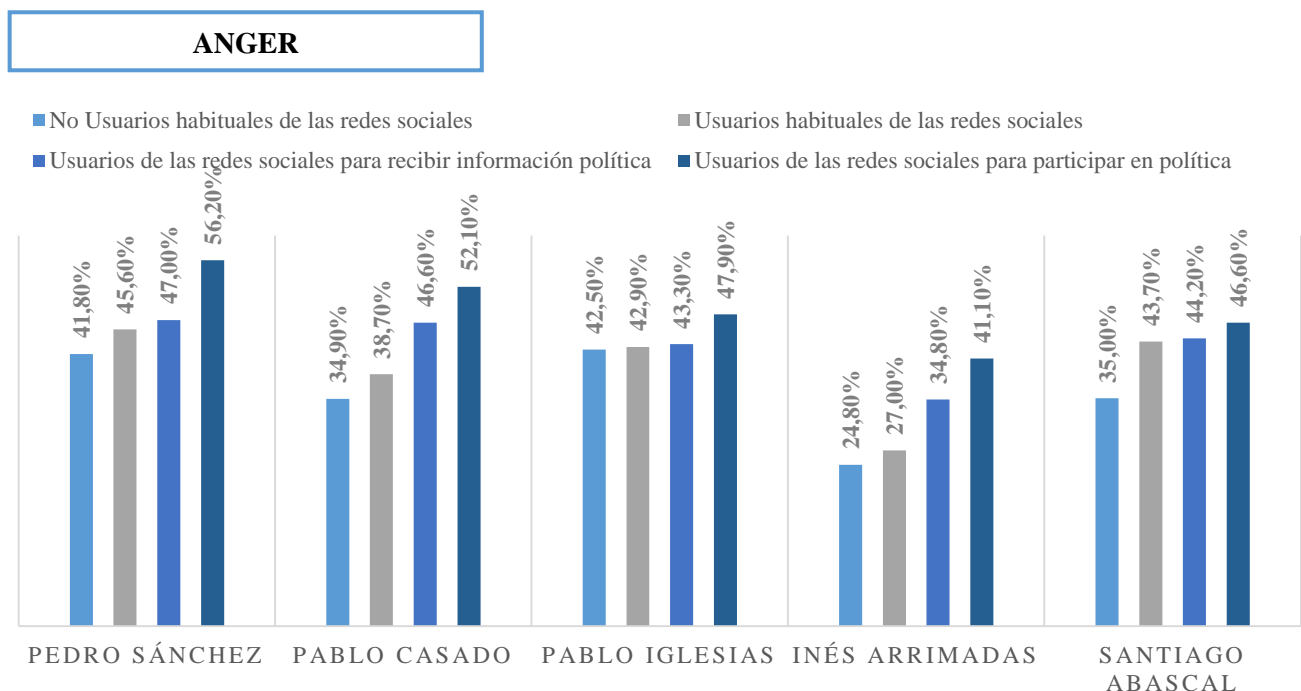
	Not regular users of social media	Regular users of social media	Users of social media to receive political information	Users of social media to participate in politics
PSOE	3.65	4.02	4.62	4.60
PP	2.05	3.41	4.29	4.33
UP	1.88	3.84	4.59	4.36
C's	1.73	4.03	4.33	-
VOX	1.29	3.63	4.00	3.90
PANE's	1.60	3.80	5.33	5.17
Other	-	3.77	5.00	7.00
Did not have voting rights	-	5.00	5.10	4.60
Blank	2.50	3.00	3.80	1.50
Null	3.00	3.17	5.00	5.00
Abstained	1.72	3.59	5.18	5.00
Does not remember	1.33	3.20	5.00	-
Na	1.63	3.60	7.25	5.00
Total	2.32	3.78	4.69	4.46

Source: self-made based on the *EPEE* database, *Feb. 2021* of the EIP-USC.

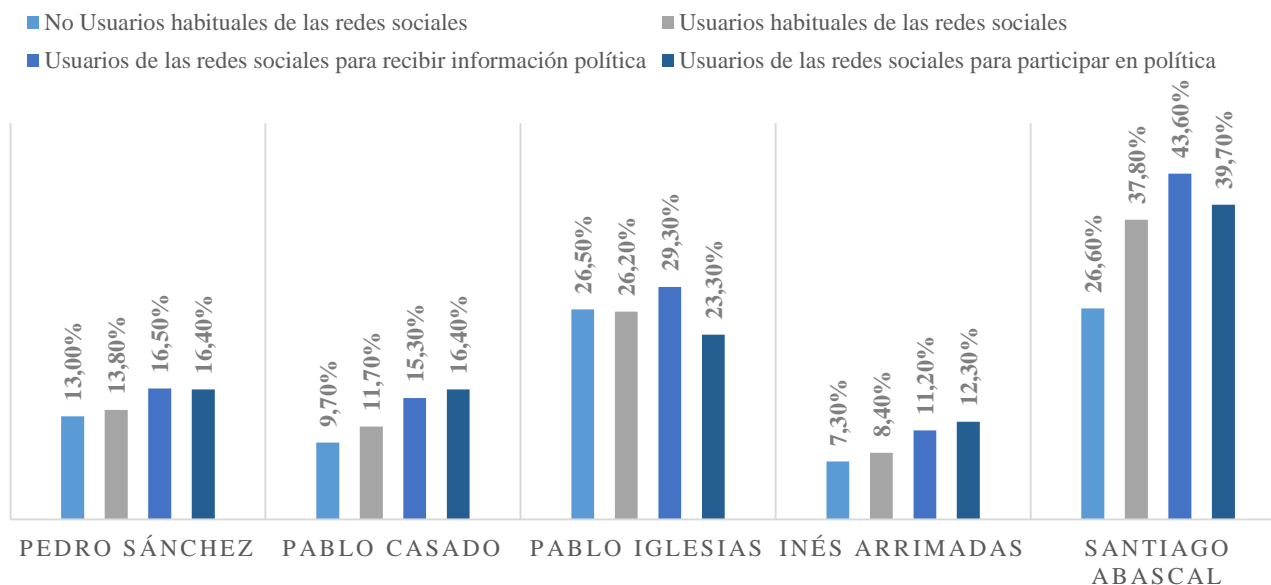
To close this first approach, we would like to delve into the analysis of the emotions that citizens feel towards the main political leaders, based on the use they make of social media. Of the total of the thirteen emotions included in our demographic study, we will present below those that show the highest percentages of emotional presence. Specifically, we will analyze two negative emotions referring to the emotional component of anxiety, anger, and fear, which, as advanced in section 1, have been widely discussed in the literature, and two positive emotions, referring to the emotional component enthusiasm, hope, and tranquility.

Graph 4 shows the presence of anger and fear that citizens express towards the five main leaders based on their use of social networks. As can be seen, in the case of anger and regardless of the leader to whom we refer, the greater the level of proactivity in social media, especially for political purposes (getting informed about politics or participating in politics), the higher the percentages of expressed emotional presence. Especially significant are the differences in the cases of P. Sánchez, P. Casado, and S. Abascal. These data would confirm the statement, present in the literature, regarding the level of polarization implicit in participation in social media, and how, to a certain extent, these become “echo chambers” that amplify previous positions and emotions, with greater clarity in the case of negative emotions such as anger, an emotion present among those who have a greater tendency to assume risky situations, and, therefore, become involved in participating in debates.

The same does not happen, as can be seen, in the case of fear, where we can observe how, regardless of the leader we refer to, those who use social media to receive political information are those who present higher percentages of emotional presence; being especially marked the percentage differences in the cases of P. Iglesias and S. Abascal compared to the other leaders. Undoubtedly, these data agree again with the positions defended in the addressed literature, regarding the search for a greater quantity and diversity of information by those who feel fear, as a result of the activation of the mechanism of aversion to risk and need to reduce, as far as possible, their levels of uncertainty.



FEAR



Graph 4. Emotional presence of anger and fear towards the main Spanish political leaders according to use of social media

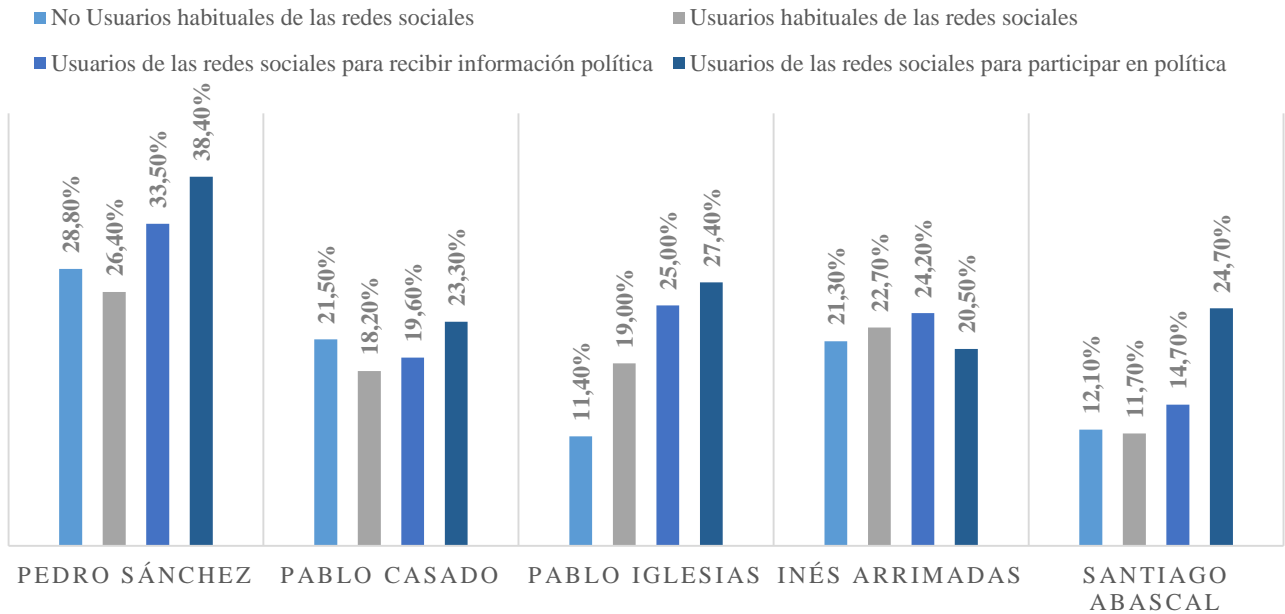
Source: self-made based on the *EPEE* database, Feb. 2021 of the EIP-USC.

In contrast, and although positive emotions have not been treated in such detail by the literature linked to social media, as is the case of negative emotions, we would like to show the case of two emotions that present significant levels of emotional presence, especially in some leaders. These are the cases of hope and tranquility (graph 5). In the case of the emotional expression of hope, we again find the observed pattern in terms of anger. Thus, and as the level of proactivity in the networks increases, the presence of this emotion increases in all leaders, with the sole exception of the case of I. Arrimadas, although with small differences. Another interesting issue to point out in this analysis is the fact that with significant differences (up to more than sixteen points in the case of some groups) compared to the rest of the leaders, P. Sánchez is the leader who shows the highest levels of emotional presence in all analyzed user groups. As advanced in section 1, this emotion has been outlined as a supportive emotion, which would make it easier for political actions to last over time. This statement could be applied to the case of P. Sánchez, since in two of the previous studies carried out by the EIP-USC, after the general elections of April and November 2019, we find this same fact; the high levels of presence of hope towards this leader among those who get informed about politics through social networks and among those who use them to participate in politics.

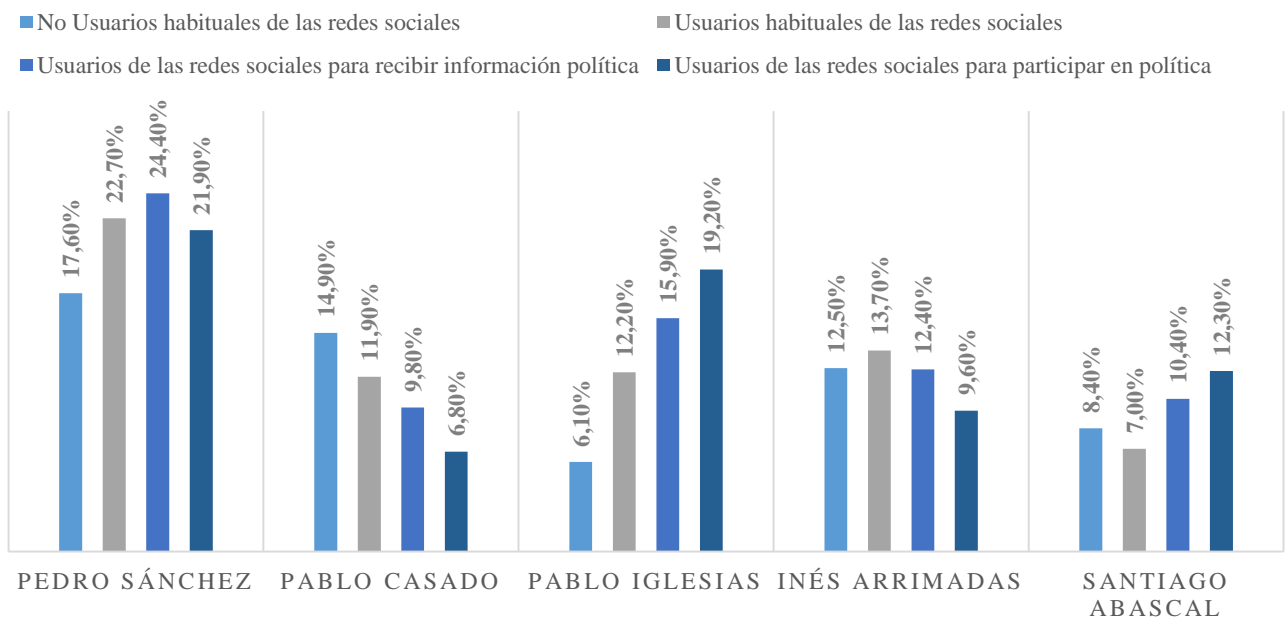
Finally, the data on the presence of the tranquility emotion towards the five leaders are presented. As we mentioned in section 1, there is an open debate regarding this emotion, understood by some not as such, but as an attitude. Despite this, after having included it in our studies since 2015, we have verified its correct functioning, so furthermore, and given the percentages it presented in this case, we have considered it appropriate to include it in the analysis. As mentioned, tranquility has been linked to the existence of pleasant states, so we also understand that it may be related to the presence of hope. Contrary to what was observed concerning the previous emotions, we find less clear patterns based on types of users. As for the leaders, P. Sánchez is, as was the case with hope, the leader towards whom citizens show the highest levels of emotional presence, regardless of the use they make of social media, followed by P. Iglesias, although with a significant percentage difference.

Regarding the uses, we find inverse patterns, clearly in the cases of P. Casado and S. Abascal compared to the rest of the leaders. In the case of the first, tranquility increases the lower the presence in social media, while in the case of the second it increases, as the political involvement in social media increases. The latter pattern is also observed in the case of P. Iglesias. In the case of P. Sánchez, regular users and those who use social media to receive political information are those who show higher levels of presence of this emotion; something similar to what happens in the case of I. Arrimadas.

HOPE



TRANQUILITY



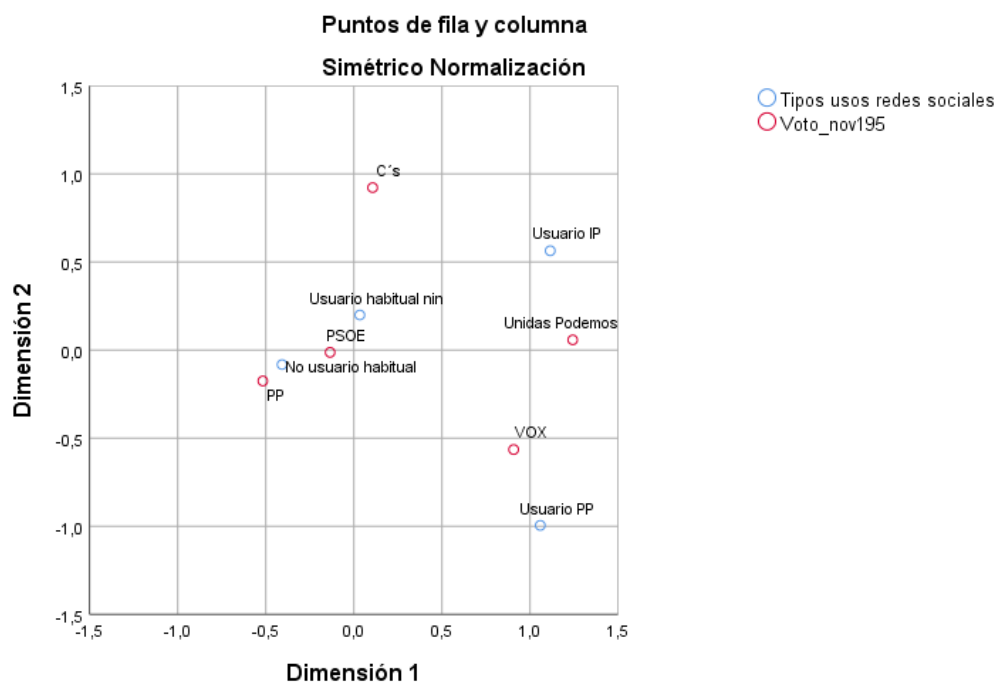
Graph 5. Emotional presence of hope and tranquility towards the main Spanish political leaders according to use of social media

Source: self-made based on the *EPEE* database, *Feb. 2021* of the EIP-USC.

4.2. Optimal scaling analysis of the use of social media

We have considered it pertinent to close this work with an analysis of interdependence between the main variables object of this research: the different uses that citizens make of social networks, their political positioning, and the emotional presence they express towards the main leaders, primary agents of political competition. For this we have proceeded, in the first case, drawing a simple correspondence analysis of the relationship between voting for the different formations and the types of uses citizens make of social media; and in the second case, through the approach of four optimal scaling analyzes, one for each of the emotions analyzed regarding the different uses of social media⁶.

We begin with the presentation, in graph 6, of the simple correspondence analysis of the relationship between the different uses of social media and voting in the general elections of November 2019. A relationship is observed between both variables, as the descriptive analysis advanced. Thus, those who get informed about politics through social media are related to the fact of being UP voters, while those who use them to participate are related to voting for VOX. For their part, the traditional parties, PSOE and PP, are closer to profiles with the less political use of social media. Moreover, as we can see, who is a user of social networks, but not for political purposes is related to the profile of those who are not users. Undoubtedly, this has an important value regarding what has been defended over time concerning the use of social media, the presence in them is not important, but rather the presence for political purposes or motivations.

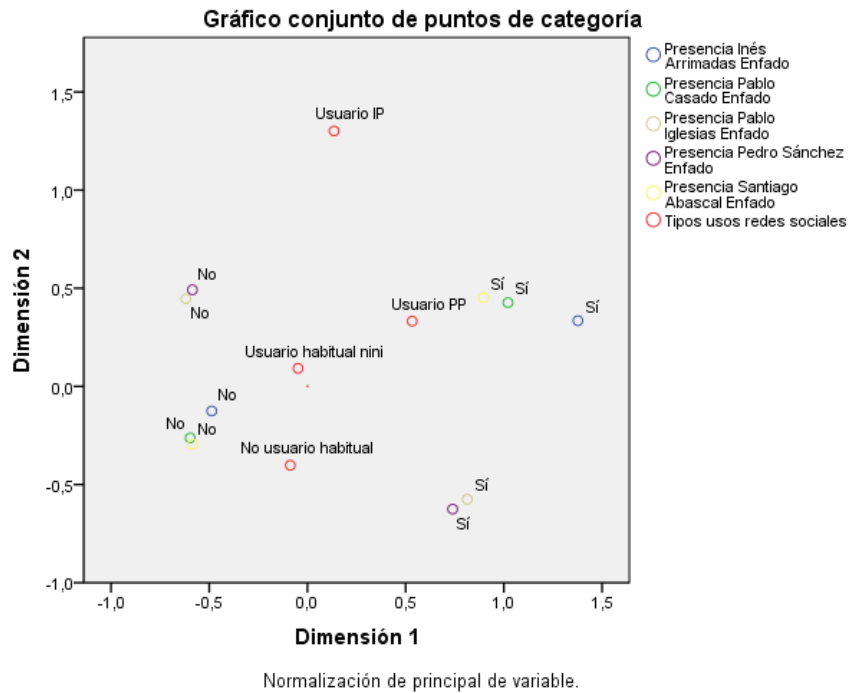


Graph 6. Simple correspondence analysis of social media uses and voting in the November 2019 general election

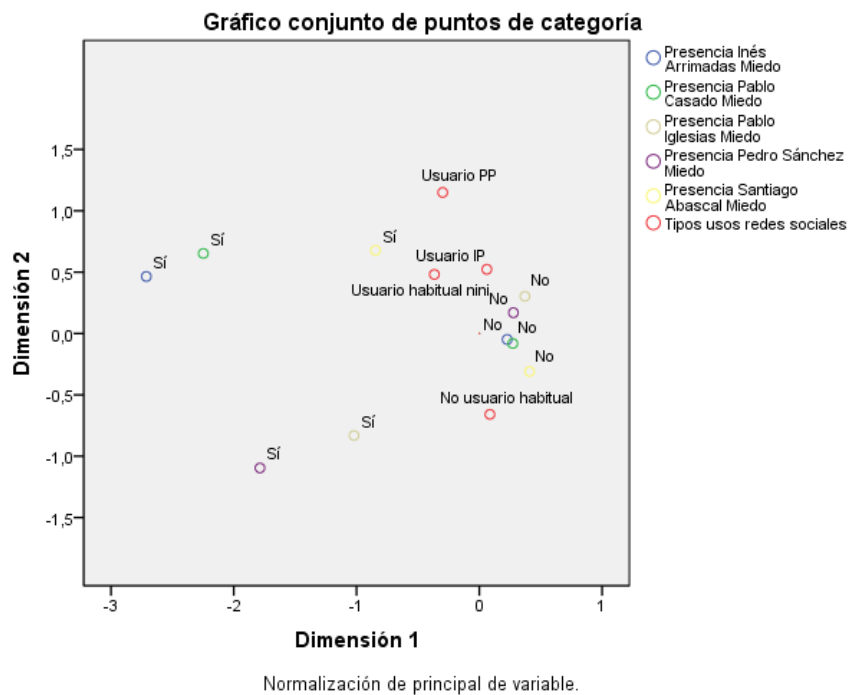
Source: self-made based on the *EPEE* database, *Feb. 2021* of the EIP-USC.

⁶ To carry out these two analyzes, we have proceeded to create a variable in which, from the original variables, the different types of uses that citizens make of social media have been unified: non-users, regular users, users to get informed about politics, and users of social networks to participate in politics

ANGER



FEAR



Graph 7. Multiple correspondence analysis of the emotional presence of anger and fear and the uses of social media

Source: self-made based on the EPEE database, Feb. 2021 of the EIP-USC.

Graph 7 shows the graphical results of the optimal scaling or multiple correspondence analysis carried out for the emotional presence of anger and fear towards the five political leaders and the uses of social media by citizens.

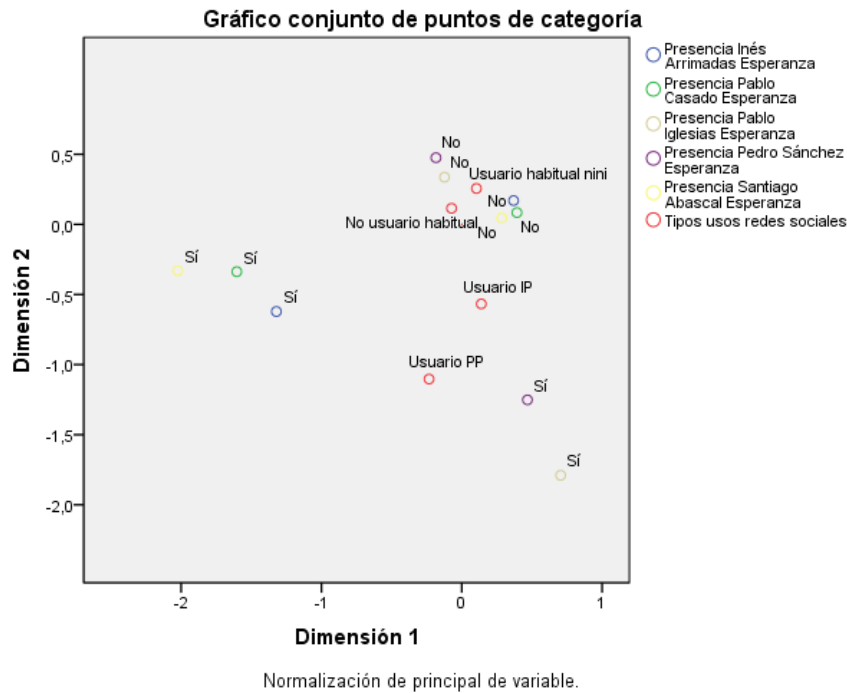
In the case of the emotional presence of anger towards leaders compared to the use of social media by citizens, it can be verified that there is an association, as was already advanced in the descriptive analysis presented in the previous section, between the fact of being a user of social media to participate in politics and expressing anger, especially towards the leaders of the right and extreme right parties: I. Arrimadas, P. Casado, and S. Abascal. In contrast, those who do not use social media for political purposes, maintain a relationship with the fact that they do not feel anger towards the group of five leaders. Again, these association data strengthen the findings that the literature on emotions and communication has already revealed and that we have extensively discussed.

Regarding the emotional presence of fear towards leaders compared to the use made of social media, as can be seen in the second graph of a set of points, the fact of not feeling fear towards leaders is more related to the fact of not using social media for information. Those who use them look for information that tends to reduce their uncertainty and, consequently, fear of events, actions, or actors.

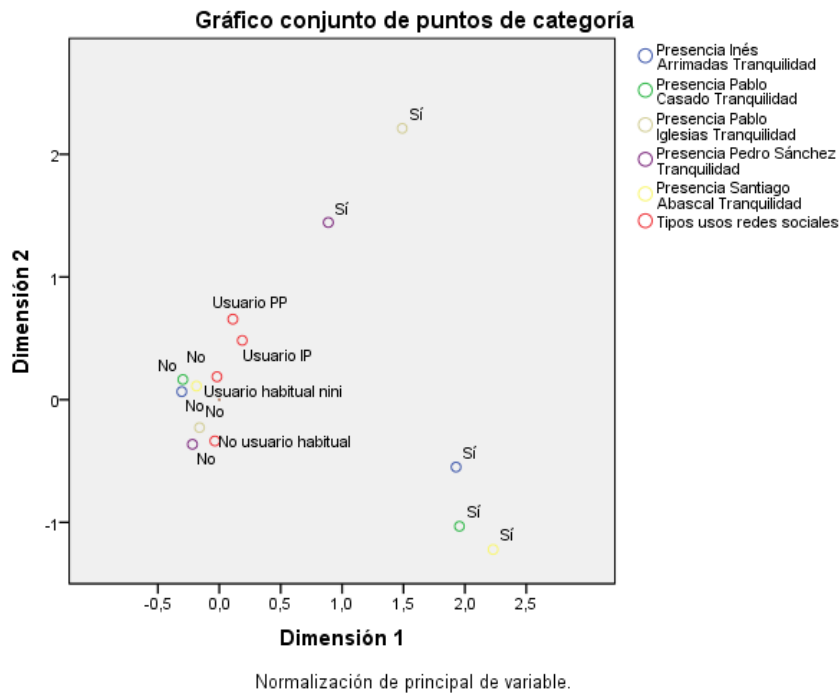
Graph 8 shows the relationship levels of the multiple correspondence analysis carried out for the presence of hope and tranquility based on the uses made of social media. Given the mapping in terms of hope, we observe how the presence of this emotion towards P. Sánchez has an important relationship with the fact of using social networks to obtain political information, but to a greater extent with the fact of using social media to participate in politics, an issue that the descriptive one was already advancing. This pattern would also occur, but to a lesser extent, concerning the presence of hope towards the rest of the leaders. In contrast, the fact of not presenting this emotion is related to the fact of not being a user of social media or to the fact of being a user, but not with political motivations. This undoubtedly confirms what has already been mentioned regarding the analysis of simple correspondences, and the similar profile existing between these two types of social media users.

Finally, and regarding the analysis of multiple correspondences of the presence of tranquility compared to the uses of social media, the pattern is not very clear, an issue that the previous descriptive analysis also advanced. Thus, and although there seems to be a certain relationship between making political use of social networks with the emotional presence towards P. Sánchez, and to a lesser extent towards P. Iglesias, this is not the case with other leaders. Regarding the non-presence of this emotion, we do observe quite clearly its relationship with the fact of not being a user of social media or being a regular user of this means of communication, but without political purposes or implications.

HOPE



TRANQUILITY



Graph 8. Multiple correspondence analysis of the emotional presence of hope and tranquility and the uses of social media

Source: self-made based on the EPEE database, Feb. 2021 of the EIP-USC.

5. Conclusions

The results presented in this research show the relationship that the different uses of social media may have with the political positioning of users, as well as with the emotions they may feel towards political leaders. Undoubtedly, these first findings are of great value, since they confirm the initially raised hypotheses while maintaining some lines of previous research, especially regarding the presence of emotions.

Because of the analysis, we can affirm that the use of social media for political purposes, either to receive political information or to politically participate, is mediated by the political positioning of the citizens (H1), an issue that both the descriptive and the performed correspondence analysis corroborate. A statement that ratifies the level of politicization existing in social media, an issue that has already been put into value with the analysis of other offline media. This fact is not only reflected in the type of use that is made of them, but also in the specific social networks that are used based on the political positioning of the actors (H2), with a differential pattern marked not so much by political positioning itself, but because of its intensity, so that UP and VOX voters would show similar use of social media, more balanced but with special attention to Twitter, one of the most politicized and polarized social networks, compared to the centripetal parties, which would show a common pattern more focused on the social networks that have been defined as less polarized, Facebook or Instagram.

Finally, the analysis carried out confirms our third hypothesis. The greater the proactivity in the political use of social media, the greater the emotional expression that citizens express towards political leaders, with special attention to negative emotions such as anger and fear. These findings are added to those already existing regarding the importance of social networks as “echo chambers” that amplify the debates that take place in them, in a kind of “emotional spiral”. An emotionality that, in the case of those who feel anger, would lead them to use them as reinforcers of their previous positions, and among those who feel fear, to turn them into spaces in which to find diverse information that allows them to reduce their levels of uncertainty. We consider it appropriate to continue delving into this type of analysis in the future, with special emphasis on the possibility of determining which are the elements that would lead to the emergence of said emotional expressions and whether or not they vary depending on the political moment (electoral period or not).

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Annexes

Table 5. *Frequency of use of social media according to vote recall in the general elections of November 2019*

		Vote recall in the general elections of November 2019													Total
		PSOE	PP	UP	C's	VOX	PANE's	Other	Did not have voting rights	Blank	Null	Abstained	Does not remember	Na	
Frequency of use of social media	Every day or almost every day	69.6%	73.9%	78.7%	68.4%	80.6%	74.5%	84.6%	77.8%	42.9%	91.7%	71.7%	100.0%	75.0%	73.6%
	4 or 5 days a week	6.5%	4.3%	4.3%	2.6%	2.8%		15.4%		28.6%		1.9%		10.0%	4.9%
	2 or 3 days a week	4.3%	2.9%		7.9%	2.8%	4.3%			7.1%		1.9%		5.0%	3.3%
	Only weekends	0.7%													0.2%
	From time to time	18.1%	18.8%	17.0%	15.8%	13.9%	17.0%		16.7%	14.3%	8.3%	11.3%		10.0%	15.3%
	Never or almost never	0.7%			5.3%		2.1%		5.6%	7.1%		13.2%			2.5%
	Na						2.1%								0.2%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Self-made based on the EPEE database, Feb. 2021 of the EIP-USC.