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Spanish mayors' public communication on Twitter during local elections

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Abstract
Introduction. This article examines the use of Twitter as a channel of institutional communication by the mayors of the provincial capitals and autonomous cities of Spain before, during and after the municipal elections of May 2015. **Methods.** The study is based on the content analysis of the activity of the Twitter accounts of the mayors affiliated to the Popular Party (PP) and the Spanish Socialist Workers' Party (PSOE), in order to characterise the main trends in the activity of the mayors and their followers. **Result and conclusions.** Mayors make a partisan and electioneering use of their institutional accounts in the microblogging platform; mayors' messages about the local environment generate interest among users and this is reflected in the high volume of retweets, favourites and comments that their tweets receive; mayors' Twitter accounts stand out for their respectful attitude during the elections.

Keywords
Twitter; citizen participation; municipal government; political communication; interactivity.

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followers. 5.4. Chronology of the activity of the Twitter accounts. 6. Discussion and conclusions. 7. References.

Translation **by CA Martínez-Arcos**
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1. Introduction

Twitter has become an important platform for political communication and is being progressively integrated into election campaigns worldwide (Ammann, 2010). Beyond the debate on its role as a complement method to polls for predicting election results and measuring public opinion, the potential of social networks to reach and mobilise people more than conventional media is undoubtable. However, many politicians still distrust the new social media while others make a one-way use of Twitter, and waste their potential to establish a real debate with citizens and appeal informed voters.

On the other hand, election propaganda is forbidden on the day before the election in Spain, the pre-election silence, so that voters can evaluate candidates, without distractions, and make an informed vote. The growing use of social media in election campaigns has questioned the appropriateness of the pre-election silence insofar as the messages posted by political parties and candidates in their Twitter accounts remain there during the pre-election silence, and has raised the possibility of allowing candidates to make propaganda during the election eve and voting day.

This work aims to address these questions based on the study of the Twitter accounts of the Spanish mayors of the province capitals and autonomous cities who are affiliated to the Popular Party (PP according to its initials in Spanish) and the Spanish Socialist Workers' Party (PSOE according to its initials in Spanish), regardless of whether they introduce themselves as candidates in the municipal elections of May 2015. The focus on the activity of mayors responds to the fact that the local government is the type of government that is closest to the citizen.

2. Twitter as a tool for political communication

Numerous studies consider Twitter as a social network with greater power of attraction for the establishment of political communication (De la Torre and Dillón, 2012; Noguera, 2013; García and Zugasti, 2014). One of the key factors in this regard is the widespread use of social networks, especially Twitter and Facebook: according to Eurostat (2015), almost half of the people (46%) between 16 and 74 years of age use the Internet to get access to social networks, primarily Facebook and Twitter. The percentage is significantly higher in Spain, where over 50% of the population make this type of use. Moreover, from 2009 to 2014 in Spain there was a 20% increase in Internet browsing time in households.

However, opinions on the efficacy of political participation in Twitter differ. On the positive side, López Meri (2015) considers that it is a proper way to measure public opinion, while Fernández (2012) considers that the microblogging network has an unquestionable usefulness for candidates to demonstrate greater strength against election opponents, which is susceptible to be quantified through such indicators as the tweets that become *trending topic*, the number of followers and

positive comments received from users. In the same vein, Tumasjan *et al*. (2010) propose that Twitter can be used as a complementary tools for election forecasting methods (surveys and polls) and is a potentially valid indicator of the public opinion on politics.

In contrast, in the opinion of Metaxas *et al*. (2011), a greater number of followers does not guarantee success in elections. Sunstein (2008) also argues that Twitter cannot be considered as an information market nor a place for deliberation. For their part, Jungherr *et al*. (2011), in their study of the German elections of 2009, conclude that the larger or smaller number of mentions of a political party on Twitter does not predict its success or failure in the election day; and, thus, that a leading role in this social network is not a valid indicator measure the political sentiment and inclinations that citizens express in the offline environment.

The reasons for these differences in opinions can be found in the high appraisal that politicians give to social networks to engage in communication with citizens (Intelligence Compass, 2010). However, politicians make a discreet use of Twitter and social networks, and their accounts show little willingness to enhance dialogue with users. Research on both aspects has been very exhaustive in the last decade.

2.1. Use of Twitter by politicians

In Spain, only two thirds of the mayors of provincial capitals have a Twitter account, and only half of them update it (Catalina, López de Ayala y Fernández, 2015). Pardo Baldeón (2014), found out that the institutional use of Twitter in the local and provincial governments of Castellón had increased in the three-year period of study but also that the increase was not large enough as to establish a network of communication with citizens, and instead that Twitter had become only a tool to disseminate their own corporate messages. In a superior institutional context, Túñez and Sixto (2011) found out that barely a quarter of the Spanish members of parliament had a Facebook account; that only 16% of them had an account open to the general public. However, the same study concluded that establishing direct contact with the rest of users through Twitter was not the priority of the members of parliament, whose main objective was merely to post messages in the form of Tweets.

The low willingness of politicians to talk with citizens continues even during election campaigns, during which candidates supposedly dedicate time to talk and interact with citizens. Congosto and Aragón (2012) point out that only minority parties, or those which obtained a small percentage of votes in past elections, carry out their campaign on social networks, particularly on Twitter, because they have less access to conventional media (television, radio and press) in comparison to the main parties.

In this regard, the study of Zugasti and Pérez (2015) on the elections to the European Parliament detected this trend on the Twitter accounts of the political parties PODEMOS and PP. In fact, the latter party only replied to one comment made by a follower; while the figures of the party of Pablo Iglesias were considerably higher, but still very low (6.8%), because it recognises the capacity of this microblogging network to establish direct conversations between politicians and their followers.

Another similar case occurred in the Andalusian parliament elections, which were analysed under the prism of Twitter by Delltell *et al*. (2012), who concluded that the low participation of users and their discouragement as potential voters are a consequence of the fact that the major parties, PSOE and PP, were not able to connect and empathise with society through comments on the Tweets which could become the subject of debates. In relation to these same parties, López Pumar (2014) detected

differences in the activity of the Twitter accounts: between March and May, 2012, the PP mayors posted a greater number of tweets than the PSOE mayors; but the use of Twitter by mayors from both parties is common and has a partisan and institutional purpose, and does not pay attention to the receivers of their messages.

Criado *et al*. (2013) characterised the profile of the politicians who, during the municipal and regional elections of 2011, knew how to exploit the resources offered by Twitter: candidates from the most populated cities, militants of the Popular Party, young and experienced in communication 2.0. However, in general terms, they concluded that in the social network there is a low level of dialogue with followers and that this is motivated, among other things, by their reliance on one-way campaigns, largely based on their party and the traditional media.

In order to achieve this change of attitude and to enhance the establishment of fluid communication with users, Albero-Gabriel (2013) recommends politicians, among other things, to listen and respond, to show accessibility without avoiding controversial topics, to avoid posting an excessive number of Tweets because users are not interested in knowing everything they do at every moment, and to take the initiative in conversations in order to foster debate.

2.2. Citizens' attitudes and perceptions

Twitter provides a way to reinforce the ideological affinity of users and their empathy towards the politician who opens an account and keeps it updated. The analysis of retweets made by Conover *et al*. (2011) shows the unintentional creation of new communities of users with a common ideology. On the contrary, the study of Catalina-García *et al*. (2015) detected a high number of critical and opposing responses to the comments made by politicians in Twitter.

The analysis of 100,000 Tweets carried out by Tumasjan *et al*. (2010) during the German federal elections indicates, among other findings, that Twitter is used as a platform not only for the dissemination of political messages, but also for debate and discussion among users. However, like the study by González-Bustamante (2015), the study of Tumasjan *et al*. indicates that the debate on Twitter is dominated by a minority: 40% of the messages are posted by 4% of the total number of users.

From the point of view of the perception of this social network, Fernández (2012) found out that the motivations that encourage users to follow politicians on Twitter are, in this order, to obtain first-hand information, without the filter of the press and, to talk directly to the political leader.

Finally, with regards to the perceptions of citizens about the use of Twitter by politicians, the *Intelligence Compass* (2010) report indicates that: 86% of users believe that politicians should use social networks to establish relationships with users; that 12% of users believe that they have to serve a particular purpose, while 1% believes that the use should have an electoral purpose, and the remaining 1% believes that Twitter should be used for other undefined reasons. However, almost all of the people who follow politicians in social network (93%) mentioned that this online connection is motivated by a personal friendship with them, not by an ideological interest. In fact, most of the followers do not want to have politicians in their virtual environment to avoid being associated with a certain political party.

3. Research objectives and hypotheses

The main objective of this work is to examine the institutional presence in and use of Twitter by the highest municipal representatives affiliated to the PP and PSOE, including the Catalonian branch of the latter, the (Socialist Party of Catalonia (PSC). The objective is to analyse the evolution of the institutional use of Twitter by the mayors from the aforementioned parties, who during the last administrations have performed a pincer movement in Spanish politics, right before, during and right after the municipal elections, in terms of topics, and the way followers respond to the topics proposed by politicians.

The study aims to stimulate and guide reflection in the scientific community and in society about the use political leaders make of Twitter as a tool that enables closer dialogue between citizens and their municipal representatives in the electoral period and about the responses generated among users.

Along with the descriptive analysis of the activity of the Twitter accounts, three hypotheses have guided the work of this research:

Hypothesis 1: Mayors use institutional accounts for partisan and electioneering purposes.

Hypothesis 2: During election periods, mayors are not able of generating a real dialogue about the closest local topics with the citizens.

Hypothesis 3: Institutional Twitter account holders, the mayors of provincial capital cities and autonomous cities, do not respect the pre-election silence established by Spanish law.

4. Methods

Our universe of study is formed by 34 municipal mayors of provincial capitals and autonomous cities who are affiliated to the PP and PSOE and were in power before the municipal elections of May 24, 2015. The study also includes the mayors affiliated to the PSC, a political party associated with the PSOE, but for the purposes of clarity, in the analysis the PSC mayors are counted as PSOE mayors. This sampling method did not differentiate between those mayors who were running for re-election and those who were not, because the study focuses on determining whether the Twitter activity of mayors respond to partisan or institutional purposes.

The first review of Twitter resulted in the identification of 28 active accounts associated with municipal mayors or administrations, not of people as individuals or as members of a certain party, during May 2015. It is important to note that two accounts corresponding to the same person, the candidate and former mayor of Castellón, were identified and that of these two accounts the institutional one was selected, while the personal one was discarded. Given that our object of study is the account of the mayor as an institutional figure and not as a member of a party, the new accounts that some mayors opened on the occasion of the elections were also dismissed.

Accounts were classified as inactive when they had not shown any activity in at least three months prior to the period of analysis. However, none of the selected account was declared as inactive.

The second stage of the study involved the content analysis of each of the accounts and their activity during May, 2015, which covered the pre-electoral and electoral periods and one week after the elections day. The collected data were coded and manually added to a database and subsequently subjected to statistical analysis with SPSS.

It is worth mentioning that the profile and content of all accounts were in Spanish language, except for those corresponding to the mayors of Lugo and Tarragona, who used the co-official language of their communities.

4.1. Variables

Number of followers: total number of people who follow the account.

Frequency of tweets: tweets are text messages displayed on the homepage of the user and whose length is limited to 140 characters. The total number of messages sent during May and the daily average posted by mayors were registered.

Mayors' retweets: messages that mayors copy from other accounts and send again on Twitter for their followers to see.

Followers' retweets: messages that the followers of the analysed accounts share with their own followers, which contributes to the dissemination of the mayors' messages.

Multimedia possibilities: in order to measure the complexity of the use mayors make of Twitter to interact with their constituents, the analysis takes into account mayors' use of different multimedia content, notably: videos and pictures.

Topics. Tweets have been classified according to the 12 categories:

1. Economy: includes messages related to tourism, employment, economic data, entrepreneurs, companies, industry, commerce and agriculture.

2. Local: includes messages about construction, infrastructure, mobility and those aspects related to the districts and areas of the city.

3. Institutional: messages about acts of governance, mayors' visits to different venues, plenary sessions, visits of citizens or public figures to the city or city council.

4. Elections: Comments that make explicit reference to the campaign, pre-campaign, voting and pre-election silence; and including propaganda, meetings, results, balances, or references to other parties. Moreover, these tweets have been qualified as:

    - Proposals: projects and aspects of the programme presented in the mayor's candidacy.
    - References to other parties and higher institutions, either regional or national, governed by other parties.
    - Polls: polls, surveys and analyses of election forecasts.
    - Invitation to vote: messages about the achievements of the mayors or their party during the legislature prior to the election.
    - Events: public meetings, meetings with residents, discussions and all those meetings scheduled in the mayor's electoral agenda.
    - Other: messages not covered in the above categories.

5. Politics: allusions to political topics that do not make explicit reference to the elections.

6. Social life: messages about health, social services, solidarity, tributes, neighbouring events and problems.

7. Education: references to any of the educational levels, from kindergarten to university, and transversal education.

8. Culture: references to music, exhibitions, town festivals, traditional and modern, awards to different cultural trends and other cultural topics.

9. Sports: Comments about of any sport, either professional or amateur.

10. Technology: messages about new technologies, research and development.

11. Personal life: comments about the personal actions of the account's holder.

12. Other: messages not covered by the previous categories.

Followers' responses to mayors' tweets. These comments are collected under the same hashtag, which is a type of label identifies a topic with the # symbol.

5. Results

5.1. General data on the use of Twitter

First, we should highlight the high percentage of mayors of provincial capitals and autonomous cities, affiliated to the PP and the PSOE and its associate in Catalonia, the PSC, who had active institutional accounts on Twitter during the May 2015. Of these accounts, 20 belonged to PP representatives (80% of the total number of mayors from the PP) and 8 to the PSOE and PSC (88.9%).
The followers of these accounts range from slightly less than one thousand to almost seventy thousand. The average number of followers is 9,608 for PP mayors and 5,571 for PSOE mayors.

Table 1. Number of followers, frequency of tweets, mayors' retweets, followers' retweets, photos and videos with respect to the total number of tweets posted by mayors

Mayors[1]	Number of followers[2]	Frequency of tweets	Mayors' retweets (%)	Followers' retweets (%)	Photos (%)	Videos (%)
1	3,459	363	27.27%	72.73%	58.95%	0.00%
2	2,805	147	78.23%	21.77%	19.05%	0.00%
3	4,063	357	42.02%	85.43%	19.05%	3.36%
4	4,858	582	61.34%	99.83%	18.73%	2.06%
5	4,798	227	33.04%	100.00%	25.11%	2.20%
6	2,198	2	0.00%	100.00%	0.00%	0.00%
7	2,153	103	93.20%	100.00%	1.94%	0.97%
8	6,192	145	15.17%	100.00%	46.21%	16.55%
9	1,911	44	50.00%	97.73%	31.82%	0.00%
10	7,136	513	8.19%	98.05%	38.60%	2.14%
11	11,279	514	32.10%	89.49%	23.74%	4.47%
12	4,359	248	44.35%	96.37%	24.60%	4.03%

13	3,282	128	49.22%	95.31%	17.19%	0.00%
14	30,293	51	1.96%	100.00%	0.00%	3.92%
15	2,356	82	9.76%	100.00%	0.00%	0.00%
16	937	8	0.00%	100.00%	50.00%	0.00%
17	7,467	155	25.81%	100.00%	40.65%	1.29%
18	640	333	39.34%	57.36%	43.54%	0.90%
19	6,825	92	80.43%	96.74%	7.61%	2.17%
20	5,724	125	60.00%	100.00%	18.40%	1.60%
21	2,224	306	54.25%	96.08%	11.44%	1.31%
22	60,934	134	23.13%	100.00%	22.39%	6.72%
23	2,747	203	89.16%	100.00%	3.45%	0.00%
24	4,791	322	26.09%	81.68%	24.53%	3.72%
25	17,107	123	0.81%	100.00%	30.08%	0.00%
26	18,807	149	86.58%	100.00%	4.03%	1.34%
27	14,259	126	45.24%	100.00%	37.30%	3.17%
28	3120	47	82.98%	95.74%	2.13%	0.00%
PP	192,159	4,023	41.49%	89.21%	38.34%	2.50%
PSOE	44,565	1,606	41.10%	91.91%	19.05%	2.42%
All	236,724	5,629	41.45%	89.96%	25.69%	2.49%

[1] Including only accounts that were active in the last three months and May.
[2] Data on followers correspond to those registered by June 2015. The rest of data refers to the activity registered during May.

Source: Authors' own creation.

The number of tweets posted on the accounts throughout the period of analysis ranges from significantly from two to 582. However, the average of tweets is very similar between representatives of both parties: 201 tweets. Something similar occurs with the tendency of mayors to generate their own messages and of their followers to share them: of all the posted tweets, around 41% are messages retweeted by mayors from other accounts and 90% are retweeted and disseminated by users in other accounts.

On the other hand, there are significant differences in the predisposition to include photos in messages, which is much higher among the representatives of the PP than among their counterparts from the PSOE: 38.3% again 19%. The case of the use of video is limited, occurring in only 2.5% of the tweets, although maintaining important variations between the accounts of the different mayors.

5.2. Addressed topics

Bearing in mind that the accounts under analysis correspond to the institutional account of mayors, it is striking that the most frequent topic of their messages is the municipal elections with 63.3%, followed, with less than 10% of messages, and in this order, by: culture (8.9%), sports (6.5%), economy (5.8%), local issues (5.7%) and social life (4.3%).

A comparative analysis by mayors' political party shows that the mayors affiliated the PSOE tend to make a more partisan use of their institutional accounts during the election campaigns than the mayors from the PP: 77% versus 57.8%, respectively. This tendency marks the greater weight of the rest of the topics among the mayors of the PP. In contrast, the accounts of the socialist mayors do not

contain any tweet about politics, only two about technology and five about personal life and education.

Table 2. Distribution of mayors' tweets, by political party of affiliation and totals. Vertical percentages and totals

Topic	PP		PSOE		Totals	
	Total	vertical %	Total	vertical %	Total	vertical %
Economy	260	6.5%	67	4.2%	327	5.8%
Local	248	6.2%	71	4.4%	319	5.7%
Elections	2326	57.8%	1236	77.0%	3562	63.3%
Institutional	54	1.3%	9	0.6%	63	1.1%
Politics	15	0.4%	0	0.0%	15	0.3%
Social life	224	5.6%	20	1.2%	244	4.3%
Culture	380	9.4%	122	7.6%	502	8.9%
Education	27	0.7%	5	0.3%	32	0.6%
Sports	327	8.1%	40	2.5%	367	6.5%
Technology	14	0.3%	2	0.1%	16	0.3%
Personal life	45	1.1%	5	0.3%	50	0.9%
Other	103	2.6%	29	1.8%	132	2.3%

Source: Authors' own creation.

Practically, half of the messages relating to the municipal elections (45.8%) are messages retweeted from other accounts by mayors. This trend is slightly behind among the messages relating to technology (43.8%), economy (39.4%), personal life (38%), social life (37.3%) and sports (37.1%). In contrast, political and institutional messages are largely generated by the mayors themselves.

The comparison across political parties shows a similar trend in the weight of retweets about the elections, which is the field which generated more activity. The differences are more pronounced in other topics, although the number of messages in relation these other topics is small.

Table 3. Distribution of mayors' retweets, by political party of affiliation and totals. Totals and percentages according to the total number of tweets for each topic.

Topic	PP		PSOE		Totals	
	Total	%	Total	%	Total	%
Economy	101	38.8%	28	41.8%	129	39.4%
Local	85	34.3%	29	40.8%	114	35.7%
Elections	1073	46.1%	559	45.2%	1632	45.8%
Institutional	15	27.8%	0	0.0%	15	23.8%
Politics	3	20.0%	0	0.0%	3	20.0%
Social life	89	39.7%	2	10.0%	91	37.3%
Culture	101	26.6%	28	23.0%	129	25.7%

Education	10	37.0%	1	20.0%	11	34.4%
Sports	130	39.8%	6	15.0%	136	37.1%
Technology	6	42.9%	1	50.0%	7	43.8%
Personal life	19	42.2%	0	0.0%	19	38.0%
Other	41	39.8%	6	20.7%	47	35.6%

Source: Authors' own creation

Focusing our attention on mayors' own tweets, not retweets, about the elections, the majority of them (36.3% of the total) correspond to proposals of the party in which militate, 29% correspond to information about public meetings and other meetings programmed in the electoral agenda, 12.8% refer to achievements made during the parliamentary term as an invitation to vote, 6.9% are comments about different parties, and 1.7% refer to the results of surveys and analysis of election forecasts. Finally, 13.3% of the mayors' tweets were placed in the "other" category.

Table 4. Classification of mayors' tweets about the elections. Totals and by political parties

Mayors	Proposals	References to others	Invitation to vote	Polls	Events	Other	Total
1	26	19	45	1	31	17	139
2	1	2	3	0	3	5	14
3	41	2	7	0	32	13	95
4	79	7	35	0	22	8	151
5	25	0	7	1	18	2	53
6	0	0	0	0	0	0	0
7	0	0	1	0	2	2	5
8	44	2	8	0	12	2	68
9	9	0	6	0	6	0	21
10	136	20	74	1	34	11	276
11	81	5	30	0	48	6	170
12	62	5	9	0	16	9	101
13	28	7	5	0	28	8	76
14	7	3	13	2	10	15	50
15	12	38	3	0	1	16	70
16	0	0	1	0	0	7	8
17	34	1	6	0	40	38	119
18	51	1	3	0	110	38	203
19	7	0	4	0	5	1	17
20	13	0	0	0	27	10	50
21	58	11	6	34	26	7	142
22	9	0	3	0	45	44	101
23	1	2	3	0	11	10	27
24	108	13	7	1	84	21	234
25	26	27	16	1	47	4	121
26	0	1	9	0	5	4	19
27	16	1	3	0	35	15	70
28	0	0	2	0	0	7	9

PP	572	102	241	5	454	257	1631
PSOE	302	65	68	36	244	63	778
All	874	167	309	41	698	320	2409

Source: Authors' own creation.

Examining the variety of the tweets about the elections across the groups of mayors depending on their political party (20 mayors of the PP and 8 of the PSOE), the average number of proposals by mayor is 28.6 among those affiliated to the PP and 37.6 among those affiliated to the PSOE; the average number of references to events, rallies and electoral meetings is 22.7% among those affiliated to the PP and 30.5% among those affiliated to the PSOE; the average number of messages about achievements made in the previous legislature is 12 among those affiliated to the PP and 8.5 among those affiliated to the PSOE; the average number of references to other is 5.1 and 8.1, among those affiliated to the PP and PSOE, respectively; and the average number of messages about polls is 0.15 and 4.5, among those affiliated to the PP and PSOE, respectively.

5.3. Activity of followers

Changing the perspective, this section examines the retweets, favourites and comments generated by the mayors' tweets among their followers, according the topic of the tweets.

As mentioned, a substantial part of the tweets is retweeted by followers. Examining retweets by topics, more than 90% of the tweets about the elections were retweeted at least once, behind politics, education, sports, economics, institutional and local issues. The least successful topics in terms of the retweets they get are those relating to technology, personal and social life, all below 90%. There are no significant differences in the percentage of tweets about the elections that are retweeted by the mayors' accounts' followers depending on the political party of the mayor.

Table 4. Distribution of the mayors' tweets that are retweeted by other users, according to the mayors' political affiliation. Totals and percentages according to the total number of tweets for each topic.

Topic	PP		PSOE		Totals	
	Total	vertical %	Total	%	Total	%
Economy	238	91.54%	60	89.55%	298	91.13%
Local	220	88.71%	68	95.77%	288	90.28%
Elections	2,078	89.34%	1132	91.59%	3,210	90.12%
Institutional	48	88.89%	9	100.00%	57	90.48%
Politics	15	100.00%	0	0.00%	15	100.00%
Social life	188	83.93%	17	85.00%	205	84.02%
Culture	334	87.89%	118	96.72%	452	90.04%
Education	25	92.59%	5	100.00%	30	93.75%
Sports	300	91.74%	36	90.00%	336	91.55%
Technology	11	78.57%	2	100.00%	13	81.25%
Personal life	37	82.22%	5	100.00%	42	84.00%
Other	95	92.23%	23	79.31%	118	89.39%

Source: Authors' own creation.

In relation to the number of times that messages are retweeted, the highest average corresponds to the politics category (□=22) and sports (□=21), followed, at a great distance, by local and elections. The tweets related to the elections, the most frequent, acquire much lower values (□=10) among the followers of the accounts of the mayors of the PP mayors but are located on the top, along with local, among followers of the accounts of the mayors of the PSOE.
The median, or the core value of the dataset of the variable, allows us to analyse which topics have more success in terms of retweeting by the mayors' followers, avoiding the influence of extreme cases that can divert and distorting the average value. Table 5 shows that the most retweeted topic continues to be politics and that the least retweeted are technology and personal life. Messages relating to the elections, together with social life and behind sports, show very extreme retweeting values, significantly decreasing the value of the median with respect to the average.

Table 5. Average ($\bar{x}$), median (Med), maximum (Max) and standard deviation (SD) of retweeted messages, by topic, political party of affiliation and totals

Topic	PP				PSOE				TOTALS			
	$\bar{x}$	Med	Max	SD	$\bar{x}$	Med	Max	SD	$\bar{x}$	Med	Max	SD
Economy	10	6	136	15	3	2	18	3	9	5	136	14
Local	15	8	188	22	7	3	119	15	13	7	188	21
Elections	11	6	445	21	7	3	176	13	10	5	445	18
Institutional	6	4	30	7	3	3	6	1	6	3	30	6
Politics	22	22	37	11	.	.	.	.	22	22	37	11
Social life	13	6	445	35	6	2	34	10	13	5	445	33
Culture	8	5	94	10	3	2	15	3	7	4	94	9
Education	9	5	93	17	2	1	4	1	8	4	93	16
Sports	23	6	920	82	4	3	20	4	21	6	920	78
Technology	5	3	22	6	2	2	2	1	4	3	22	6
Personal life	4	3	16	4	2	2	4	1	4	3	16	4
Other	8	5	52	9	2	2	12	2	7	4	52	9

Source: Authors' own creation.

The distribution by parties political indicates that some of the tweets of the PP mayors have received a large volume of retweets, especially those refer to sports. The messages of the socialist mayors are retweeted to a lesser degree, with election and local messages receiving an average of six retweets. In fact, one of the messages on elections reached the highest retweeting values in 176 new accounts, followed by local messages (119).

Eliminating extreme values, the median indicates that messages about politics and sports receive the highest number of retweets from followers of the accounts of the mayors of the PP, while messages

about local issues, elections, and institutional are local news are the most retweeted topics among the followers of the socialist mayors.

Table 6. Distribution of tweets favourited by users of the mayors' accounts, according to the mayors' political party of affiliation and totals. Vertical percentages and totals

Topic	PP		PSOE		Total	
	Total	%	Total	%	Total	%
Economy	224	86.15%	51	76.12%	275	84.10%
Local	213	85.89%	57	80.28%	270	84.64%
Elections	1919	82.50%	875	70.79%	2794	78.44%
Institutional	44	81.48%	4	44.44%	48	76.19%
Politics	14	93.33%	0	0.00%	14	93.33%
Social life	183	81.70%	11	55.00%	194	79.51%
Culture	317	83.42%	82	67.21%	399	79.48%
Education	19	70.37%	4	80.00%	23	71.88%
Sports	288	88.07%	23	57.50%	311	84.74%
Technology	10	71.43%	2	100.00%	12	75.00%
Personal life	33	73.33%	4	80.00%	37	74.00%
Other	85	82.52%	16	55.17%	101	76.52%

Source: Authors' own creation.

The favourite subject among users of the mayors' accounts is, in absolute terms, the elections. However, based on the total number of tweets posted by the mayors in each topic, the favourite topics are those relating to politics (93.3%), although this percentage corresponds entirely to tweets posted by PP mayors. Politics is followed the tweets about sports, local issues and economy. Among the followers of the accounts of the socialist mayors, however, and with the exception of the two tweets on technology, the tweets about local issues, education and personal life have more success.

Table 7. Average ($\bar{x}$), median (Med), maximum (Max) and standard deviation (SD) of favourited tweets, by topic, mayors' political party of affiliation and totals

Topic	PP				PSOE				TOTAL			
	$\bar{x}$	Med	Max	SD	$\bar{x}$	Med	Max	SD	$\bar{x}$	Med	Max	SD
Economy	5	3	52	7	2	1	11	2	4	2	52	6
Local	9	5	107	15	4	2	89	11	8	4	107	14
Elections	5	3	200	11	3	1	102	7	5	2	200	10
Institutional	3	2	15	4	1	0	2	1	3	2	15	4
Politics	8	9	15	4	.	.	.	.	8	9	15	4
Social life	7	3	337	26	2	1	17	4	7	2	337	25
Culture	5	3	103	8	2	1	13	2	4	2	103	7
Education	5	1	90	17	1	1	2	1	4	1	90	16
Sports	20	5	1600	99	2	1	22	4	18	4	1600	93

Technology	3	2	16	5	1	1	1	0	3	2	16	5
Personal life	3	2	24	5	1	1	2	1	3	2	24	4
Other	5	3	45	7	1	1	7	2	4	2	45	7

Source: Authors' own creation.

Based on the number of times tweets are marked as Favourite, the tweets about sports are way ahead of all others, with an average of 18 'likes'. Followed, way behind, by tweets about local issues and politics with an average of 8 'likes'. Tweets about the elections only received an average of 5 'likes'. Excluding the extreme cases, i.e. those messages that have obtained very high numbers of 'likes', this preference is shown towards politics; while tweets about the elections receive a modest average of 2, below tweets about local issues and sports.

Focusing on the different across political parties, there are also significant differences. Eliminating the extreme values, the followers of the PP mayors preferred tweets about politics, sports and local issues; while the followers of the socialist mayors preferred tweets about local issues.

Finally, we will focus on users' responses to the mayors' tweets as indicators of the degree of dialogue achieved with citizens and the interest citizens show for certain topics.

The 5,629 tweets posted by the mayors generated 3,848 responses among citizens. The largest share of the tweets that generated responses corresponds to tweets about the elections, followed by tweets about local issues and sports.

Table 8. Users' responses and media ($\bar{x}$), maximum (max) and standard deviation (SD) of users' comments, by topic, and political party of affiliation and totals

Topic	PP				PSOE				TOTALS			
	Responses	$\bar{x}$	Max	SD	Responses	$\bar{x}$	Max	SD	Responses	$\bar{x}$	Max	SD
Economy	133	1	26	2	14	0	5	1	147	0	26	2
Local	488	2	144	10	37	1	11	1	525	2	144	9
Elections	1,893	1	128	4	521	0	28	2	2,414	1	128	3
Institutional	34	1	15	2	11	1	5	2	45	1	15	2
Politics	49	3	9	3	0	.	.	.	49	3	9	3
Social life	64	0	9	1	1	0	1	0	65	0	9	1
Culture	159	0	15	1	39	0	4	1	198	0	15	1
Education	1	0	1	0	3	1	3	1	4	0	3	1
Sports	291	1	22	2	9	0	2	0	300	1	22	2
Technology	12	1	7	2	0	0	0	0	12	1	7	2
Personal life	19	0	9	1	5	1	3	1	24	0	9	1
Other	46	0	9	1	19	1	3	1	65	0	9	1

Source: Authors' own creation.

By political parties, the PP mayors received 3,189 responses, most of them to tweets about the elections and, to a lesser extent, local issues. Meanwhile, the socialist mayors obtained 659 responses, and most of them corresponded to tweets about the elections and, to a lower degree, culture and local issues.

In relation to the number of posted tweets, the followers of PP mayors made and average of 3 and 2 comments per tweet about politics and local issues, respectively, while the followers of the socialist mayors posted in average less than 1 comment per tweet. It is worth mentioning that, given the low proportion of user feedback in relation to the posted tweets, the medians are not included since their value is equal to 0.

The following two tables summarise the differences among the topics commented the most by mayors and the tweets retweeted, favourited and commented the most by the followers of the mayors from both political parties. It should be noted that the emphasis of the PP mayors on election topics does not produce enthusiasm among their followers, who retweeted, favourited and commented the tweets about politics, local issues and sports much more.

Table 9. Comparative summary of the topics covered the most by PP mayors in their accounts (% of the total), and the tweets retweeted and favourited the most (median ranked by average values) and commented the most by users ($\bar{x}$ ranked by absolute values), from highest to lowest

Topics covered the most by mayors	Tweets retweeted the most by followers (median)	Tweets favourited the most by followers (median)	Tweets commented the most by followers
Elections	Politics (22)	Politics (9)	Politics (3)
Culture	**Local (8)**	Sports (5)	**Local (2)**
Sports	Sports (6)	**Local (5)**	Elections (1)
Economy	Social life (6)	Social life (3)	Sports (1)
Local	Elections (6)	Elections (3)	Economy (1)
Social life	Economy (6)	Economy (3)	Institutional (1)
Politics	Education (5)	Culture (3)	Technology (1)
Other	Culture (5)	Other (3)	Culture (0)
Institutional	Other (5)	Institutional (2)	Social life (0)
Personal life	Institutional (4)	Technology (2)	Other (0)
Technology	Technology (3)	Personal life (2)	Personal life (0)
Education	Personal life (3)	Education (1)	Education (0)

Source: Authors' own creation.

Regarding the preferences of the Socialist mayors, the volume of messages about the elections also stands out because it is lower than below messages about local issues in terms of retweets, favourites and comments.

Table 10. Comparative summary of the topics covered the most by Socialist mayors in their accounts (% of the total), and the tweets retweeted and favourited the most (median ranked by average values) and commented the most by users ($\bar{x}$ ranked by absolute values), from highest to lowest

Topics covered the most by mayors	Tweets retweeted the most by followers (median)	Tweets favourited the most by followers (median)	Tweets commented the most by followers
Elections	**Local (3)**	**Local (2)**	**Local (1)**
Culture	Elections **(3)**	Elections (1)	Other (1)

Local	Sports (3)	Sports (1)	Institutional (1)
Economy	Institutional (3)	Social life (1)	Personal life (1)
Sports	Social life (2)	Culture (1)	Education (1)
Other	Culture (2)	Economy (1)	Elections (0)
Social life	Economy (2)	Other (1)	Culture (0)
Institutional	Other (2)	Technology (1)	Economy (0)
Education	Technology (2)	Life staff (1)	Sports (0)
Personal life	Personal life (2)	Education (1)	Social life (0)
Technology	Education (1)	Institutional (0)	Technology (0)
Politics	Politics (-)	Politics (-)	Politics (-)

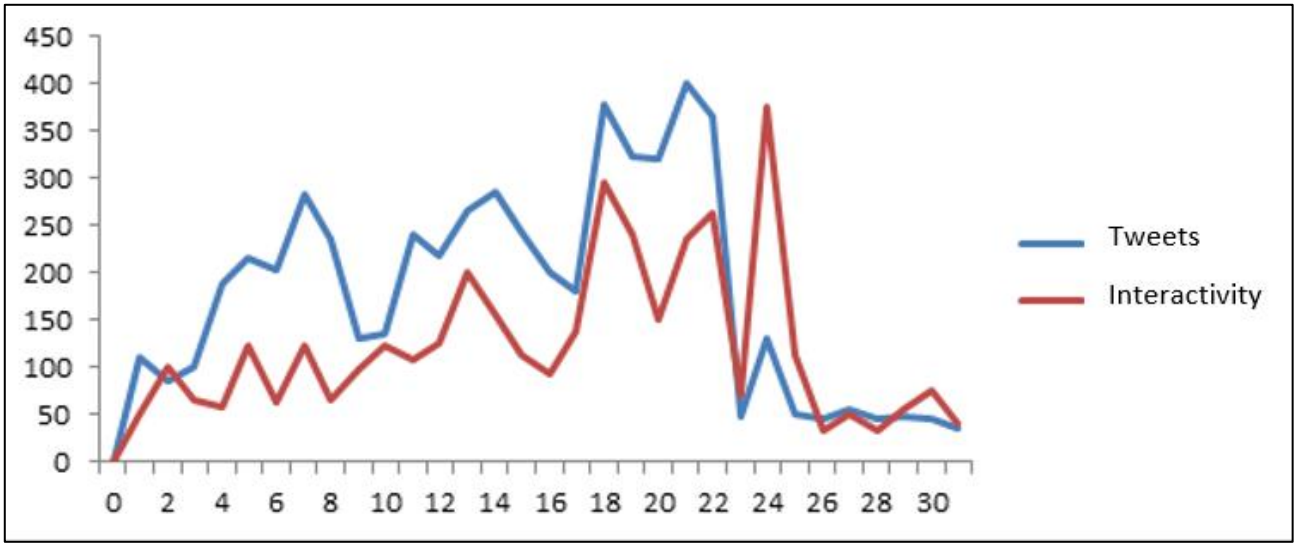
Source: Authors' own creation.

5.4. Chronology of the activity of the Twitter accounts

The activity of the mayors increased as the election campaign get closer, but it experienced a momentary decline in the first days (8-9 May) and then quickly resumed, experiencing a momentum in the last days of campaign (18 to 22 May). The activity was kept to the minimum on 23 May, the pre-election silence day (45 tweets in total from the two parties) and experienced a slight increase on the election day (24 May), and decreased once again to the minimum in the post-election period.

With regards to the activity of the mayors' accounts' followers, which is measured through their comments to the mayors' tweets (interactivity), it also experienced a rebound in the final days of the campaign, was kept to the minimum during the pre-election silence, then achieved its maximum degree on the election day, and finally decreased to a very low level after the elections.

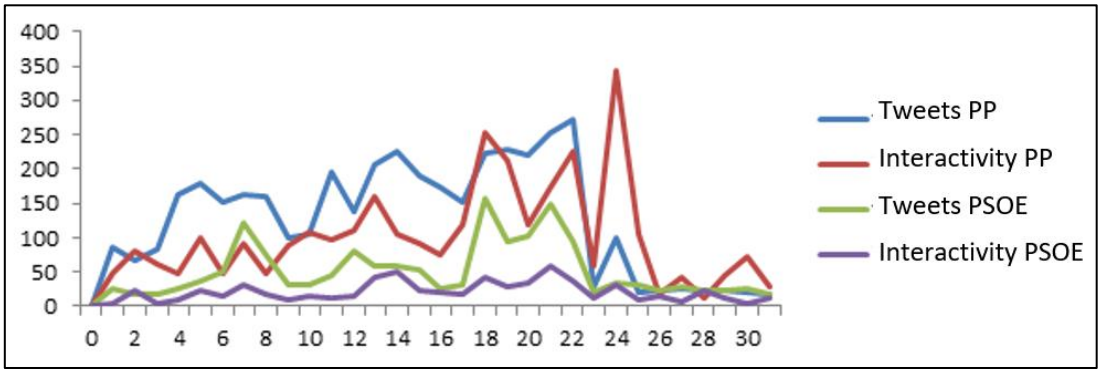
Figure 1. Activity of mayors (tweets) and users (interactivity) in the institutional accounts throughout May



Source: Authors' own creation.

The trends of the activity of the mayors of the two political parties are very similar, with the exception of the activity during the election day, when the activity of the accounts of the socialist mayors is practically non-existent.

Figure 2. Activity of mayors (tweets) and users (interactivity) in the institutional accounts throughout May, by mayor's political affiliation



Source: Authors' own creation.

Regarding the activity of the followers of the mayors' accounts, it is more flat in the accounts of the socialist mayors throughout the month, including the last days of the electoral campaign and the voting day.

Table 9. Distribution of the topics of the tweets about the elections, according to their publication date: number of tweets

	Election period	Proposals	References to others	Invitation to vote	Polls	Events	Other
All	Pre-campaign	123	26	52	5	205	68
	Campaign	743	127	212	35	462	161
	Pre-election silence	0	1	0	0	0	14
	Voting day	2	5	45	1	2	17
	Post-election	6	8	0	0	29	60
PP	Pre-campaign	86	13	44	0	99	58
	Campaign	479	76	166	4	330	132
	Pre-election silence	0	1	0	0	0	11
	Voting day	1	5	31	1	2	15
	Post-election	6	7	0	0	23	41
PSOE	Pre-campaign	37	13	8	5	106	10
	Campaign	264	51	46	31	132	29
	Pre-election silence	0	0	0	0	0	3
	Voting day	1	0	14	0	0	2
	Post-election	0	1	0	0	6	19

Source: Authors' own creation.

Finally, with regards to the extent to what Twitter has respected the pre-election silence and the election day, we observed that the publication of messages about the elections plummets in these days, to only 15 tweets in the pre-election silence day (of which 12 were posted by PP mayors), and to 72 on the election day (of which 55 were posted by PP mayors). The highest activity was maintained during the invitation to vote (in general and not for a particular candidate) in the elections day.

6. Discussion and conclusions

Based on the great potential of social networks to reach and mobilise citizens during an election period through the dialogue between candidates and the citizenry on the closest subjects that concern them at the local level, this article analyses the activity of the institutional accounts of the PSOE and PP municipal representatives around the municipal elections of May 2015.

A first look at the presence on Twitter of the mayors affiliated to the aforementioned political groups shows the high percentage of active accounts, which could indicate a predisposition to give voice to citizens. While there was great variability in terms of publications and the followers of each of the individual accounts, there were not significant differences in terms of the volume of posts in the sample of active accounts of the mayors of both political parties.

The results of the analysis reveal that the institutional accounts make a partisan use during the election campaign, and that this occurs to a greater degree among the socialist municipal representatives. Likewise, the high percentage of tweets about the election campaign that are retweeted by the mayors in their accounts suggests that they largely rely on the messages generated by their parties, so they do not take advantage of these channels of communication to better approach the local problems of their fellow citizens. It is important to mention that this trend to retweet content generated in other accounts is very high across all the topics under study, although it is outstanding in this area.

Regarding only the tweets about the elections, the socialist mayors tend to make more proposals and references to electoral meetings. On the contrary, the PP mayors tend to make more invitations to vote by appealing to the achievements made during the previous legislature. Also significant is the difference in terms of the references to other parties. Here it is important to note that the socialist mayors addressed this subject more but by promoting the achievements of the national government, led by the PP.

In absolute terms regarding the activity of users, the messages about the elections enjoyed a strong preference, dissemination and comments among the followers of the accounts of the mayors, regardless of their political affiliation. However, the situation changes with regards to the volume of tweets posted by the mayors, and in this case the messages on local issues are among the most retweeted, favourited and commented among the followers of the mayors from both parties, but particularly the socialist mayors.

In short, it is worrying that mayors mainly use their institutional accounts for partisan and electioneering purposes, because this study has proven that citizens are more interested in the events and developments that affect their most immediate environment: their municipality.

On the other hand, while it is true that the tweets posted in the accounts of each candidate during the election period remain there, mayors do respect the pre-election silence and the voting day, when

they only invite citizens who get out and vote. These data indicate that the pre-election silence is respected in non-conventional media.

It is convenient to further delve into citizens' communication expectations from the government and political leaders. In this sense, if local politicians are actually willing to establish fluid interactivity with citizens, it would be desirable for them to address those topics that arouse the interest of the public and to make a distinction between of their two facets in Twitter: as members of a particular party and as the leader of the municipal political administration.

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