



## [en] The usage of Twitter from the Spanish media during the elections<sup>1</sup>

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Received: October 26, 2017 / Accepted: February 20, 2018

**Abstract.** Traditional media sources have adopted Twitter as a canal to broadcast information across digital audiences. This study has the objective of analyzing the characteristics of the tweets published by Spanish media sources during the twelve months in which presidential electoral processes took place. This was done to test the differences in the use of this platform, according to the content of the coverage, and the phase in which it was published. Our research uses a quantitative methodology, where we used computerized content analysis for Twitter publications that different media made during 2015 and 2016. Our results revealed a promotional use of tools such as the hashtag, or mentions in media with less followers. At the same time, political information was characterized by containing a higher use of mentions and statements by the candidates, especially during the election campaigning, favoring the creation of echo chambers in the political Twittersphere.

**Keywords:** Twitter; mass media; political information; campaigns; social networks.

## El uso de Twitter de los medios de comunicación españoles en periodo electoral

**Resumen.** Los medios de comunicación tradicionales han adoptado Twitter como otro canal por el que difundir su información y llegar hasta las audiencias digitales. Este estudio tiene como objetivo analizar las características de los tuits publicados por los medios españoles durante doce meses en los que se producen dos procesos electorales, para comprobar las diferencias en la utilización de esta plataforma según el contenido de la cobertura y la fase en que se publica. La investigación se fundamenta en una metodología cuantitativa, en la que se implementa un análisis de contenido computarizado de las publicaciones en Twitter que hacen los distintos tipos de medios entre 2015 y 2016. Los resultados revelan un uso promocional de herramientas como el hashtag o las menciones en los medios con menos seguidores. Asimismo, la información política se caracteriza por contener un

<sup>1</sup> This paper is financed by the Spanish Ministry of Economy, Industry, and Competitiveness under the framework of R&D+i funds of the National Plan "Communication flows in processes of political mobilization: media, blogs, and opinion leaders" (CSO2013-43960-R and CSO2016-77331-C2-1-R) and by the Chilean Ministry of Education (Fondecyt 1150545), National Commission for Scientific and Technological Research (CONICYT).

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mayor número de menciones y declaraciones de candidatos, especialmente durante la campaña electoral, favoreciendo la aparición de cámaras de eco en la esfera política en Twitter.

**Palabras clave:** Twitter; medios de comunicación; información política; campañas; redes sociales.

**Summary.** 1. Introduction; 1.1. Spanish news media and the construction of communities on Twitter; 1.2. Twitter and political communication; 1.3. Research Questions. 2. Methodology. 3. Results; 3.1. RQ1: Are the differences among Spanish media in their *tweeting* behavior?; 3.2. RQ2: Are there differences in how Spanish media covers political information in Twitter?; 3.3. RQ3: There are differences in how Spanish media covers political campaigns in Twitter?. 4. Conclusions. 5. References.

**How to cite this paper:** Fenoll, Vicente; Cárcamo-Ulloa, Luis; and Saez-Trumper, Diego (2018): "The usage of Twitter from the Spanish media during the elections". *Estudios sobre el Mensaje Periodístico* 24 (2), 1223-1238.

## 1. Introduction

Twitter has been converted in an online channel to broadcast information in the hybrid media system (Chadwick, 2013). This free and global microblogging platform permits only 140 characters of text to be sent in each message (tweets). This spatial limitation means that different functionalities of Twitter, such as Hashtags and @replies play an important role in message composition. Hashtag is a Twitter convention, where a keyword is preceded by # symbol, and is used as user generated tag to identify a specific topic (for example an event), and @reply is the Twitter convention to mention another user. As it is an online media, Twitter allows the inclusion of hypertext links to other content, as well as text, images and videos. Hence, the possibility to broadcast audiovisual elements can favor dependency over television (Baviera, Garcia-Ull & Cano, 2017).

According to Garret and Dazinger (2011), since 2008, the Internet has become the largest source of information and political expression. However, the Internet has also changed the way that citizens access information, reshaping the relationship between audiences and big media corporations (Sáez-Trumper, 2011).

The Digital Report News 2016 highlighted that even though most people are still reading news from well-known and trustable media holdings, the channels used to access that information are changing. This data varies depending from countries and demography. For example, in countries like Norway, Finland and Denmark Websites or Apps of traditional media sources are the starting point to access news. On the other hand, in countries like Italy, Spain, Poland and the Czech Republic, people start their news browsing using search engines such as Google. Another group including Greece, Hungary and Brazil, tends to use Social Media as the access point for news reading (Newman, Levy & Nielsen, 2016:91).

Although we cannot assume that Social Media is the largest source of information for the entire population, current studies show a trend that people under 35 years old consider the Internet as the best news source (Newman & Levi, 2013). Obviously, this age threshold is likely to change as the current generation ages. In Spain, Twitter is the fourth most used Online Social Network (OSN) platform, reaching people younger and older than over 35 years old (Newman, Levy & Nielsen, 2016:43).

## 1.1. Spanish news media and the construction of communities on Twitter

On Twitter, all media types have the same possibility to emit information, but the conditions of this particular ecosystem generate effects that are necessary to clarify. Paul Adams (2011) discussed the relevance of the “influencers” proposed by Gladwell (2006) as an axiomatic effect in which persons who are a) highly connected, b) highly persuasive and c) with credibility in their field guarantee successful diffusion of information. This proposal by Gladwell is known as “the law of the few”. Adams (2011) backs this claim, showing that studies carried out by Bakshy and colleagues (2011) conclude that in a corpus of 74 million tweets, only a few dozen of them generate thousands of retweets, and only several of the latter reach 10,000 retweets. From the same sample, 98% of the tweets did not obtain retweets on Twitter.

Influence, even if it is confined to a few, is not given automatically by the quality or accumulated prestige of the sender. If the “law of few” always functions, news media from any country (those that have many followers) would be guaranteed diffusion and influence on the web, but this influence is variable. For Adams, a grand influence, and maybe most important, is what happens around the subject. On social networks, the opinion of one’s own network is important in terms of influence. Influence emerges from what happens around the subject, and this proposes the idea that information flows in a determined social context. For example, in Spain, news media influence differently from one circle to the next.

Another important aspect refers to the configuration of communities around news media. Requejo & Herrera (2014) analyzed the twitter behavior of the largest media sources in Spain in 2011 and 2014 and concluded that these media do little to create community. This study also showed that the main Spanish media a) used Twitter as a means to replicate news from traditional media, b) in very few occasions mentioned persons or entities with their Twitter accounts, c) was not a primary concern to answer their followers, d) heavily used tweets to self-promote, e) used the retweet internally, meaning to their own journalist and f) profusely integrated internal links from the same news source.

In synthesis, Spanish news media “does not explore the possibilities of conversation or collaborations through Twitter. Followers, it appears, are only interested when they “are better” than those from the competition.” (Requejo y Herrera, 2014:246). Puebla & Gomes-Franco (2015) confirm the underutilization of the conversational potential of Twitter in Spanish and Portuguese news. Recent analysis from Tous and others (2015) shows that the Catalan newspaper *La Vanguardia* constructs a more active audience, oriented to sway public opinion, but in general, the most homogenous use of Twitter in Spanish media is to divulge breaking news.

## 1.2. Twitter and political communication

Twitter has become the preferred data source for researchers in political communication (Graham, Jackson, & Broersma, 2016). Among others, there are studies about how parties and candidates use OSN (Alonso-Muñoz, Marcos-

García, & Casero-Ripollés, 2017; Gamir, Cano, & Calvo, 2017; Pallarés, & García, 2017), interactions inside social movements (Hilbert, Vásquez, Halpern, Valenzuela, & Arriagada, 2016), sentiments expressed in political campaigns (Baviera, 2017; Groshek & Al-Rawi 2013), statement and coverage bias from media and Twitter communities (Sáez-Trumper, Castillo y Lalmas, 2013); and even the usage of OSN as source for predicting election results (Dokoohaki, Zikou, Gillblad, & Matskin, 2015; Tumasjan et al., 2010; Sáez-Trumper, Meira y Almeida, 2011). Meeks (2016) pointed out that in the U.S.A., each party tends to push their own agenda, ignoring the opponents. The evolution and usage of Twitter conventions such as retweets and mentions has been widely studied (García-Gavilanes et al., 2014), but out of context of news media.

In Spain, we found studies about the use of pictures in political campaigns in OSN (Puentes-Rivera, Rúas-Araújo, & Dapena-González, 2017; Quevedo Redondo, Portalés-Oliva, & Berrocal Gonzalo, 2016) and research about the virality of Tweets and citizen debate on Twitter during the election campaigning (Baviera et al., 2017; Congosto, 2014; Márquez, 2017), or in other processes of political mobilizations such as the “Indignados” movement (González-Bailón, Borge-Holthoefer, & Moreno, 2013). Studies also compare publications made during campaigns by media, candidates and opinion leaders, centered on the thematic distribution of Tweets (López García, Cano, & Argilés, 2016) as well as on their protagonists (Fenoll; García-Ull y Rodríguez-Ballesteros, 2016).

The objective of this study is to analyze the differences that the news media has in the manner of using these tools for composing their messages in different informative contexts. We aim to decipher if these actors followed the same communicative pattern in writing Tweets; or on the contrary, if there existed discrepancies in the coverage of political information and election campaigns.

To test these differences in use, we focused on publications from Spanish news media on Twitter during 2015-2016, where two consecutive election periods were produced. It is important to mention that the repetition of the General Elections was due to the impossibility of the political parties to reach an agreement on how to form a the government after the first vote, which was an unprecedented event in Spanish democracy. This situation arose due to the appearance of two new national political parties that rocked the traditional bipartisan system that characterized the political scene since the return to democracy. Along with the two majority parties that had alternated in power (Partido Popular, conservatives; and Partido Socialista Obrero Español, liberals) two new parties emerged (“Podemos,” progressives; and Ciudadanos, liberals) with the capacity to influence in government formation. With this act, the Spanish political scene of only two large influencing political blocks was reconfigured

### 1.3. Research Questions

Reviewing the state of the art, although we found studies that focus on the impact of social networks on the professional routines of journalists coming from different legacy media (Newspapers, radio stations, and TV Networks) and others coming from “online-only” news media, results are always shown aggregated, and it is not possible to discern use differences according to the type of media. Additionally, we

we have not found studies from the political communication perspective analyzing exclusively the usage of Twitter tools such as hashtags, replies, retweets (RT) and links; and in the case for tweets published by news media, citing sources using quotation marks. Diverse research carried out to date tackle the use of these functionalities in a partial form, without delving into the manner in which each news media uses them to compose their messages for this new online broadcasting platform.

Therefore, our research questions focus on the different usages of those functions depending on the media-type in the Spanish context considering also the topics covered, such as general information, political news and specific political campaign information.

Specifically, our research e questions are:

RQ1: Are the differences among Spanish media in their *tweeting* behavior?

RQ2: Are there differences in how Spanish media covers political information in Twitter?

RQ3: There are differences in how Spanish media covers political campaigns in Twitter?

## 2. Methodology

In this study, we analyzed tweets published by Spanish news media between 2015 and 2016. During this period, two General Elections were held in Spain (12.20.2015 and 06.26.2016). This is an exceptional communicative context to analyze the behavior of the media regarding the coverage on Twitter of elections that evoked great interest in public opinion (López García, 2016).

Our study used a dataset of 650573 tweets, published by Spanish media sources, over the period of twelve months (August 1<sup>st</sup> 2015 to July 31<sup>st</sup> 2016). Our corpus of media sources was a comprehensive list that included all digital media, newspapers, radio and TV stations listed in the “Estudio General de Medios de la Asociación para la Investigación de los Medios de Comunicación en España” (Table 1).

Table 1. List of media source and their Twitter statistics

Media Type	Media	Followers (M)	Tweets
Digital	20m	1,053,013	34,290
	elconfidencial	498,211	30,593
	libertaddigital	66,012	23,558
	publico_es	680,940	46,533
Newspapers	abc_es	1,006,702	47,102
	elcorreo_com	77,652	12,269
	ElMundoEspana	7,933	8,688
	elpais_espana	259,517	6,608
	elperiodico	343,992	43,070

	Farodevigo	86,796	20,133
	lanuevaespana	100,040	16,755
	larazon_es	233,953	30,336
	LaVanguardia	575,202	57,670
	lavozdegalicia	260,649	22,270
	levante_emv	104,099	26,614
<b>Radio</b>	CanalSurRadio	15,052	1,167
	canalsurradio1	12,560	1,430
	CatalunyaRadio	111,197	8,237
	cope_es	225,405	10,586
	esRadio	63,744	5,100
	La_SER	914,726	14,720
	OndaCero_es	369,285	21,888
	rac1	151,889	1,275
	radioeuskadi	24,076	13,382
	RadioGalega	6,838	6,846
	rne	242,221	3,837
<b>TV</b>	A3Noticias	1,242,793	34,461
	canalsur	109,125	1,116
	DebatAlRojoVivo	263,978	9,654
	Desayunos_tve	14,575	7
	informativost5	461,146	17,605
	Lanoche_24h	101,694	2,021
	mananascuatro	108,749	5,603
	RTVA	102,449	5,183
	rtve	932,705	20,451
	SextaNocheTV	121,684	1,268
	sextaNoticias	726,940	26,722
	telecincoes	1,172,551	11,525
<b>Total</b>	38	515,948	650,573

The unit of analysis is the Tweet, and the contextual unit is the media type. For data collection we used the Twitter API (<https://dev.twitter.com/rest/public>). We followed all the accounts of the media sources listed in Table 1, and downloaded every single tweet, logging the text of the Tweet as well the author information, date, images and links.

Our study used a quantitative approach. We used the WordStat software package (Provalis Research, 2016), that allows quantitative analysis on text datasets. This package has been used in a set of studies about media content analysis (Lowry, Xie & Witte, 2008; Luo, Meier & Oberholzer-Gee, 2012), user comments on media websites (Chen & Moeller, 2014), and in general OSNs studies (Bruns & Burgess, 2012; Conway, Kenski & Wang, 2013; Groshek & Al-Rawi, 2013).

In order to answer our first research question, we used the dictionary tool from WordStat, to measure the frequency of hashtags, @replies (mentions), URLs and quotes. The output of Wordstat was exported to SPSS, where we applied a one-way

ANOVA test and a post hoc Scheffe test to search for significant statistical differences in usage of the previously mentioned conventions, across different media types. When the data did not show homoscedasticity, we implemented a Welch ANOVA, and a post hoc Games-Howell test. We also applied the Chi-square test to check difference between media types in the usage of retweets.

To answer RQ2, we used the Wordstat disambiguation tool, that establishes rules for detecting tweets that mention certain entities, in our case, the top-4 political parties (according to their electoral results) in Spain: Partido Popular (PP), Partido Socialista Obrero Español (PSOE), Unidos Podemos (Podemos) and Ciudadanos (C's) and their candidates Mariano Rajoy (PP), Pedro Sánchez (PSOE), Pablo Iglesias (Podemos), and Albert Rivera (C's). Then, using the Protagonist variable, we were able find the tweets talking about these parties and candidates. In order to determine if there were significant differences among media types, we applied the t-student test for independent samples.

To answer the RQ3, we classified the tweets using their timestamp, and categorized them as: non-election, campaign and post-election. The campaign category considered all the tweets published during the official (legal) days of campaign from: 12-04-2015 to 19-12-2015 and from 06-10-2016 to 06-25-2016. The post-election category groups the tweets published next seven days after each election period. All the remaining tweets were categorized as non-election.

Using an ANOVA test, we determined if there existed statistically significant differences in the means by which different media use characteristic functions of Twitter during three phases.

### 3. Results

#### 3.1. RQ1: Are the differences among Spanish media in their *tweeting* behavior?

To look for the differences in Twitter use according to the media type, we performed an ANOVA-Welch test, where we used the percentage of tweets using hashtags, @replies, URLs and quotes as dependent variables and the media type as an independent variable.

Table 2. Percentage of hashtags, @replies, URL and quotes per media type.

	Digital		Newspaper		Radio		TV	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Hashtag	1.26	2.83	2.06	4.21	2.39	4.28	1.58	3.20
@reply	2.44	3.96	1.24	3.01	5.11	6.08	2.80	4.83
URL	8.04	3.39	9.64	4.03	8.99	3.67	9.04	3.07
Quotes	0.91	2.28	0.87	2.25	1.12	2.39	1.16	2.40

Results showed significant statistical differences in hashtag usage according to the media types [ $F(3, 273668.29) = 2609.22, p < .001$ ]. The post hoc Games-Howell test showed that the average of hashtags was significantly higher for radio

station accounts, being the digital media sources that ones with the lower usage of that convention.

We also found significant differences in the usage of the mention convention,  $F(3, 233709.41) = 15155.05, p < .001$ . The multiple comparison test showed that again, radio stations tended to use more @replies in their posts, especially to promote their shows, guests and hosts, like in the following tweet: “Con #AntonioÁlvarez, @JoseMariaCalado, @TomasFurest, @JosAntonioRosa, @JavierjPardo @curroramos. Narra @plazaro67” (@CanalSurRadio, 10.07.2016)]. The newspapers’ accounts, on the other hand, showed the lowest usage of this convention.

There were also significant differences  $[F(3, 275642.50) = 6039.42, p < .001]$  in the amount of URLs (links) posted by each media type. The Games-Howell test showed that the newspapers had the highest usage hyperlinks in their posts. Moreover, in some cases, they just posted a link without any additional text: “<https://t.co/hPbxtjWwnV> <https://t.co/mAxFFXxF2Nn> <https://t.co/QpiX0vYXjW>” (larazon\_es, 06-02-2016). The lowest usage of links was found from the digital (online) media sources.

Finally, the ANOVA test showed that use of quotations was also significantly different in each media type  $[F(3, 262845.43) = 621.07, p < .001]$ . The post hoc test showed that TV stations tended to use more quotations than any other media type. Surprisingly - newspapers had the lowest value for this item.

Table 3 shows the number of retweets published for each media type. The Chi-square suggested a statistically significant difference for this item  $[\chi^2(3, N = 650,573) = 20563.74, p < .001]$ .

Table 3. Number of retweets by media type [0 cells (0.0%) have expected count less than 5. The minimum expected count is 9,362.14]

			Tipology				Total
			Digital	Newspapers	Radio	Tv	
Type	Tweet	Count	112,784	277,739	73,085	118,118	581,726
		%	83.6%	95.3%	82.6%	87.1%	89.4%
		Adjusted Residual	-78.6	138.4	-70.8	-31.2	
	Retweet	Count	22,190	13,776	15,383	17,498	68,847
		%	16.4%	4.7%	17.4%	12.9%	10.6%
		Adjusted Residual	78.6	-138.4	70.8	31.2	
Total	Count	134,974	291,515	88,468	135,616	650,573	
	%	100.0%	100.0%	100.0%	100.0%	100.0%	

This analysis showed that newspapers published more original content, while all the other media types, especially the digital ones, used more retweets, specifically from their sections (with other accounts) and journalists, for example: “RT @tableroglobal: DIRECTO ‘Hemos logrado mantener el €’ 'Nunca nos opusimos a acogida refugiados’ Lo de @marianorajoy no tiene nombre” (@publico\_es, 12-14-2015).



### 3.2. RQ2: Are there differences in how Spanish media covers political information in Twitter?

Analyzing political coverage behavior, we applied the t-student test to compare the usage of the twitter conventions (hashtags, @replies, URLs, and quotes) in tweets mentioning political parties and leaders, against the rest of the tweets.

Table 4. Percentage of hashtags, @replies, URLs and quotation marks according to the sender of the tweet

	Non-political		Politics	
	Mean	SD	Mean	SD
Hashtag	1.90	3.90	1.35	2.78
@reply	2.34	4.40	2.32	3.89
URL	9.24	3.75	8.02	3.26
Quotes	0.82	2.15	2.13	3.01

We found important differences in these two sets. The use of hashtags was significantly higher in the non-political tweets set [ $t(122869.47) = 48.76, p < .001$ ], compared with the political ones. For example, tweets related to soccer showed a higher presence of those tags: <https://t.co/NNIbMLQUk5> # “#EnDirecto GOL de #Messi | #Barcelona 1-0 #EspanyFCB Espanyol #LigaBBVA” (@lavanguardia, 05-8-2015).

We did not find significant differences in the use of @replies [ $t(106025.07) = 1.72, p = .084$ ], that were common across both datasets.

Hyperlinks were also common in both datasets, however the t-student test showed a significant difference [ $t(107167.98) = 95.82, p < .001$ ] compared to the non-political tweets, with a higher amount of these kind of tweets.

The latter scenario changes when quotes are considered. Political tweets showed a higher presence of quotations than the non-political ones [ $t(88400.93) = -117.86, p < .001$ ]. In that sense, the literal quotations from candidates are likely to appear in tweets: “DIRECTO #PartidoDeVuelta Iglesias ‘La gente es suficientemente madura...’ Rivera ‘¡Maduro!’ Iglesias ‘Muy sagaz..’” (@elperiodico, 05.06.2016).

Table 5 shows the number of retweets according to the tweet category. The Chi-square-yates descriptor suggested a significant difference in both sets [ $\chi^2(1, N = 650,573) = 6.61, p = .010$ ].

Table 5. Number of retweets according to the protagonist of the tweet. [0 cells (0.0%) have expected count less than 5. The minimum expected count is 8,191.08]

Type	Tweet	Protagonist		Total	
		Non-political	Political		
	Count	512,308	69,418	581,726	
		%	89.4%	89.7%	89.4%
		Residual	-2.6	2.6	
	Retweet	Count	60,863	7,984	68,847
		%	10.6%	10.3%	10.6%

		Residual	2.6	-2.6	
<b>Total</b>		Count	573,171	77,402	650,573
		%	100.0%	100.0%	100.0%

This test shows that there are more retweets in the non-political set. The source tends to elaborate more original content when they cover political information related to parties and leaders.

### 3.3. RQ3: There are differences in how Spanish media covers political campaigns in Twitter?

To test the difference in the coverage of political information during elections, we created a subset that only included tweets mentioning parties and leaders, and split them according to the period (no elections, campaign, post-election). First, we compare this dataset with the full dataset, showing - as expected - that the number of political-related tweets are significantly higher during the campaigns and post-election periods.

Table 6. Number of retweets with a political protagonist according to publication phase [0 cells (0.0%) have expected count less than 5. The minimum expected count is 3,764.85]

		Phase				Total
		Non-electoral	Campaign	Post-election		
Protagonist	Non-political	Count	494,195	53,008	25,968	573,171
		%	89.0%	83.6%	82.1%	88.1%
		Residual	51.6	-36.7	-34.0	
	Political	Count	61,340	10,386	5,676	77,402
		%	11.0%	16.4%	17.9%	11.9%
		Residual	-51.6	36.7	34.0	
Total	Count	555,535	63,394	31,644	650,573	
	%	100.0%	100.0%	100.0%	100.0%	

An ANOVA confirms that the period of publication had an impact on the dependent variables, becoming higher during the campaign and post-election period (see Table 7).

Table 7. Percentage of hashtags, @replies, URL y quotes in political tweets according to publication phase

	Non-electoral		Campaign		Post-election	
	Mean	SD	Mean	SD	Mean	SD
Hashtag	1.15	2.58	1.79	2.94	2.74	3.88
@reply	2.33	3.92	2.54	3.97	1.81	3.27
URL	8.03	3.27	7.91	3.20	8.12	3.25
Quotes	2.13	3.01	2.28	3.05	1.88	2.90

The use of hashtags was highly correlated with the period of the post [ $F(2, 11085.07) = 634.89, p < .001$ ]. The Games-Howell test showed that this convention appeared more frequently in the post-election period, especially with hashtags related with opinion polls and the result of the elections. On the other hand, the use of hashtags was low during the non-election period.

The number of @replies was also dependent on the period of publication [ $F(2, 12338.50) = 83.30, p < .001$ ]. The Games-Howell test showed that this convention was used more during the campaign period, especially to promote TV debates and candidate interviews: “@MarianoRajoy, @SanchezCastejon, @Pablo\_Iglesias\_y @Albert\_Rivera ya están preparados. #Debate13J en @LinternaCOPE” (@cope\_es, 13.06.2016). However, this decreased just after the election.

One-way ANOVA showed that the usage frequency of hyperlinks was also associated to publication period [ $F(2, 77399) = 8.19, p < .001$ ]. The Scheffé test showed an increment of URLs posted in the post electoral period, compared with campaign period.

The results of the ANOVA-Welch also showed that quotations were also related to the publication period [ $F(2, 11958.77) = 35.51, p < .001$ ]. The Games-Howell test shows that this item was more common during the campaign, used to quote the candidate’s statements: “El PP defiende a Rajoy ante la ‘soberbia’ de un ‘maleducado’, ‘chulo’ y ‘demagogo’ Sánchez” (@elconfidencial, 15.12.2015). In the post-election period, the usage of quotations decreased significantly.

Table 8 also shows differences in the usage of retweets in the political dataset according to the period of publication. The results of Chi-squared test highlight the differences across periods [ $\chi^2(2, n = 77,402) = 72.76, p < .001$ ].

Table 8. Number of retweets with non-political protagonists according to publication phase [0 cells (0.0%) have expected count less than 5. The minimum expected count is 585.48]

		Phase			Total	
		Non-electoral	Campaign	Post-election		
Type	Tweet	Count	55,156	9,085	5,177	69,418
		%	89.9%	87.5%	91.2%	89.7%
		Residual	4.2	-8.0	3.9	
Type	Retweet	Count	6,184	1,301	499	7,984
		%	10.1%	12.5%	8.8%	10.3%
		Residual	-4.2	8.0	-3.9	
Total	Count	61,340	10,386	5,676	77,402	
	%	100.0%	100.0%	100.0%	100.0%	

This table shows that media sources tended to publish more original content out of the campaign period. This can be related with new accounts specially created to cover the elections by some media sources, that later retweet the content from those accounts. As example, we can see the post from *El Confidencial*, that retweet from an adhoc account created by the same entity, just to cover the elections; “RT @ECElecciones: Cospedal no ve a Ciudadanos rival y 'carga' contra los ‘frívolos’ políticos 'showman' <https://t.co/fFc2sp5WPX>” (@elconfidencial, 12-04-2015).

## 4. Conclusions

The results of our study show important differences in how different media types (newspapers, digital media, TV and Radio stations) use Twitter conventions such as hashtags, mentions or retweets. Accounts with less followers use more hashtags as a strategy to gain more attention and visibility from the users beyond their followers (Alonso-Muñoz, Marcos-García, & Casero-Ripollés, 2017; Bruns & Burgess, 2012). Equally, they tend to mention other accounts and do more retweets, to self-advertise, and create synergy within their different programs and journalists, and amplify their presence in Twitter (Bruns & Burgess, 2012).

Similar to other studies about journalists' behavior in Twitter (Carrera Álvarez et al., 2012; Fenoll; García-Ull y Rodríguez-Ballesteros, 2016), our results show that traditional media uses tweets to spread and distribute preexisting information on their own website, with posts that - occasionally - just have a link to their own news or live streaming.

We also saw particularities on how political information is covered by the traditional media through when they use Twitter. The post mentioning political parties and leaders tends to have a higher number of mentions and literal quotations, leaving less space and limiting the use of hashtags, URLs and retweets.

Our study also points to differences in the post behavior of the media sources depending on the political context. Specifically, we were able to measure differences in the posts during political campaigns, post electoral periods, and when there are no elections around, where we found decrease in the number of mentions of political parties and leaders. The percentage of hashtags, mentions, retweets and quotations also depended on the political period, showing different media strategies during elections. During the electoral campaign, media sources used more retweets, quotations and mentions to politicians, in order to promote their interviews and debates. Therefore, they created echo chambers caused by the feedback between media coverage and the political Twitter-sphere (Burgess & Bruns, 2012; Graham, Jackson, & Broersma, 2016). However, after the elections, the media sources stopped posting candidates' quotations, and increased the use of hashtags and links related with the election results.

Our results are focused on the Spanish media coverage of elections using Twitter. For future work, we want to explore the same phenomena in other countries in order to generalize our results or to discover particularities in the Spanish media environment.

## 5. References

- Adams, Paul (2012): *Grouped: How Small Groups of Friends Are the Key to Influence on the Social Web*. Berkeley, CA, New Riders Publishing.
- Alonso-Muñoz, Laura; Marcos-García, Silvia; y Casero-Ripollés, Andreu (2017): "Political leaders in (inter) action. Twitter as a strategic communication tool in electoral campaigns". *Trípodos*, 39, 71-90. Retrieved from [http://www.tripodos.com/index.php/Facultat\\_Comunicacio\\_Blanquerna/article/view/381/435](http://www.tripodos.com/index.php/Facultat_Comunicacio_Blanquerna/article/view/381/435)

- Bakshy, Eytan; Hofman, Jake M.; Mason, Winter A.; and Watts, Duncan J. (2011): "Everyone's an influencer: quantifying influence on Twitter". In *Proceedings of the fourth ACM international conference on Web search and data mining*, February, 65-74). ACM. Doi: 10.1145/1935826.1935845
- Baviera, Tomás (2017): "Técnicas para el análisis del sentimiento en Twitter: Aprendizaje Automático Supervisado y SentiStrength". *Dígitos. Revista de Comunicación Digital*, 3 (1), 33-50. Retrieved from <http://revistadigitos.com/index.php/digitos/article/view/74/39>
- Baviera, Tomás; García-Ull, Francisco José; y Cano, Lorena (2017): "Twitter: ¿protagonismo vicario?". In López, Guillermo y Valera, Lidia (Eds.): *Pantallas electorales. El discurso de partidos, medios y ciudadanos en la campaña de 2015*. Valencia, Editorial UOC, pp. 167-192.
- Bruns, Axel, & Burgess, Jean (2012): "Researching news discussion on Twitter: New methodologies". *Journalism Studies*, 13 (5-6), 801-814. Doi: 10.1080/1461670X.2012.664428
- Carrera Álvarez, Pilar; Sainz de Baranda Andújar, Clara; Herrero Curiel, Eva; y Limón Serrano, Nieves (2012): "Journalism and Social Media: How Spanish Journalists are Using Twitter". *Estudios sobre el Mensaje Periodístico*, 18 (1), 31-53. Doi: 10.5209/rev\_eSMP.2012.v18.n1.39353
- Chadwick, Andrew (2013): *The Hybrid Media System: Politics and Power*. Oxford, Oxford University Press. Doi: 10.1093/acprof:oso/9780199759477.003.0004
- Chen, Hsin-Liang & Moeller, Robin A. (2014): "A New Research Agenda on Mass Communication, Social Informatics, and Children's Literature in US: Implications for Researchers in Asia-Oceania Region". In Du, J; Zhu, Q.; & Koronios, A. (Eds.): *Library and Information Science Research in Asia-Oceania: Theory and Practice*. Hershey, PA, IGI Global, pp. 165-185. Doi:10.4018/978-1-4666-5158-6.ch010,.
- Congosto, Mariluz (2014): "Viralidad de los mensajes en Twitter en las Campañas Electorales". In *III Congreso en Comunicación Política y Estrategias de Campaña, Santiago de Compostela* (Vol. 24, pp. 1-19). Retrieved from: <http://ictlogy.net/bibliography/reports/projects.php?idp=2723&lang=es>
- Conway, Bethany Anne; Kenski, Kate; and Wang, Di (2013): Twitter use by presidential primary candidates during the 2012 campaign. *American Behavioral Scientist*, 57 (11), 1596-1610. Doi: 10.1177/0002764213489014.
- Dokoochaki, Nima; Zikou, Filippia; Gillblad, Daniel; and Matskin, Mihhail (2015): "Predicting Swedish Elections with Twitter". In *Proceedings of the 2015 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining 2015*, August, pp. 1269-1276). ACM. Doi: 10.1145/2808797.2808915.
- Fenoll, Vicente; García-Ull, Francisco José; y Rodríguez-Ballesteros, Paula (2016). "Valoración de candidatos en Twitter durante procesos electorales. El caso de las elecciones autonómicas valencianas de 2015". In *Proceedings of the V Congreso Iberoamericano de Comunicación*, July, pp. 595-605. AE-IC. En: [http://www.madrid2016.org/wp-content/uploads/aeic2016madrid\\_comunicaciones\\_vdef\\_ok.pdf](http://www.madrid2016.org/wp-content/uploads/aeic2016madrid_comunicaciones_vdef_ok.pdf)
- Gamir, José; Cano, Lorena; y Calvo, Dafne (2017): "La campaña electoral de 2015 en cifras. La presencia en la blogosfera, Facebook y Twitter de los cabezas de lista provinciales de PP, PSOE, Podemos y Ciudadanos". In López, Guillermo & Valera, Lidia (Eds.): *Pantallas electorales. El discurso de partidos, medios y ciudadanos en la*

- campana de 2015*. Valencia: Editorial UOC, pp. 41-58.
- García-Gavilanes, Ruth; Kaltenbrunner, Andreas; Sáez-Trumper, Diego; Baeza-Yates, Ricardo; Aragón, Pablo; y Laniado, David (2014): "Who are my audiences? a study of the evolution of target audiences in microblogs". In *International Conference on Social Informatics* Springer International Publishing, November, pp. 561-572. Doi: 10.1007/978-3-319-13734-6\_39
- Garrett, R. Kelly & Danziger, James N. (2011): "The internet electorate". *Communications of the ACM*, 54 (3), 117-123. Doi: 10.1145/1897852.1897881
- Gladwell, Malcolm (2006): *The tipping point: How little things can make a big difference*. Boston, Little, Brown.
- González-Bailon, Sandra; Borge-Holthoefer, Javier; y Moreno, Yamir (2013): "Broadcasters and hidden influentials in online protest diffusion". *American Behavioral Scientist*, 57 (7), 943-965. Doi: 10.2139/ssrn.2017808.
- Graham, Todd; Jackson, Dan; and Broersma, Marcel (2016): "New platform, old habits? Candidates' use of Twitter during the 2010 British and Dutch general election campaigns". *New Media & Society*, 18 (5), 765-783. Doi: 10.1177/1461444814546728
- Groshek, Jacob & Al-Rawi, Ahmed (2013): "Public sentiment and critical framing in social media content during the 2012 US presidential campaign". *Social Science Computer Review*, 31 (5), 563-576. Doi: 10.1177/0894439313490401.
- Hilbert, Martin; Vásquez, Javier; Halpern, Daniel; Valenzuela, Sebastián; and Arriagada, Eduardo (2016): "One step, Two step, network step? Complementary perspectives on communication flows in Twittered citizen protests". *Social Science Computer Review*. Doi: 10.1177/0894439316639561.
- López García, Guillermo (2016): "'New' vs. 'old' leaderships: the campaign of Spanish general elections 2015 on Twitter". *Communication & Society*, 29 (3), 149-168. Doi: 10.15581/003.29.3.149-168.
- López García, Guillermo; Cano, Lorena; y Argilés, Laura (2016): "Circulación de los mensajes y establecimiento de la agenda en Twitter: el caso de las elecciones autonómicas de 2015 en la Comunidad Valenciana". *Tripodos*, 39, 163-183.
- Lowry, Dennis T.; Xie, Lei T.; and Witte, Oliver R. (2008): "Agenda-setting and rhetorical framing by semantic proximity: A new computerized approach to the analysis of network TV news". In *Radio-TV Journalism Division of the Association for Education in Journalism and Mass Communication Annual Convention*. Chicago, IL, August. Retrieved from <https://goo.gl/m9jo5j> (2017-02-11)
- Luo, Jiao; Meier, Stephan; and Oberholzer-Gee, Felix (2012): *No news is good news: CSR strategy and newspaper coverage of negative firm events*. Boston, MA, Harvard Business School.
- Márquez, Lucía (2017): ¿Son los debates electorales la nueva Eurovisión? Análisis del seguimiento de dos eventos masivos a través de Twitter. *Digitos. Revista de Comunicación Digital*, 3 (1), 137-162.
- Meeks, Lindsey (2016): "Aligning and Trespassing: Candidates' Party-Based Issue and Trait Ownership on Twitter". *Journalism & Mass Communication Quarterly*, 93 (4), 1050-1072. Doi: 10.1177/1077699015609284
- Newman, Nic & Levi, David A. L. (2013): "Reuters Institute Digital News Report 2013: Tracking the Future of News". Retrieved from: <https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital%20News%20Report%202013.pdf>

- Newman, Nic; Levy, David A. L.; and Nielsen, Rasmus K. (2016): "Reuters Institute digital news report 2016". Retrieved from:  
<https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital-News-Report-2016.pdf>
- Pallarés, Sandra y García, Carmela (2017): "Análisis comparativo del discurso de Mariano Rajoy en Twitter durante las dos campañas electorales de 2015: las autonómicas del 24M y las generales del 20D". *Dígitos. Revista de comunicación digital*, 3 119-136. Retrieved from: <http://revistadigitos.com/index.php/digitos/article/view/82/42>
- Puebla, Belén & Gomes-Franco, Flávia (2015): "Estrategias comunicativas de la prensa en Twitter. Una comparativa entre España y Portugal". *Disertaciones. Anuario electrónico de estudios en Comunicación Social*, 8 (1), 163-185. Doi: 10.12804/disertaciones.01.2015.07
- Puentes-Rivera, Iván; Rúas-Araujo, José; & Dapena-González, Borja (2017): "Candidatos en Facebook: del texto a la imagen. Análisis de actividad y atención visual". *Dígitos. Revista de Comunicación Digital*, 3 (1), 51-94. Retrieved from:  
<https://revistadigitos.com/index.php/digitos/article/view/81>
- Quevedo Redondo, Raquel; Portalés-Oliva, Marta; y Berrocal Gonzalo, Salomé (2016): "The image use Twitter during the 2015 municipal election campaign in Spain". *Revista Latina de Comunicación Social*, 71, 85-107. Doi: 10.4185/rlds-2016-1085en.
- Sáez-Trumper, Diego (2011): "La información en Internet: Breve estado del arte para discutir el poder de los usuarios v/s los medios tradicionales de comunicación en la red". *Revista Austral Ciencias Sociales*, 20, 71-79. Doi: 10.4206/rev.austral.cienc.soc.2011.n20-05
- Sáez-Trumper, Diego; Meira, Wagner; and Almeida, Virgilio (2011): "From total hits to unique visitors model for election's forecasting. Proceedings of the *Association for Computing Machinery Web Science 2011*, pp. 1-2. New York, NY, Association for Computing Machinery. En:  
<http://www.websci11.org/fileadmin/websci/Posters/WebSci2011-Saez-Trumper.pdf>.
- Sáez-Trumper, Diego; Castillo, Carlos; and Lalmas, Mounia (2013): "Social media news communities: gatekeeping, coverage, and statement bias". In *Proceedings of the 22nd ACM international conference on Conference on information & knowledge management*, , October, pp. 1679-1684. ACM. Doi: 10.1145/2505515.2505623
- Requejo, José Luis y Herrera, Susana (2014): "Retroceso en la creación de comunidad entre los diarios generalistas españoles en Twitter (2011-2013)". *Estudios sobre el Mensaje Periodístico*, 20 (1), 229-249. Doi: 10.5209/rev\_esmp.2014.v20.n1.45229.
- Tous Roviroza, Anna; Rivero Santamarina, Diana; Meso Ayerdi, Koldobika; y Larrondo Ureta, Ainara (2015): "Ambient Journalism in Spain. How Twitter and NREs are redefining agenda setting in El País, El Mundo, La Razón, ABC and La Vanguardia". *Tripodos*, 36, 35-54. Retrieved from:  
[http://www.tripodos.com/index.php/Facultat\\_Comunicacio\\_Blanquerna/article/view/241/197](http://www.tripodos.com/index.php/Facultat_Comunicacio_Blanquerna/article/view/241/197)
- Tumasjan, Andranik; Sprenger, Timm O.; Sandner, Philipp G.; and Welpe, Isabell M. (2010): "Predicting elections with twitter: What 140 characters reveal about political sentiment". *ICWSM*, 10(1), 178-185. Retrieved from:  
<https://www.aaii.org/ocs/index.php/ICWSM/ICWSM10/paper/view/1441>
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