The Political Awareness in the candidates using Twitter. A clusterization exercise for the municipal elections in Chile (2016)

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Abstract
Introduction. In this paper, we study the relationship between the use of Twitter and political awareness of the candidates to mayor in municipal elections on October 2016. **Methodology**. Through a clustering method, we group candidates according to the individual characteristics (age, gender and study grade) and political characteristics (incumbency, political sponsorship and orientation) and their use of twitter by municipalities (tweets, retweets and favourites). **Results.** We put in evidence that our way to agglutinate the data is given by their political awareness / twitter use. In this sense, we see that the political profile is what allows us to group the uses of Twitter of the candidates in a more enlightening way. **Conclusions.** At a local territorial level, where the spectrum of candidates is broader, the use of Twitter reinforces the difference between the candidates with less political awareness. This contradicts the idea that Twitter could be an alternative for those candidates with less political awareness.

Keywords
Twitter; Political awareness; Clusterization; Candidate; Municipal elections; Chile.

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1. Introduction

The microblogging platform Twitter has become one of the most used communication tools to carry out political campaigns (Jungherr, 2016). After the campaign for the re-election of Barack Obama (2008), studies about the use of Twitter during elections have multiplied. Studies about general elections are known, mostly in countries from Northern Europe such as Holland (Vergeer and Hermans, 2013) or Denmark (Larsson and Moe, 2013), where the use of Internet and Twitter is quite intense. Also, the behaviour in Twitter of candidates for the elections of Kuwait have been studied (Miller and Ko, 2015), as well as the particularities of the phenomenon in Switzerland's case (Rauchfleisch and Metag, 2015).

The present contribution is focused in the description of the use of twitter by the political staff in a particular context: Chilean municipal elections of 2016 in the Metropolitan Region. In this context, we are interested in describing the relationship between individual and political values associated to the candidate, with the intensity of the use of Twitter. Using the clusterization technique, which consists in grouping individuals based on common characteristics, we try to establish what features best group the behaviour of candidates on Twitter. This comparative exercise allows us to make graphics about how the distributions of candidates change in the different clusters, which allow us to determine whether the use of Twitter exacerbates or nuances the differences between candidates.

1.1. The use of Twitter in Electoral Campaigns

The use of Twitter in electoral campaigns has been object of study in, at least, three modalities, as Vergeer (2015) suggests: a first one is characterized by the interest in the contents of messages (1), the second one in the analyses in terms of networks woven around Twitter (2) and the third one is essentially focused in the relationship of Twitter and electoral results (3). Most of research is focused in the first modality of analysis, exploiting text, images (Quevedo, Portales, Berrocal, 2016) and the type of communication that Twitter provides (Amaral, Zamora, Grandío and Noguera, 2016). In second place, the studies regarding homophilia inside the social networks are outstanding (McPherson, Smith-Lovin and Cook, 2001) (1). In third place, Twitter has been used to try to predict results of elections, with a rather contrasted success (Dhiraj, 2015). As observed in this synthesis, each one of these methodological alternatives entail a certain capacity of the Twitter platform to steer the political labour, moving from the simple description of the phenomenon in the two first cases to prediction, in the third case.

In the case of Chile, research about the use of Twitter was oriented in a privileged manner to study the link between networks and social movements (Valenzuela, Arriagada and Scherman, 2012 and 2014; Millaleo and Velasco, 2013). In this framework, the studies interested on the use of Twitter by political authorities are still few (Fábrega and Paredes, 2013), as well as by the President (Bustamante, 2015) or by his campaign teams (Bustamente and Henríquez, 2012). Finally, studies that were not directly focused on electoral campaigns, confirm a certain political-institutional decentralization in the Chilean usage of the platform (Graells-Garrido & Poblete, 2013). Therefore, it seems relevant to study the political uses of Twitter in a Chilean municipal campaign.

1.2. The Political awareness and Twitter

In most of literature, the relative innovative character of the use of Twitter in electoral campaigns has been highlighted. However, numerous studies describe a relatively traditional use of the new media (Harder, Paulussen and Van Aelst, 2016; Graham, Jackson and Broersma, 2016). In the case of Latin America, the use of Twitter by a series of political leaders during the period of economic crisis has been studied, finding a considerable evidence of rather more traditional uses of the micro-blogging sites (Díaz, Segado-Boj, Lloves-Sobrado, 2015). On the other hand, the strategic use of Twitter in general elections in Germany (Jürgens and Jungherr, 2015) and in Spain (Segado-Boj, Díaz-Campo and Sobrado, 2016) has been studied, accounting for how candidates do an intended use of Twitter in their campaigns.

Literature gathers a series of features associated to candidacies (Dolezal, 2015), that seem to favour the use of Twitter in campaigns of a certain kind of candidates. In fact, the use and non-use of social networks seem to be associated to certain features characteristic of the candidate (Larsson and Kalsnes, 2014). Regarding gender, literature acknowledges relevant biases, either in the way women are represented in this platform (Baeza and Lamadrid, 2016), or in the way women use it as a political tool (Evans, 2016). The position of the candidate in the election also seems to be a relevant factor to consider. Besides, it seems that the use of Twitter changes depending on the style of the campaign, either focused on the individual or the party (Gunn and Skogerbo, 2013; Zamora and Zuruzutu, 2014; Karlsen and Enjolras, 2016). In summary, literature has been interested in two large group of variables: individual, associated to the candidate, and political, associated to candidacies.

However, a question remains open: what is the supposed advantage of the micro-blogging site for peripheral candidacies? On one hand, the impact of Twitter in the possibilities smaller political parties have to disseminate their programme on citizens has been assessed, rather confirming the contrary in the Iceland case (Guðmundsson, 2016). On the other hand, the comparison of the uses of Twitter among candidates to Norwegian elections show a slight predominance of the challenging underdog (Larsson and Hallvard, 2014). In summary, there are favourable and negative responses regarding the question, which makes interesting to examine what happened during municipal elections of October 2016.

One way of approaching this question is from the treatment of what specialized literature calls "political capital". In this perspective, the concept has two dimensions: reputability and accumulation (Bourdieu, 1981). In this paper, we focus on studying mainly the accumulation dimension (Joignant, 2012), that is, durability and capitalization of awareness during a "political career" (Alcántara-Sáez, 2017).

2. The Municipal Chilean Elections and the use of Twitter

Different from what happens in other latitudes (Mehmed, 2015), the use of Twitter in local spaces has not been object of interest, despise the favourable characteristics this type of election offers in Chile for its observing. In fact, municipal elections correspond to a particular event, characteristic in the Chilean political field. Since the return of democracy, there have been at least six municipal elections, being the first one in 1992 and the last one on October 2016. The current regulations that govern these elections stablish that the voters of the 345 municipalities there are in Chile must elect a mayor and a specific number of councilmen proportional to the population in the municipalities, which may vary

from 6 to 10 members. Until 2004, this election was carried out jointly, causing certain vices and inconsistencies in the voting system (Morales and Navia, 2012: 25). Since the municipal election of 2008, citizens vote for candidates to mayor and councilmen separately, contributing to the transparency and clarity in the voting system.

Within the relevant characteristics for our study of Twitter uses by candidates to mayor of the Metropolitan Region, municipal elections show a highly diverse political offer that makes it difficult to compare them with other kind of elections (Morales and Navia, 2012: 27). They call a broad range of political actors, coming from the complete spectrum of political parties and organizations, as well as a relevant proportion of independent candidates. If parliament and municipal elections are compared, the latter bring together a greater diversity of political forces, mainly at councilmen level (Morales and Navia, 2012: 28). Despise women are still being least represented than men by far (PNUD, 2016), candidates differ in their age, political experience and educational level. At the same time, their candidacies are related with covenants and political parties in different ways. Lastly, municipalities they postulate to are also different, including places that gather populations of about half million inhabitants up to one-horse towns that do not have more than 200 inhabitants. Due to all these reasons, examining electoral campaigns in this space allows to envisage how politics is done from the local space, and to understand what is the use of Twitter in this space.

We can then consider that, in the Chilean context, both the trajectory of candidates as well as the level of incumbency have a considerable impact over chances of candidates to be elected (Bunker and Navia, 2012: 49), having consequences on the form candidates carry out their campaigns and partly explaining the impact Twitter has on electoral campaigns. On the other hand, certain studies have highlighted the relevance of the phenomenon of personalization of electoral campaigns, mostly during presidential elections (Porath, Suzuki, Ramdohr and Portales, 2015). Both indicators gain even more relevance in the current context, where both political parties as well as candidates start adapting to the new regulations promulgated in matters of electoral expense (2).

3. Research questions and hypotheses

Considering the specificities of the municipal elections in Chile and the broad political spectrum of candidates, we want to study the relationship between political awareness and the use of Twitter in this context. Therefore, we formulate the following research questions:

P1. What are the characteristics of the candidates who used Twitter during the campaign for Chilean municipal elections of 2016?

P2. What variables could explain the variations in the use of Twitter by each candidate?

P3. What are the contributions of the clusterization method for understanding the relationship between political awareness and the use of Twitter in municipal campaigns?

To answer these questions, we considered the following hypothesis:

H1. The difference in the use of Twitter is explained by the level of political awareness associated both to candidates as well as to candidacies.

This same hypothesis is developed in two parts:

H1.1. Heavy use of Twitter is favourably related with a high sponsorship, strong level of incumbency and a political orientation of center-right.

H1.2. Heavy use to Twitter is not related to individual variables, as well as gender, age and education level.

4. Methodology and Data Collection

Therefore, we have elaborated a list with the totality of candidates for mayor that postulated in the 52 municipalities that constitute the Metropolitan Region (R.M. in Spanish). Among them urban and rural municipalities are included, as well as those of small and large size, of different socioeconomic levels and with populations that can reach half a million inhabitants. As a whole, R.M. gathers 7.314.136 inhabitants (3), which corresponds to more than 50 % of Chile's population.

The list of candidates was built based on the three bulletins published by the Electoral Service (4). Immediately, we started browsing Twitter and Facebook accounts associated to the candidacies. It entailed two stages. In a first stage, a search of Twitter accounts associated to the names and surnames of each candidate was done, including the name of the municipality and the name of covenants or political parties supporting them. In a second stage, candidates of whom Twitter accounts weren't found, were contacted through Facebook instead. From a total of 215 candidates, 137 had an active Twitter account (5). Additionally, it is necessary to clarify that in these data base only municipalities where there are at least two candidates with Twitter accounts were considered, only this made the comparison of the use of Twitter by candidates possible at a municipality level (6). Therefore, our set of data is constituted by 104 accounts.

To operationalize the concept of political awareness, we have considered the gender, education level and age of candidates in first place. Secondly, the attributes associated to the candidacy were classified in detail: the type of sponsorship (independent; by covenant; by covenant and by political party), political orientation of the candidate (right, govern and left) and the level of incumbency (measured by periods from 0 to 5). Finally, information about whether these candidates were elected or not is included.

To measure the intensity of Twitter use, a massive download of all activity of accounts was done, from August 23, 2016 to October 12, 2016, using the library "twitteR" of the statistical program R. We have distinguished three types of activity: published tweets, re-tweets and the number of favourites generated by every publication. The total of downloaded messages was 65.616. This activity is expressed in four categories, that are calculated in proportion to the total number of messages downloaded in every municipality. Additionally, to contextualize the use of Twitter in every place, the "poverty index" of every municipality is considered a contextual variable.

The set of indicators associated to political awareness, together with the same index of poverty of municipalities, is what we will call "Dataset_1". Additionally, the sum of data from "Dataset_1", more than it is obtained when aggregating the percentage of tweets, likes and retweets, is what we call "Dataset_2".

Using the "FactoMineR" library, a multiple correspondence analysis was done in Dataset_1 and Dataset_2. To do this, we decided to consider "Poverty index" variable a supplementary quantitative variable and the rest as categorical. The description of the categorical variables is as follows: ages were divided into ranges of 18-29, 30-35, 36-41, 42-50, 51-60 and 60-100, having 6 ages categories. For

tweets, favourites and likes, we have calculated the percentages of uses: 0%-25%, 26%-50%, 51%-75% and 76%-100%. Whereas it must be understood that 100% refers to the fact that a candidate did all tweets and / or obtained the greatest number of retweets and/or likes in that municipality. In other words, two candidates can be grouped in the same category of Twitter, but have a relevant difference in the number of tweets published. This generates 4 categories by each one of the three variables. The rest of variables are considered categorical. Next, a hierarchy clusterization process was carried out using the Ward method (with Euclidean metrics). This clusterization consists in agglutinating groups of individuals in a progressive manner, in such a way that they are as homogeneous as possible. More accurately, groups of individuals are associated in a way that the variance of the group is as minimum as possible. Consequently, from the start the two more similar individuals will be grouped and the process will continue until all individuals belong to a single cluster. Please note that the aforesaid means that the number of groups in which individuals will be grouped can be pre-defined. In order to do this, the "FactoMineR" library was used, stablishing a number of 5 clusters, which had the virtue of integrating in a good manner the greatest number of data.

In fact, on figure 1, the contribution of inertia is more significant when we consider the distribution in four clusters. However, the interpretation of data is clearer when we incorporate one more cluster. Additionally, in the graphic we can observe that clusters 4 and 5 are similar in terms of inertia. Therefore, we have used clusterization in 5 groups in total. To make Dataset_1 comparable with Dataset_2, we have selected clusterization in 5 groups for both cases.

Contribution of inertia without Twitter   **Contribution of inertia with Twitter**

In fact, on figure 1, the contribution of inertia is more significant when we consider the distribution in four clusters.
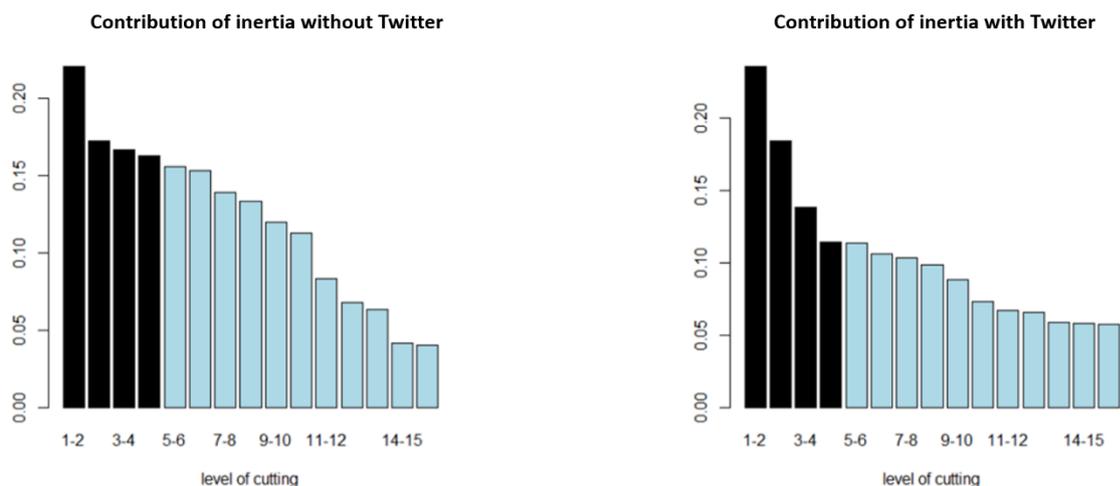
5. Results

On graphics 1 and 2, we expose the results of clusterization. The first one corresponds to the total information of Dataset_1, about political awareness of candidates, and the second to Dataset_2 integrating this information with its use of Twitter during the electoral campaign.

Cluster 1 (in black) corresponds to an unclassifiable candidate. Corresponds to an applicant for mayor in the municipality of Lo Espejo, independent, without sponsorship, but incumbent a fourth time (44). Cluster 2 (in red) is the most numerous. It has 76 candidates, that is, 73.08% of the total. It is structured by heterogenic candidates which main characteristic is not having any incumbent. 20 of the 25 incumbent candidates belong to that cluster (80%), like 84.62% of candidates without sponsorship.

They are the youngest candidates, since 31 out of 33 candidates who are under 41 years old belong to this cluster (92.86%). A major percentage of them are not elected (86.84%). It is worth mentioning that in this cluster, additionally, the totality of candidates from the left outside NM (PP3), who usually get low number of votes in these elections.

Cluster 3 (green in the graphic) is a group of highly sponsored candidates. 7 out of 8 candidates are sponsored by a political party and a covenant. They are mainly incumbent, seven of them competing for the fourth period and one for the sixth. 75% of candidates belong to *Nueva Mayoría*. All of them are men, older than 54 years old, competing for a position in municipalities with a low poverty index (50% of candidates in municipalities with less than 10% of poverty). 75% of them won the election.

The ten candidates of cluster 4 (in blue) are mainly from the right (70%) and with a strong sponsorship. 80% were sponsored by a covenant and a political party. Half of them only have a basic education and/ or technical. On the other hand, all are older than 44 years old, and only 20% are older than 60.

Graphic 1. Clusterization of Dataset_1
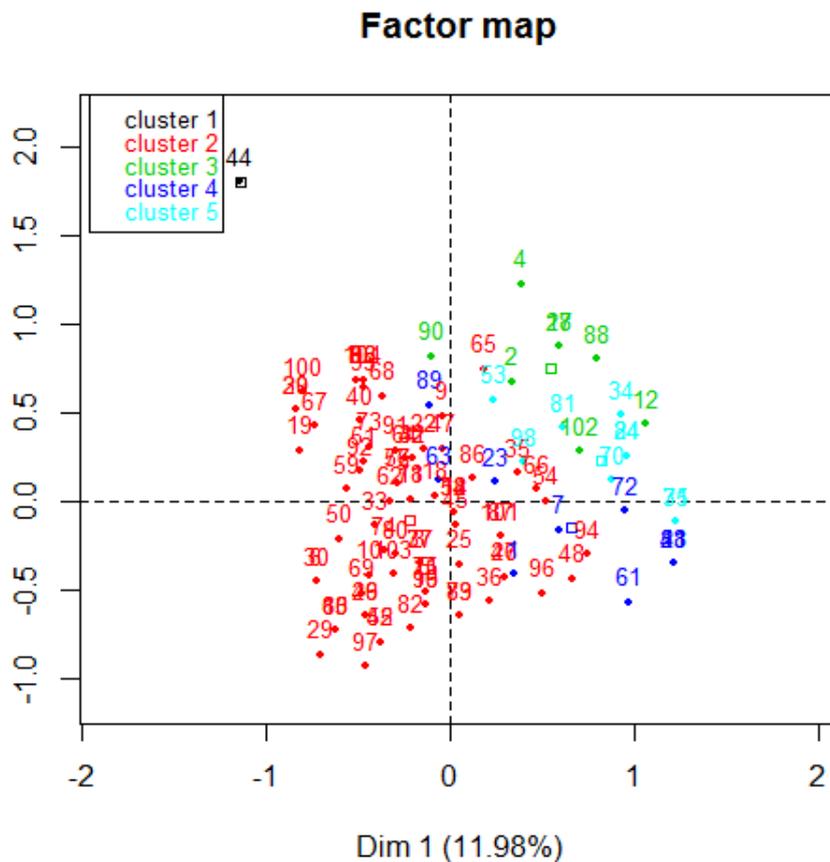
Cluster 5 (cyan) has nine members. It mainly groups candidates supported by government parties (77.78%), who are all candidates for the second period. 7 of these 9 candidates were re-elected in 2016.

Graphic 1 clearly shows a difference among candidates with a lower political awareness, which concentrate in cluster 1 and 2, and those with a high political awareness, mainly present in clusters 3, 4 and 5. The latter are highly sponsored, they mainly present with the support of *Nueva Mayoría* or

right coalition, and in 92.59% of cases they are incumbent. There should be noticed that 66.67% of those candidates won the elections.

In the following Graphic 2 there is the clusterization exercise for Dataset_2, which is essentially Dataset 1 considering, additionally, the three categories of the use of Twitter variable.

On one hand, cluster 1 (in black) gathers 54% of candidates who do not have any kind of sponsorship. In fact, 56% are independent candidates. 68 % of women candidates comprise this cluster. And besides, it concentrates the totality of candidacies of left political orientation. A broad majority was not elected (92.73%). On the other hand, a great majority of candidates in this cluster publish a minimal proportion of tweets compared to the total of his municipality. In fact, 70.91% of candidates publish less than 25 % of tweets of his municipality; a 94.55% concentrate less than 25 % of the use of the retweet tool and; for 94.55% of them, their publications concentrate less than 25 % of mentions as favourite published in the municipality during the period. However, there are two isolated cases where an abnormally high activity on Twitter is observed in comparison with the average activity observed among the members of cluster 1.

Graphic 2. Clusterization of Dataset_2

In cluster 2 (in red), indicators associated to political capital are not relevant to explain the result of clusterization. The political orientation of candidates is quite heterogenic, despite the strong sponsorship some candidacies have. Most are challenging (more than 63%). The main characteristic of the cluster is that it groups candidacies of municipalities with a lower level of poverty. 84.21% of candidates competed in municipalities with less than 10% of poverty. Candidates of this cluster

concentrate less than 50 % of tweets, retweets and favourites published in the municipality during the campaign period.

In cluster 3 (in green), with only three candidates, we find applicants that only have secondary school. None of them won the election. Their behaviour in Twitter was heterogeneous.

In cluster 4 (in blue), a majoritarian presence of candidates with a strong sponsorship is observed, mainly of the Government political orientation. In fact, 88.89% of candidates identified with the *Nueva Mayoría*. More than half (55.56%) were elected, despite that most of them were not incumbent (55.5%). 88.89% declares having professional studies and 77.78% competed in municipalities with a poverty index lower than 10%. However, the essential characteristic of the cluster is to group candidates who have a middle-to-high use of Twitter. 66.67% of them publish less than 50% of tweets; 77.78% concentrates between 50 and 75% of retweets; and the totality received between 50 and 75% of favourites granted in their respective municipalities.

Cluster 5 (cyan) comprised by 18 members, mainly groups candidates of right. 44.44 % belong to RN and UDI. They are candidates who, 77.78%, are sponsored by covenants and political parties. It is characterized by concentrating about 75% of tweets, retweets and favourites published during the campaign.

In synthesis, graph 2 clearly shows a new distribution of candidates. Clusters 1, 2 and 3 take distance from clusters 4 and 5, following two structuring axes. On one hand, in the first groups the candidacies with a lower political awareness are gathered, taking in mind the sponsorship, political orientation, incumbency and the result of the election. The political awareness is still determinant. Something similar occurs with the level of study of these candidates. In this cluster, they gather almost the totality of whom do not have a university degree. If we consider Twitter then, the distribution of candidates transforms. Candidates who belong to the three first clusters record a very low use of Twitter, in proportion with the global activity of the municipality. All the contrary than candidates of the fourth and fifth cluster, who show an intense use of the tool, in either of its three forms, that is, twitter, re-twitter and favourites. The interpretation of this new distribution can be made from crossed review of political awareness that candidates accumulate under each form of clusterization.

6. Analysis of data clusterization

With the introduction of the Twitter variable in the "Dataset_2", the morphology of the two graphics changes drastically. While graphic 1 appears as a relatively compact set of dots, graphic 2 suggests an accented dispersion and polarization. How can these changes be explained?

A first form consists in analysing transferals between different clusters, considering clusterization of "Dataset_1" and "Dataset 2". Most candidates migrate from cluster 2, the most heterogeneous by far in Dataset 1, towards other clusters. Specifically, 63 of the 76 initial candidates change clusters. This leads us to think that the Twitter variable allows deeply re-organizing the first distribution into 5 clusters of "Dataset_1". In the number of candidacies grouped, a different distribution is observed. Cluster 5 increases exponentially, as well as cluster 1. In the case of cluster 3, it is the one experiencing the greatest reduction, grouping only 3 candidates.

This exercise allows us to develop three possible interpretations in relation to the use of Twitter and political awareness. A first interpretation can be found in the strong association there is between political awareness and the use of Twitter. If we compare results of both clusterizations, certain

continuities are observed. These concentrate mainly among candidates of cluster 2. From the 17 candidates comprising it, 13 do not change group. They correspond to non-incumbent candidates, sponsored by covenants and political parties, of different political orientations, older and of high-economic level municipalities. Most of them, 11 from a total of 13, were not elected. That is, high uses of Twitter favourably relate with indicators of political awareness. On the contrary, the presence of candidacies with a weak sponsorship and an absence of incumbency seem to refer a less intense use of Twitter.

This general trend does not necessarily entail that certain variations aren't observed among the groups that concentrate candidacies with more political awareness. In fact, candidates who migrate from clusters clusters 4 and 5 of the Dataset_1 are the ones with a less intense use of Twitter. These candidates move towards clusters 1, 2 and 3. From the transferrals of cluster 3, a similar trend is observed: the strong level of incumbency that characterize these candidates, for three periods or more in most of cases, show how the political attributes of the candidacy are associated with an intense use of Twitter. Three of the candidates of cluster 3 are now part of cluster 5 and 1 is now part of cluster 4.

A second explanation is related to the individual characteristics of candidates. Neither the gender nor age of candidates seem to be explanatory variables. In the first case, the scarce number of women in the sample hinders a deeper analysis of their performance in Twitter. On the other hand, age of candidates doesn't seem to play a great role in the use of Twitter. In fact, it could be thought, at first glance, that older candidates are more refractory to the use of new technologies. However, our data do not show this trend. Therefore, it seems these indicators do not influence in the way the method groups candidates.

A third explanation refers to the socioeconomic component associated to the use of Twitter instead, which can be controlled through a contextual variable of the poverty index. The global trend indicates that clusters gathering candidacies with higher political capitals, are the ones showing a more intense use of Twitter. But the question is whether these municipalities are the ones having lower poverty indexes. It seems this issue is partially true. Cluster 2, for example, shows a middle to low use of Twitter, with candidacies gathering lower political capitals, in municipalities of middle and high socioeconomic levels of the Metropolitan Region. On the contrary, it can be seen in cluster 5 that there is a high level of use of Twitter, but in municipalities with a middle or high poverty index. This data obliges us to nuance the relationship between socioeconomic level of the municipality and the resource of Twitter. Our data do not show significant variations among municipalities that show high poverty indexes (+ of 20 %) and those having a low indicator (between 5 and 10%). The so-called digital gap is not clearly manifested in this level of analysis. In general, data show a more and more transversal use of Twitter, despite the level of poverty of the municipality where the election is performed.

7. Conclusion

While specialized literature in the political uses of Twitter is focused in messages and analysis of networks during parliamentary and presidential campaigns, there are still few studies interested in the characteristics of candidates during municipal elections. Taking this pathway allows questioning a broader and more plural political offer, and due to the same reason, it offers the possibility to capture the diversity of uses of Twitter in the context of campaigns.

With this purpose, the clusterization exercise reveals as particularly adequate to explore the relationship there is between the characteristics of candidates and the use of Twitter. The more political awareness of a candidate to municipal elections, the more trend to use

Twitter. It is also important to make know that in the clusterization of Dataset_2, variables that best explain changes of clusters are the ones associated to the political awareness. That is, variables such as age, gender or the level of studies, are much less relevant.

This evidence seems rather counter-intuitive, because it contradicts the idea that Twitter can be an opportunity for small political parties and candidates with a restricted political awareness of making an efficient electoral campaign (Larsson and Hallvard, 2014). We agree with Guðmundsson (2016) instead: at a local level, where the spectrum of candidates is broader, the use of Twitter reinforces the difference between candidates of more or less political awareness.

However, the transversal use of Twitter, in municipalities with different levels of poverty, shows that its use has become more transversal in social terms. This data leads us to think that we are facing an eventual ''Twitterization'' of the Chilean political life.

8. Notes

(1) These authors define homophilia as the principle of similarity that structure networks in a homogeneous manner, regarding sociodemographic, behavioural and interpersonal characteristics (McPherson, Smith-Lovin and Cook, 2001).

(2) Law 20900 for the strengthening and transparency of democracy. Decreed on April 11, 2016. Available in the site: https://www.leychile.cl/Navegar?idNorma=1089342 (Browsed on 01-01-2017).

(3) National Statistics Institute (INE) Report dated September 4, 2014 about population of the country and regions. Available in the link: http://www.ine.cl/canales/sala_prensa/noticias/noticia.php?opc=news&id=615&lang=esp. (Browsed on March 15, 2017).

(4) Electoral Service. Partial bulletin 1 dated 24-08-2016. Available in the link: https://www.servel.cl/wp-content/uploads/2016/08/BOLETIN_PARCIAL_N_1.pdf.; Partial bulletin 2 dated 05-09-2016; Available in the link: https://www.servel.cl/wp-content/uploads/2016/09/20160906_BOLETI_N_PARCIAL_2.pdf. Partial bulletin 3 dated 12-09-2016. Available in the link: https://www.servel.cl/wp-content/uploads/2016/09/20160916_BOLETIN_PARCIAL_N_3-1.pdf. (Browsed on 20-03-2017).

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(5) The data of the municipalities of San José de Maipo, San Bernardo, La Reina, Las Condes and Providencia couldn't be completely downloaded.

(6) This criterion was not complied with in the case of the following municipalities: Lampa, Til Til, Calera de Tango, Alhué, María Pinto, Melipilla, Cerrillos, Conchalí, San Ramón, El Monte and Isla de Maipo.

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