Journal of Universal Computer Science, vol. 22, no. 3 (2016), 375-393
submitted: 16/10/15, accepted: 23/1/16, appeared: 1/3/16 © J.UCS

Social Media Battles: their Impact during the 2014 Greek Municipal Elections

Georgios Lappas
(Technological Education Institute of Western Macedonia, Kastoria, Greece
lappas@kastoria.teikoz.gr)

Amalia Triantafillidou
(Technological Education Institute of Western Macedonia, Kastoria, Greece
a.triantafylidou@kastoria.teikoz.gr)

Prodromos Yannas
(Piraeus University of Applied Sciences, Aigaleoa, Greece
prodyannas@teipir.gr)

Anastasia Kavada
(University of Westminster, London, UK
a.kavada@westminster.ac.uk)

Alexandros Kleftodimos
(Technological Education Institute of Western Macedonia, Kastoria, Greece
kleftodimos@kastoria.teikoz.gr)

Olga Vasileiadou
(Technological Education Institute of Western Macedonia, Kastoria, Greece
o.vasileiadou@kastoria.teikoz.gr)

Abstract: The purpose of this study is to examine the use of social media such as Facebook, Twitter, and YouTube by candidates running for the 2014 Greek Municipal Elections by addressing the following questions: (1) which factors affect social media adoption by municipal candidates?, and (2) whether social media usage along with the popularity of candidates' social media pages influence candidates' vote share. Results indicate that social media are not very popular campaigning tools among municipal candidates in Greece. This implies that Greek candidates still rely on traditional ways to lure their voters. Furthermore, findings reveal that candidates running in large municipalities are more likely to utilize social media (i.e., Facebook, Twitter, and YouTube) as means of political marketing. In addition, challengers seem to prefer Facebook and Twitter as campaign tools while males tend to focus on YouTube to attract voters. Despite the low adoption rate, results suggest that candidates who made use of social media won more votes compared to candidates who were not social media users. Moreover, it was found that a candidate's Facebook page and YouTube channel popularity are good indicators of the candidate's vote share.

Keywords: Social Media, Facebook, Twitter, YouTube, Political Marketing Strategy, Vote Share, Greek Municipal Elections, Quantitative Analysis, Social Media Popularity
Categories: H.3.5, J.1, J.4, K.4.1, K.4.2, K.4.3, L.6.1

1 Introduction

Throughout the years the Internet has become an important vehicle for political campaign activities. In 1996 candidates incorporated websites in their election campaigns in order to provide top-down communication to voters; in 1998 they used emails for contacting with voters and in 2003 blogs became an important part of their online campaign activities [Cornfield and Rainie, 06]. Social media empowered by technologies such as Web 2.0 [Lytras et al., 15] entered the political marketing arena, with Facebook paving the way, during the 2008 presidential elections in the US [Vesnic-Alujevic, 12]. Until now, political marketers have acknowledged the value of social media tools as a cost-effective method of political promotion [Gueorguieva, 08; Williamson, 09]. According to [Pena-Lopez, 11], Social media give candidates the opportunity to produce and promote customized messages for their targeted voters.
Candidates can cross-promote themselves by using different social media platforms to attract different types of audiences. However, less is known about whether adoption of different social media is affected by similar drivers. According to [Gulati and Williams, 11] candidates might be influenced by different factors to use different social media. For example, during the 2010 U.S. Congressional elections incumbents were most likely to adopt mature platforms such as Facebook and YouTube while challengers were more inclined to adopt Twitter which had just entered the social media arena. Thus, more research is needed to test whether adoption of various social media platforms by candidates is affected by similar drivers.

Researchers have cast doubt on whether the entrance of social media to campaigns of politicians confirms the normalization or the equalization hypothesis. On one hand, normalization hypothesis suggests that the new media do not alter the political status quo and reinforce traditional campaigning forms where major parties or incumbent candidates are more likely to adopt and embrace social media [Vergeer et al., 13]. On the other hand, equalization deals with the democratizing effect of social media. Social media can equalize the competition between the different political actors [Strandberg, 13] with fringe parties and challengers be able to "gain the public attention they cannot otherwise obtain through the traditional mass media bottleneck" [Klinger, 13, p. 720] due to their limited financial resources. Empirical studies have not provided consistent results about which hypothesis prevails. Nevertheless, the current research has not adequately addressed a number of important issues. First, most of studies explore the normalization/equalization hypothesis for elections taking place at the national level (i.e., Parliamentary, Presidential, etc). And second, these studies have been conducted in the context of large countries (i.e., United States, United Kingdom, Australia, France, Sweden, Norway, Denmark, etc) [Williams and Gulati, 13; Gulati and Williams, 13; Gibson and McAllister, 15; Koc-Michalska et al., 14; Larsson and Kalsnes, 14; Hansen and Kosiara-Pedersen, 14) leaving out smaller countries like Greece. Hence, researchers could gain fruitful insights on whether candidates originating from a *small country* and contesting for *municipal seats* share common characteristics in the way they campaign on the social media and are affected by the same drivers as candidates from large countries who contest at nationwide elections.

Thus, this study examines candidates' use of social media (i.e., Facebook, Twitter, and YouTube) in the Greek Municipal elections of 2014. Specifically, the

purpose of the present study is twofold. First, to decipher whether characteristics of candidates such as gender, incumbency status, and municipality size have an effect on candidate's social media use (i.e., Facebook, Twitter, and YouTube) and second to identify whether social media adoption by candidates along with the popularity of candidates' social media platforms are important predictors of a candidate's vote share. Hence, another contribution of this study is that it explores simultaneously the supply (candidates' usage) as well as the demand side (voters' usage) of the social media used for campaigning reasons. In addition, although the impact of social media popularity on candidates' vote share has been examined by previous studies for social media like Facebook and Twitter, the way a candidate's popularity on YouTube can predict his/her vote share has not receive the attention of researchers. Consequently, the present research sheds light on the importance of YouTube for winning votes.

2 Literature Review

Researchers point out that the use of Internet has brought changes in the way politicians promote themselves and voters participate in politics. [Norris, 00] has postulated three political campaign models using as a yardstick the most prevalent medium used in the campaign. The first model is known as the pre-modern campaign model in which parties/candidates use mainly the press and interpersonal communication to persuade voters. The next model is referred to as the modern campaign model where parties/candidates promote themselves via television news and commercials. The usage of new technologies by parties and candidates has given rise to the third post-modern model. [Vergeer et al., 13] add a fourth model to highlight the increasing use of social media as a medium for political campaigning. The fourth model is referred as the personal campaign model considering the fact that social media campaigns allow for personalized promotion and candidate-centric races. [Tops et al., 00] introduces the term cyber-democratic model of democracy to draw attention to the significant role of internet and electronic networks in shaping politics. Social networking sites such as Facebook and Twitter let candidates differentiate themselves on a personal basis, increasing thus their awareness to their online supporters [Enli and Skogerbø, 13]. What is more, social media enable candidates to provide "not just top-down communication, but also network-based horizontal communication" [Karlsen, 11, p. 6].

Facebook campaigning has attracted the interest of researchers eager to map the uses of social media by politicians as well as to delineate their impact on election outcomes. In a number of recent studies Facebook has been found to play a significant role in political campaigns across the globe. For example, almost 40% of candidates had a Facebook presence in the 2009 Norwegian parliamentary elections [Karlsen, 11] while 29 out of the 31 investigated candidates in the 2011 local elections in Norway used Facebook as a promotional vehicle [Enli and Skogerbø, 13]. In the context of the 2007 Australian Parliamentary elections, Chen [08] indicated that Facebook was the most prominent social media campaign tool. [Gulati and Williams, 13] investigating the 2012 US congressional elections found that 97% of the candidates running for the Senate seats and 90% of the candidates for the House of Representatives had a Facebook presence. The popularity of Facebook as an election campaign tool could be attributed to its unique capabilities regarding (a) relationships

building, and (b) users interaction. Facebook can be seen by political marketers as a relationship management tool where candidates can connect with targeted users and users can support their favorite candidate by pressing the Like button. Moreover, Facebook offers candidates opportunities to actively interact with their supporters. Specifically, politicians can post political content through text, photos, videos and links on their public walls in order to inform and engage in dialogue with their voters. Facebook users can respond to the content of candidates' walls, replying to and forwarding their posts.

YouTube on the other hand is used by political candidates as a tool for publicizing mainly political content from traditional media (i.e., televised political content) [Gulati and Williams, 10]. According to [Cortese and Proffitt, 12] YouTube allows candidates to disseminate videos about their speeches, meetings, and events that their voters wouldn't have been able to see because some or all of them were not aired in traditional media. Gueorguieva [08] further notes that YouTube helps candidates increase the awareness of their advertisements since it can be seen as a cost-effective alternative advertising medium.

Twitter also differs from Facebook and YouTube in regards to its use as a campaign tool. For example, while Facebook is used for the relationships a candidate builds with its supporters, Twitter is used for the content candidates post [Conway et al., 13]. Candidates tend to use Twitter mainly as a self-promotion tool [Golbeck et al., 10] where they can disseminate information about their activities, opinions and news as well as to link Twitter users to the other online platforms they use (i.e., website, blogs) [Conway et al., 13]. Moreover, it should be noted that through Twitter candidates try to attract voters as well as journalists who use Twitter as a form of a news outlet [Conway et al., 13].

3 Conceptual Framework

3.1 Factors affecting Social Media Adoption

Adoption of social media by candidates is affected by several factors related to the personal characteristics of the candidate as well as other electoral system-related factors. For example, [Strandberg, 13] found that gender was a significant predictor of Facebook adoption by candidates contesting in the 2011 Finnish Parliamentary elections. Specifically, males were more likely to be Facebook adopters. On the contrary, [Evans et al., 14] revealed that women adopted to a greater extent Twitter compared to men who were running for the 2012 House of Representatives elections in the U.S.A. Hence, the following hypotheses were developed:

H1: Gender will significantly influence candidatates' (a) Facebook, (b) Twitter, (c) YouTube adoption.

[Williams and Gulati, 13] investigating candidates running for the House of Representatives in 2006 found that a candidate's incumbency status affects the use of Facebook. Specifically, they report that challengers who were not holders of any political position were more likely to implement Facebook campaigns. [Gueorguieva, 08] also notes that during the 2006 U.S. election cycle YouTube was mostly exploited by candidates characterized as newcomers. Similar results were also revealed by [Larsson and Kalsnes, 14] regarding the adoption of social media by Swedish and

Norwegian politicians. Findings indicate that challengers tend to be adopters of Twitter compared to incumbents. Based on the above the following hypotheses were formulated:

H2: Incumbency status will significantly influence candidates'(a) Facebook (b) Twitter, (c) YouTube adoption.

The effect of the size of the candidate's electoral district on Facebook adoption has been mapped by prior research. For example, [Strandberg, 13] found a positive effect of the urbanization level on the Facebook adoption by Finnish candidates in the 2011 pre-election period. Significant differences were found in the level of Facebook usage between Greek candidates running in different peripheries in the 2010 Greek local elections. Specifically, candidates with a Facebook profile came from large peripheries and highly urbanized areas (i.e., Attiki, Central Macedonia) [Yannas et al., 11; Lappas et al., 12]. Toward this end it is suggested that candidates running in large electoral districts will be active social media users compared to candidates belonging to small constituencies. Thus, the following hypotheses were developed:

H3: Candidates contesting in electoral districts with high population densities will differ significantly in the level of (a) Facebook, (b) Twitter, and (c) YouTube usage compared to those in small electoral districts.

3.2 Factors Affecting Facebook Effectiveness

A politician's involvement with social media can have a positive impact on his vote share [Effing et al., 11]. Recently, a number of studies support the fact that Facebook can be regarded as an important campaign activity capable of contributing to election success. The significant role of Facebook on the effectiveness of political marketing was best described by the term ″Facebook election″ used by [Johnson and Perlmutter, 10] to refer to the 2008 presidential elections in the US when the candidate Barak Obama incorporated Facebook efficiently in his campaign. In the context of 2002 Greek local elections, [Yannas and Lappas, 05] found that most of the candidates who implemented a web campaign won the elections. In addition, empirical evidence derived from the 2010 local elections in Greece suggested that candidates with a Facebook profile doubled their winning odds compared to non-Facebook adopters [Lappas et al., 12]. Twitter use also proved to be an important factor that influenced the election outcome during the 2010 Dutch national elections [Kruikemeier, 14]. Specifically, "candidates who used Twitter during the course of the campaign received more votes than those who did not" (p. 131). In a similar vein, [Vergeer et al., 13] found that the use of Twitter by candidates running for the 2009 European Parliamentary elections in Netherlands was clearly related to the number of votes candidates had received. Based on the aforementioned results, the following hypotheses were developed:

H4: The number of votes received is influenced by (a) Facebook, (b) Twitter, and (c) YouTube adoption.

Several studies have claimed that a candidate's popularity on social media platforms reflects his/her popularity on the voters. For example, [Williams and Gulati, 07] investigating the 2006 U,S, Congressional elections found that the number of a candidate's Facebook friends is a significant indicator of his relative vote share. Other studies point out that the "like" feature of Facebook posts can reflect the "real" vote share of candidates. For example, in the 2009 Greek National elections the winning

party PASOK outpaced the other parties in the number of the "likes" received by its Facebook friends [Lappas et al., 10]. Similar results were found in the context of the Finnish national election where the winning party (Finns party) came first in the number of Facebook "likes" received [Leskinen, 12]. The Prime Minister Julia Gillard who won the Australian election in the 2010 was also the winner in the Facebook liking arena [Macnarama and Kenning, 11]. In regards to Twitter, [Kruikemeier, 14] found that the number of followers a candidate has on his/her profile closely resembles the amount of votes received. In a similar vein, it is herein argued that the number of views of uploaded videos on a candidate's YouTube channel will be related to his vote share. Based on the aforementioned, the following hypotheses were developed:

H5: The number of votes received by a candidate is significantly related to the number of (a) Facebook page likes, (b) Twitter followers, and (c) YouTube video views.

Figure 1 summarizes the proposed hypotheses that will be tested by the present study.

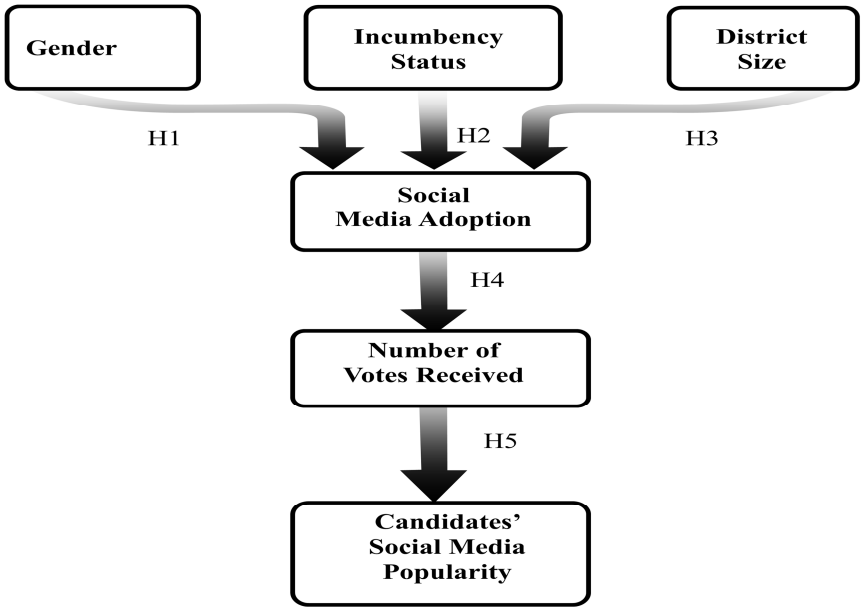


Figure 1: Conceptual model of the study

4 Greek Municipal Elections and Social Media

This study deals with candidates usage of social media during the 2014 Greek municipal elections. Municipal elections in Greece are held every four years along with the prefectural elections. Internet made its first appearance in local Greek elections on the 2002 election cycle, where candidates started creating websites in order to disseminate personalized information to their citizenry. Back then, websites

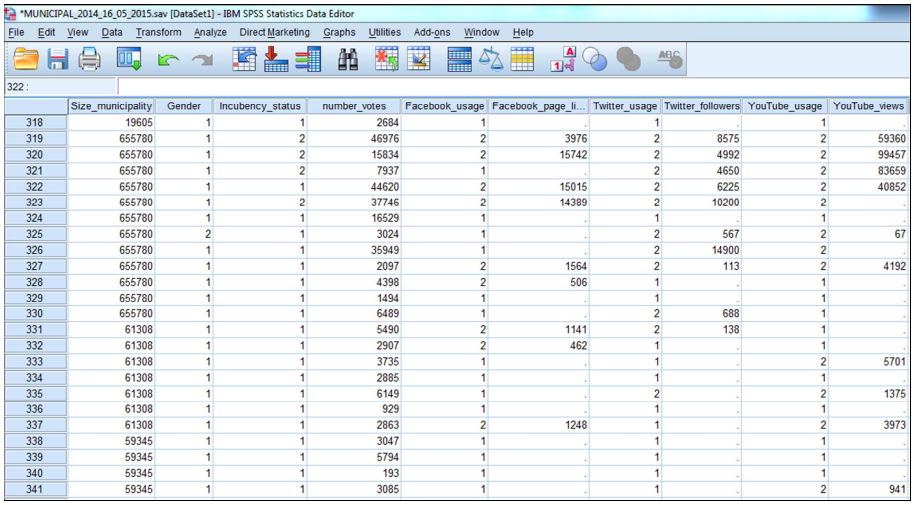
were used primary for the provision of top-down communication while interactive features were not exploited by Greek candidates [Yannas and Lappas, 05]. Moreover, voters chose a municipal candidate based more on his/her personality and less on his/her party affiliation. Hence, the Internet fulfiled candidates' need for a more personalized campaign. In the 2010 Greek local election a critical number of candidates had presence on Facebook (26.4%) whereas YouTube (9.4%) and Twitter (7.4%) were exploited as campaign platforms by a small number of early adopters. Four years later, it remains to be seen whether Greek candidates have become adopters of social media platforms or have remained laggards in social media usage.

5 Methodology and Results

The analysis presented in this paper is based on a sample of 1,318 candidates who ran for the May 2014 Greek Municipal elections. The data for this study came from sources such as official state records and various online platforms. For each candidate data were collected regarding the size of the municipality in which he/she was contested, the number of votes he/she received, the gender, the incumbency status of the candidate. Then researchers examined whether each candidate had an official Facebook page, a Twitter acount and a YouTube channel. Moreover, data regarding candidates' social media popularity were collected. Specifically, the variables of the study were operationalized as follows:

- Size of Municipality: number of inhabitants in a given municipality.
- Gender
- Incumbency Status: coded 0 if the candidate was holder of a political position and 1 if the candidate had no prior political experience.
- Usage of Facebook: coded 0 if the candidate did not have a Facebook page and 1 if the candidate had an official Facebook page.
- Usage of Twitter: coded 0 if the candidate did not have Twitter account and 1 if the candidate had an official Twitter account.
- Usage of YouTube: coded 0 if the candidate did not have a YouTube account and 1 if the candidate had an official YouTube channel.
- Facebook Page Popularity: number of Page Likes.
- Twitter Account Popularity: number of Twitter Followers.
- YouTube Channel Popularity: number of views of videos uploaded to the Channel.

Figure 2 provides a screenshot of the dataset used for the statistical analysis.


*MUNICIPAL_2014_16_05_2015.sav [DataSet1] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Add-ons Window Help

322 :

	Size_municipality	Gender	Incubency_status	number_votes	Facebook_usage	Facebook_page_li...	Twitter_usage	Twitter_followers	YouTube_usage	YouTube_views
318	19605	1	1	2684	1	.	1	.	1	.
319	655780	1	2	46976	2	3976	2	8575	2	59360
320	655780	1	2	15834	2	15742	2	4992	2	99457
321	655780	1	2	7937	1	.	2	4650	2	83659
322	655780	1	1	44620	2	15015	2	6225	2	40852
323	655780	1	2	37746	2	14389	2	10200	2	.
324	655780	1	1	16529	1	.	1	.	1	.
325	655780	2	1	3024	1	.	2	567	2	67
326	655780	1	1	35949	1	.	2	14900	2	.
327	655780	1	1	2097	2	1564	2	113	2	4192
328	655780	1	1	4398	2	506	1	.	1	.
329	655780	1	1	1494	1	.	1	.	1	.
330	655780	1	1	6489	1	.	2	688	1	.
331	61308	1	1	5490	2	1141	2	138	1	.
332	61308	1	1	2907	2	462	1	.	1	.
333	61308	1	1	3735	1	.	1	.	2	5701
334	61308	1	1	2885	1	.	1	.	1	.
335	61308	1	1	6149	1	.	2	.	2	1375
336	61308	1	1	929	1	.	1	.	1	.
337	61308	1	1	2863	2	1248	1	.	2	3973
338	59345	1	1	3047	1	.	1	.	1	.
339	59345	1	1	5794	1	.	1	.	1	.
340	59345	1	1	193	1	.	1	.	1	.
341	59345	1	1	3085	1	.	1	.	2	941

Figure 2: Screenshot of dataset

Following data collection, the statistical package for social sciences SPSS 17.0 was utilized in order to test the research hypotheses. Based on the analysis, almost 30.2 percent of candidates (398 candidates) had a Facebook page. A closer look at the social media pages of the candidates indicates that an average Facebook page of candidates running for the municipality seats received 1,159.52 "page likes". Regarding, Twitter and YouTube usage, only 9.5 percent of the candidates (125 candidates) had an official Twitter account while 14.2 percent of them (187) had a YouTube channel. On average, candidates with a Twitter account had 1.947.32 "followers" while candidates with a YouTube channel had 5.861,41 views on their upoloaded videos.

Most of the candidates were males (89.7%) while only 10.3% of them were females. Table 1 shows how social media usage is differentiated between male and female candidates. Based on the findings, Facebook was adopted by 31% (367 candidates) of males and 22.8% (31 candidates) of females. In addition, 10% (118 candidates) of males were present on Twitter whereas the percentage for females was 5.1% (7 candidates). In a similar vein, 14.9% (176 candidates) of male and 8.1% (11 candidates) of female candidates created a YouTube channel. However, it should be noted that male candidates were overrepresented in the sample.

Gender	**Facebook**		**Twitter**		**YouTube**	
	No	Yes	No	Yes	No	Yes
Males	815	367	1064	118	1006	176
Females	105	31	129	7	125	11

Table 1: Social Media Usage Between Male and Female Candidates

Regarding, the incumbency status of candidates, 68% were regarded as incumbents and 32% as challengers. As Table 2 shows 26.6% (239 candidates) of incumbents had a Facebook presence while the percentage of challengers was 37.9% (159 candidates). In regards to Twitter, 7.7% (69 candidates) of incumbents were users of Twitter compared to 13.4% (56 candidates) of challengers who were active Twitter users. YouTube attracted the interest of 13.0% (117 candidates) incumbents and 16.7% (70 candidates) of challengers.

Incumbency Status	**Facebook**		**Twitter**		**YouTube**	
	No	Yes	No	Yes	No	Yes
Incumbents	660	239	830	69	782	117
Challengers	260	159	363	56	349	70

Table 2: Social Media Usage Between Challengers and Incumbents

In order to test whether a candidate's gender and incumbency status predicts the use of social media three binary logistic regressions were performed. Binary logistic regressions were used to answer the hypotheses H1 and H2. This type of regression was used since the dependent variables of interest - Facebook; Twitter; YouTube use - are dichotomous categorical variables. The results of the regression analyses are shown in Table 3.

	Facebook		**Twitter**		**YouTube**	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Constant	0.324	0.000	0.092	0.000	0.235	0.001
Gender	0.701	0099	0.532	0.116	0.521	0.046
Incumbency	1.659	0.000	1.805	0.002	1.301	0.110
-2Log Likelihood	1,594.61		813.48		1,068.66	
Chi-Square	20.007	0.000	13.154	0.001	7.788	0.020

Table 3: Binary logistic regressions results for social media use

Regarding the regression model about the use of Facebook, the -2Log-likelihood value of the model was 1,594.61. Moreover, the significance level of the chi-square statistic is small (χ^2= 20.00, p = 0.000), thus, it can be concluded that the model is significantly better than the intercept only model. Hence, the model explains well the variations in the Facebook usage. The regression model was also evaluated by using the goodness-of-fit test proposed by Hosmer and Lemeshow. The chi-square value of the Hosmer and Lemeshow test was insignificant (χ^2= 0.013, p= 0.994) indicating a good fit for the data. As Table 3 shows only the incumbency status coefficient is statistically significant. Exp (B) for incumbency status is 1.659 which means that a candidate is 1.659 times more likely to have a Facebook page if she/he is a challenger. Hence, H1a is rejected while H2a is accepted.

In the case of Twitter usage, the -2Log-likelihood value of the regression model was 813.48 while the chi-square estimate was 13.154 and significant at the 0.05 level of significance. Thus, the model seems to explain the variation in Twitter use since it performs significantly better than the intercept model. Based on the chi-square value

of the Hosmer and Lemeshow test (χ^2= 0.030, p= 0.861) it can be assumed that the data fit the model well. Based on the regression coefficients, the incumbency status was found to be a significant (p<0.05) predictor of Twitter usage. Specifically, as the Exp(B) value indicates, a challenger is 1.805 more times likely to have an account on Twitter compared to an incumbent. Gender did not influence significantly (p>0.05) the adoption of Twitter. Thus, H1b was accepted while H2b was rejected.

H1c and H2c tests whether YouTube usage is predicted by the gender of the candidate and his/her incumbency status. Results of the binary logistic regression for YouTube usage are shown in Table 3. The -2Log-likelihood value of the regression model was 1,068.66 and the chi-square was 7.788 (sig=0.020). Hence, the model explained well the variation in YouTube use and it performed significantly better than the intercept model. The chi-square value of the Hosmer and Lemeshow test was insignificant (χ^2= 0.160, p= 0.689) which indicates a good fit for the data. Results of the regression analysis suggest that a candidate's gender is a significant driver (p<0.05) of his/her usage of YouTube. However, the Exp(B) value indicates that the strength of the association between gender and YouTube adoption is weak since a male candidate is 0.521 times more likely to have a YouTube account compared to a female counterpart. On the other hand, YouTube usage is not significantly (p>0.05) influenced by his/her incumbency status. Thus, H1c is accepted while H2c is rejected.

H3 assumes that candidates running in electoral districts with high population densities are more likely to use social media such as Facebook, Twitter and YouTube as campaigning tools compared to candidates who run in small municipalities. In order to test H3, independent samples t-tests were performed. Results of the tests are shown in Table 4.

	Mean number of a municipality's inhabitants	T-Statistic/ Significance
Candidates with a Facebook Page	69,037.92	3.747/ 0.000
Candidates without a Facebook Page	46,135.58	
Candidates with a Twitter Account	137,028.93	10.062/ 0.000
Candidates without a Twitter Account	44,171.55	
Candidates with a YouTube Channel	112,029.94	8.648/ 0.000
Candidates without a YouTube Channel	43,526.29	

Table 4: Independent samples t-tests for social media use and district population

Findings indicate that significant differences (p<0.05) exist between Facebook candidates and non-Facebook candidates in regards to the population density of the municipality in which they contest (t=-3.747, sig=0.000). Specifically, candidates with a Facebook page contest in larger municipalities in terms of inhabitants (M=69,037.92) compared to candidates who do not make use of Facebook as a campaigning tool (M=46,135.58). Thus, it can be argued that candidates running in large electoral districts are more likely to use Facebook in order to get noticed and communicate with their citizenry compared to candidates who contest in small districts. Hence, H3a is accepted.

Candidates with a Twitter account also differed significantly (p<0.05) from those who did not use Twitter in the mean number of inhabitants in the districts in which

they contested (t=10.062, sig=0.000). Specifically, Twitter candidates contested in municipalities with larger population (M=69,037.92) compared to non-Twitter candidates (M=46,135.58). Thus, Twitter is exploited by candidates who wish to appeal to larger audiences. H3b is accepted.

In regards to YouTube usage, significant differences at the $p<0.05$ level were found between candidates who are users of YouTube and those who are not in the mean number of inhabitants of their districts (t=8.648, sig=0.000). In particular, candidates with a YouTube channel contested in larger districts (M=112,029.94) compared to candidates who did not utilized YouTube during their election campaigns (M=43,526.29). Similar to Facebook and Twitter, YouTube is used by candidates who desire to build their reputation on a large scale. As a consequence, H3c is accepted.

H4 examines whether social media usage (i.e., Facebook, Twitter, and YouTube) can influence the vote share of a candidate. Independent samples t-tests were used again to test H4 (Table 3).

	Mean Number of Votes	T-Statistic/ Significance
Candidates with a Facebook Page	5,895.16	8.267/ 0.000
Candidates without a Facebook Page	3,569.58	
Candidates with a Twitter Account	8,493.03	10.252/ 0.000
Candidates without a Twitter Account	3,859.48	
Candidates with a YouTube Channel	7,547.88	9.947/ 0.000
Candidates without a YouTube Channel	3,761.41	

Table 5: Independent samples t-tests for social media use and number of votes

Based on Table 5, significant differences ($p<0.05$) were found between Facebook candidates and non-Facebook candidates in terms of vote share (t=8,267, sig=0.000). In particular, the mean score of votes for candidates with a Facebook page (M=5,895.16) is higher compared to candidates without a Facebook page (M=3,569.58). Hence, it can be argued that the usage of a Facebook page could be a factor that might exert an influence on the vote share of candidate. H4a was supported.

In addition, candidates with a Twitter account differed significantly ($p<0.05$) from candidates who did not use Twitter in regards to the mean number of votes received (t=10.252, sig=0.000). Specifically, Twitter candidates received more votes (M=8,493.03) compared to non-Twitter candidates (M=3,859.48). Therefore, it can be suggested that the use of Twitter is an important driver of a candidate's vote share. H4b was accepted. In a similar vein, significant differences at the $p<0.05$ level were found between YouTube candidates and non-YouTube candidates in the mean number of votes received (t=9.947, sig=0.000). Candidates who created a YouTube channel received more votes compared to candidates who did not utilize YouTube. Thus, H4b was accepted.

In order to test H5, which implies that a candidate's popularity on social media as reflected in the number of Facebook "page likes", Twitter "followers", and YouTube "video views" is an important factor that influences his/her vote share, a correlation

analysis was conducted using Pearson's coefficient. Pearson's correlation coefficient was utilized since the variables under scrutinity were continuous and Pearson's coefficient measures the strength and direction of relationship between two continuous variables. Moreover, the values of Pearson coefficient range between -1 to +1.

Results indicate that there is a significant ($p<0.05$) positive correlation between the number of Facebook "page likes" and the number of vote share of candidates ($r=0.583$). The significant correlation found could be characterized as moderate since the value of Pearson's coefficient was below 0.70. Hence, one can conclude that as the number of a candidate's Facebook "page likes" increases then his/her vote share will increase as well, in a moderate level. In other words, as citizens become aware of a candidate's Facebook page and support it by pressing the "page like" button then the chances that citizens might vote for that candidate might increase as well. H5a was supported.

No significant correlation ($p>0.05$) was found between the number of followers in a candidate's Twitter profile and his/her vote share ($r=0.091$). It seems that a candidate's popularity on Twitter is not an indication of his/her electoral performance. Thus, H5b is rejected. On the contrary, the YouTube popularity of a candidate as reflected in the number of views of his/her uploaded videos is significantly ($p<0.05$) correlated with the vote share ($r=0.383$). This significant association proved to be moderate. As a result, as the number of views a candidate receives on the uploaded videos of his/her YouTube channel increases then the candidate's vote share increases as well in a moderate degree. Similarly to Facebook, a candidate's popularity on YouTube could be regarded as an indicator of his/her real offline reputation. H5c was accepted.

6 Conclusions

The present study examined the use of social media (i.e., Facebook, Twitter, and YouTube) by Greek candidates running for the 2014 local elections. Moreover, the factors that affect social media implementation by candidates were investigated. Finally, the impact of social media adoption on candidates' vote share was assessed.
Exploitation of social media during the municipal election was pretty low since the majority of candidates were not present on Facebook,Twitter and YouTube. Only 30.2% of candidates owned a Facebook page, 9.5% had a Twitter account, and 14.2% a YouTube channel. Small increases in the use of social media were found in the 2014 elections compared to the municipal elections of 2010 in which 26.4% of candidates utilized Facebook, 7.4% Twitter, and 9.4% YouTube [Lappas et al., 12]. Evidence suggests that candidates of the local elections are moving towards the implementation of social media campaigns, albeit slowly.

Facebook was found to be the dominant social media platform used by candidates as a campaign tool followed by YouTube and Twitter. These levels of social media usage are in line with the popularity of each of the aforementioned social media platform among the Greek internet users. Based on Alexa rankings[1], Facebook was the 2nd most popular page in Greece while YouTube was ranked as the 4th most

[1] http://www.alexa.com/topsites/countries/GR

popular and Twitter took the 9th position. A closer look at the use of Facebook indicates that candidates might have not utilized extensively Facebook as a tool for election campaigning due to the fact that the majority of Greek citizens are not using Facebook. Facebook penetration in Greece is 41% while 26% of social networking sites' users access social media via their smart-phones [European Digital Landscape, 14]. Other possible reasons for this low exploitation of social media tools could be attributed to the fact that Greek municipal candidates continue to rely on traditional forms of campaigning such as face-to-face communication.

The present study also shed light on the drivers of social media usage. Specifically, a candidate's prior political experience was found to be an important predictor of the adoption of Facebook and Twitter. In agreement with our expectations that challengers might be more inclined to incorporate social media in their campaigns in order to overcome the advantages of incumbents who have established supporters and contacts [Williams and Gulati, 13] the present study found that challengers are paving the way in Facebook and Twitter usage. This finding could be attributed to the fact that challengers try to build their reputation based on campaign tools that are cost-effective and are capable of reaching mass audiences. Moreover, gender proved to be an important indicator of YouTube usage with male candidates characterized as adopters. Perhaps, the increased adoption of YouTube by males could be explained by the fact that YouTube in general is used by more males compared to females[2].

A significant impact of urbanization on the adoption of all the three social media platforms was also found. These results are similar with those reported by the study of [Strandberg, 13] in the context of Finnish elections. Specifically, candidates in the 2011 Finnish Parliamentary elections who contested in large districts were more likely to be adopters of social media. Male candidates in Finland were also more inclined to incorporate in their campaigns social media tools. However, as in our analysis, the association between gender and social media use was weak. Thus, in the Greek context social media such as Facebook, Twitter, and YouTube are becoming important platforms for targeting voters in densely populated urban areas. On the contrary, candidates originating from small districts continue to rely on other traditional forms of communications like door-to-door campaigns.

Web 2.0 tools such as Facebook are considered as political marketing tools used by candidates to send messages to potential voters [Andersen and Medaglia, 09], to interact with them, to influence their thoughts and attitudes and finally to win their votes [Utz, 09]. The present research revealed significant relationships between social media use and vote share. Hence, Facebook, Twitter and YouTube were identified by the present study as powerful political marketing tools that can boost a candidate's vote share. Politicians can win votes if they are active users of the three platforms.

Moreover, a candidate's popularity on Facebook and YouTube as reflected in the amount of "page likes" and "video views" received can also be regarded as an indication of his/her ability to reach voters offline. This study found that Greek voters will connect on Facebook with the candidate that they will vote. Therefore, the more "page likes" a candidate receives the wider its offline impact would be in terms of

[2]http://www.huffingtonpost.com/2012/06/20/social-media-by-gender-women-pinterest-men-reddit-infographic_n_1613812.html

vote share. The above findings are consistent with the earlier study of [Williams and Gulati, 07] which found a significant relationship between a candidate's Facebook supporters and his/her vote share.The positive link found in the present study between the number of "page likes" and the number of votes could be attributed to the content posted on the Facebook pages of candidates. Perhaps, candidates with higher scores than their opponents on the number of "page likes", succeeded in engaging their followers by publishing interesting content. As a consequence Facebook engagement was then transformed into offline support.

For example, in the municipality of Piraeus, the candidacy of Yannis Moralis ("page likes": 14,524), who won the elections differentiated his Facebook campaign from his main competitor Michaloliakos Vasileios ("page likes": 7,048). Specifically, Yannis Moralis posted content regarding his priorities focusing on young people, athletics and sports. His posts also included photos with children as well as young volunteers. In addition, a number of the posts published were photos and information about one of his municipal candidate councilors Evangelos Marinakis who is a famous shipping magnate and president of Piraeus football club Olympiacos. Hence, Yannis Moralis used his candidate councilor as an endorsement for his campaign. However, one of the most important features of his Facebook campaign was the communication style he used. Most of the posts were "we messages" with positive tone that aimed to build relationships with users. Furthermore, a number of posts prompted users to share the messages with other users while Yannis Moralis engaged in dialogue with his users by replying to their comments. On the contrary, Vasileios Michaloliakos provided mainly one way information to his Facebook users. Specifically, his posts informed users about his appearances and interviews in television, his speeches, and his meetings with professional groups and candidates.

Another example of Facebook campaign strategy differentiation was that of Patoulis Georgios who contested in the municipality of Marousi against his competitor Vlachos Konstantinos. Patoulis Georgios was an incumbent ("page likes": 6,719) and won again the 2014 elections. The majority of his posts on Facebook included information about his proposed social policies towards the poor and elderly. Moreover, his Facebook campaign focused on profiling his candidate councilors as well as his accomplishments as a mayor. On the other hand, his competitor Vlachos Konstantinos ("page likes": 386) concentrated on publishing posts about his speeches, meetings with citizens and associations. Another important feature of his Facebook page was negative campaigning since a large number of posts referred to the negative aspects of the main opponent Mr. Patoulis Georgios. Hence, it can be concluded that the way a candidate promotes his/her self on Facebook could affect the awareness users have of his/her Facebook page which in turn would influence the number of votes received.

Furthermore, this study showed that the number of views a candidate receives about his/her videos uploaded on his/her YouTube channel could be a proxy for his offline success. As a consequence, voters actively use YouTube to watch the videos of their favorite candidate. Thus, YouTube could be characterized as a social media site that enhance voters' political engagement since their decision to vote for a particular candidate is based on their active involvement with the online content created and publicized by the candidate. On the contrary, a candidate's popularity on Twitter did not impact on his/her vote share. Possible reasons could be that (a) only a

small number of candidates are users of Twitter, (b) those candidates who use it have not fully exploited the real potential of Twitter for attracting voters but rather use it as a complementary medium in conjuction with Facebook and YouTube, (c) Twitter activity of candidates is limited to sharing the posts created on the Facebook and YouTube platforms, (d) candidates use Twitter only to provide top-down communication while they do not try to interact with their online followers, and (e) voters do not use Twitter either for political reasons or to get informed and interact with candidates in times of elections.

To sum up, the current research contributes to the growing body of knowledge on e-campaigning in a number of ways. First, the differential effect of various drivers on the adoption of three different social media platforms was confirmed. Specifically, incumbency status affected only adoption of Facebook and Twitter while gender influenced only YouTube usage by candidates. These findings suggest that not all candidates treat the different social media platforms in the same way and decisions on whether to utilise the various social media depends on the type of plaform and the characteristics of candidates. Second, findings of this study point towards the equalization perspective since challengers were most likely to adopt new media such as Facebook and Twitter. Until now the equalization hypothesis dominated for campaigns of candidates during European elections at the national level such as the 2012 French Presidential elections [Koc-Michalska et al., 14], the 2011Danish general elections [Hansen and Kosiara-Pedersen, 14], and the 2010 UK general elections [Southern, 15]. The present study proved that the equalization effect of social media on election campaigns can emerge in smaller countries like Greece as well and for election taking place at a local level. The dominance of equalization on the case of Greece could be attributed to a macro-economic factor that of the economic crisis. This conclusion could be further supported by the fact that in the context of counties outside the European zone and not facing the devastating impact of economic crisis such as the United States and Australia the normalization and not the equalization hypothesis seems to prevail on e-campaigning [Williams and Gulati, 13; Gulati and Williams, 13; Gibson and McAllister, 15]. Thus, our findings can be valued from another perspective since they highlighted the importance of macro-economic factors (i.e., economic crisis) on the way electoral competition is formulated. Thus, the economic crisis can act as an important driver that can alter the existing power relations and political status quo encouraging "outsiders" and disadvantaged candidates to try and find alternative and cost-effective ways to become visible to the public by incorporating the new interactive technologies. Third, the current study deals not only with the supply side of e-campaigning but also with the demand side by confirming the significant impact of social media campaigning on the winning odds of candidates. Lastly, our study enhances the limited knowledge about the potential of YouTube as a campaigning tool for increasing the awareness of candidates and increasing their vote share.

Several practical implications arise from the study's findings. Political marketers should take serious consideration on the current impact of social media such as Facebook, Twitter, and YouTube on election campaigns and underscore to their clients the crucial role of maintaining a social media presence. Since voters prefer candidates who are on social media, it seems imperative for politicians to include Web 2.0 tools on their campaigns. However, simply maintaining a profile on social

media do not quarantee an election success.Politicians need to attract online supporters by building Facebook relationships as well as to engage voters by uploading interesting content on YouTube that increases viewership. In other words, creation of a large Facebook network and increase of YouTube viewership should be the primary objectives of the social media campaigns of candidates who desire to win more votes.

7 Future Work

What was the aftermath of social media campaigns following the 2014 Greek Municipal elections? Answering this question is not a simple task since Facebook, Twitter and YouTube are only three out of the many campaign tools Greek candidates used to lure their voters (i.e., TV ads, speeches) and voting decision is affected by other micro and macro factors as well (i.e., political ideology, economic climate). In the present study, the impact of social media usage on voting share was assessed without taking under consideration other indicators that might influence voters. [Jungherr et al., 12] highlights the danger of reporting biased results by excluding certain variables from the models that predict voting share. In addition, our claim regarding the impact of social media on voters' decisions should be interpreted with care since we focus only on the Greek municipal elections in a specific time period. Hence, future research should continue to test the impact of social media alongside with other traditional and online media.

This study tested the impact of Facebook page likes, Twitter followers, and YouTube views on vote share. Fruitful insights could be yielded by testing the impact of other social media metrics such as social media activity (i.e., number of Facebook posts, Tweets, and YouTube videos) and engagement (i.e., number of comments on Facebook posts, users' replies on Twitter, and comments on YouTube). This way a more holistic quantitative model could be tested regarding which specific social media factors impact on voters' preferences.

The current research could serve as a preliminary analysis about the relationships between a candidate's social media popularity and his/her vote share. Results indicate that a candidate's number of 'page likes' and 'YouTube video views' can act as proxies of his/her relative offline strength as well as predictors of vote share. Thus, based on the findings of the study a decision support system could be designed that would accurately predict the votes received by candidates using quantitative metrics such as the number of 'Facebook page likes' or "YouTube video views" as well as more qualitative measures like the types of "Facebook posts" or "YouTube videos". This way a decision support system could be developed that can viably aid political marketers and candidates in determining which social media strategy and content would best match their voters' preferences in order to increase their social media popularity and finally their winning odds.

Acknowledgements

This research has been co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) -

Research Funding Program: ARCHIMEDES III. Investing in knowledge society through the European Social Fund.

References

[Andersen and Medaglia, 09] Andersen, K. N., Medaglia, R.: The Use of Facebook in National Election Campaigns: Politics as Usual?, In Electronic Participation, Springer Berlin Heidelberg, 2009, 101-111

[Chen, 08] Chen, P. J.: Candidates' New Media Use in the 2007 Australian National Election, Record of the Communications Policy & Research Forum, 2008, 62–78, http://www.networkinsight.org/verve/_resources/Record_CPRF08.pdf

[Conway et al., 13] Conway, B. A., Kenski, K., Wang, D.: Twitter Use by Presidential Primary Candidates during the 2012 Campaign, American Behavioral Scientist, 57, 11, 1596-1610, 2013

[Cornfield and Rainie, 06] Cornfield, M., Rainie, L.: The Impact of the Internet on Politics, Pew Internet and American Life Project, 2006, http://www.pewinternet.org/ppt/pip_internet and politics.pdf

[Cortese and Proffitt, 12] Cortese, J., Proffitt, J. M.: Looking Back as we Prepare to Move Forward: US Presidential Candidates' Adoption of YouTube, Cyberpsychology, Behavior, and Social Networking, 15, 12, 693-697, 2012

[Effing et al., 11] Effing, R., Hillegersberg, J.V., Huibers, T.: Social Media and Political Participation: Are Facebook, Twitter and Youtube Democratizing our Political Systems?, Electronic Participation, 6847, 25-35, 2011

[Enli and Skogerbø, 13] Enli, G., Skogerbø, E.: Personalized Campaigns in Party-Centred Politics, Information, Communication & Society, 16, 5, 757-774, 2013

[European Digital Landscape, 14] European Digital Landscape, 2014, http://147.102.16.219/demo1/attachments/124_european%20digital% 20landscape% 202014. pdf

[Evans et al., 14] Evans, H. K., Cordova, V., & Sipole, S.: Twitter Style: An Analysis of How House Candidates Used Twitter in their 2012 Campaigns, Political Science & Politics, 47, 2, 454-462, 2014

[Gibson and McAllister, 15] Gibson, R. K., McAllister, I.: Normalising or Equalising Party Competition? Assessing the Impact of the Web on Election Campaigning, Political Studies, 63, 3, 529-547, 2015

[Golbeck et al., 10] Golbeck, J., Grimes, J., Rogers, A.: Twitter Use by the U.S. Congress, Journal of the American Society for Information Science and Technology, 61, 8, 1612 – 1621, 2010

[Gueorguieva, 08] Gueorguieva, V.: Voters, Myspace, and Youtube: The Impact of Alternative Communication Channels on The 2006 Election Cycle and Beyond, Social Science Computer Review, 26, 3, 288-300, 2008

[Gulati and Williams, 10] Gulati, G. J., Williams, C.B.: Congressional Candidates' Use of YouTube in 2008: Its Frequency and Rationale, Journal of Information Technology & Politics, 7, 2-3, 93-109, 2010

[Gulati and Williams, 11] Gulati, J., Williams, C.: Diffusion of Innovations and Online Campaigns: Social Media Adoption in the 2010 U.S. Congressional Elections, 6th General Conference of the European Consortium for Political Research, Reykjavik, Iceland, August 2011.

[Gulati and Williams, 13] Gulati, G. J., Williams, C. B.: Social Media and Campaign 2012: Developments and Trends for Facebook Adoption, Social Science Computer Review, 2013

[Hansen and Kosiara-Pedersen, 14] Hansen, K. M., Kosiara-Pedersen, K.: Cyber-Campaigning in Denmark: Application and Effects of Candidate Campaigning, Journal of Information Technology & Politics, 11, 2, 206-219, 2014

[Johnson et al., 10] Johnson, T., Perlmutter, D.: Introduction: The Facebook Election, Mass Communication and Society, 13, 554-559, 2010

[Jungherr et al., 12] Jungherr, A., Jürgens, P., Schoen, H.: Why the Pirate Party Won the German Election of 2009 or the Trouble with Predictions: A Response to Tumasjan, A., Sprenger, To, Sander, PG, & Welpe, IM Predicting Elections with Twitter: What 140 Characters Reveal About Political Sentiment, Social Science Computer Review, 30, 2, 229-234, 2012

[Karlsen, 11] Karlsen, R.: A Platform for Individualized Campaigning? Social Media and Parliamentary Candidates in the 2009 Norwegian Election Campaign, Policy & Internet, 3, 4, 1-25, 2011

[Klinger, 13] Klinger, U.: Mastering the Art of Social Media: Swiss Parties, the 2011 National Election and Digital Challenges, Information, Communication & Society, 16, 5, 717-736, 2013

[Koc-Michalska et al., 14] Koc-Michalska, K., Gibson, R., Vedel, T.: Online Campaigning in France, 2007–2012: Political Actors and Citizens in the Aftermath of the Web. 2.0 Evolution, Journal of Information Technology & Politics, 11, 2, 220-244, 2014

[Kruikemeier, 14] Kruikemeier, S.: How Political Candidates Use Twitter and the Impact on Votes, Computers in Human Behavior, 34, 131-139, 2014

[Lappas et al., 10] Lappas, G., Kleftodimos, A., Yannas, P.: Greek Parties and Web 2.0, Paper Presented at the Workshop: Elections, Campaigning and Citizens Online, Oxford Internet Institute, 2010

[Lappas et al., 12] Lappas, G., Triantafillidou, A., Yannas, P.: Social Media Campaigning by Candidates in The 2010 Greek Municipal Elections, Paper presented at the International Conference on Contemporary Marketing Issues, Thessaloniki, Greece, June, 2012

[Larsson and Kalsnes, 14] Larsson, A. O., Kalsnes, B.: Of Course we are on Facebook': Use and Non-Use of Social Media among Swedish and Norwegian Politicians, European Journal of Communication, 2014

[Leskinen, 12] Leskinen, H.: The Greens of Finland in Social Media: Facebook as a Communication Forum, Unpublished Bachelor's Thesis, Theseus.fi database, 2012

[Lytras et al., 2015] Lytras, M. D., Al-Halabi, W., Zhang, J. X., Haraty, R. A., Masud, M.: Enabling Technologies and Business Infrastructures for Next Generation Social Media: Big Data, Cloud Computing, Internet of Things and Virtual Reality, Journal of Universal Computer Science, 21, 11, 1379-1384, 2015

[Macnamara and Kenning, 11] Macnamara, J., Kenning, G.: E-electioneering 2010: Trends in Social Media Use in Australian Political Communication, Media International Australia, Incorporating Culture & Policy, 139, 7-22, 2011

[Norris, 00] Norris, P.: A Virtuous Circle: Political Communications in Postindustrial Societies, Cambridge: Cambridge University Press, 2000

[Pena-Lopez, 11] Pena-Lopez, I.: Striving Behind the Shadow – The Dawn of Spanish Politics 2.0, In Van der Hof, S., Groothuis, M. (eds.), Innovating Government. Normative, Policy and Technological Dimensions of Modern Government, Hershey: IGI Global, 2011, 111-128

[Southern, 15] Southern, R.: Is Web 2.0 Providing a Voice for Outsiders? A Comparison of Personal Web Site and Social Media Use by Candidates at the 2010 UK General Election, Journal of Information Technology & Politics, 12, 1, 1-17, 2015

[Strandberg, 13] Strandberg, K.: A Social Media Revolution or Just a Case of History Repeating Itself? The Use of Social Media in the 2011 Finnish Parliamentary Elections, New Media & Society, 2013

[Tops et al., 00] Tops, P., Horrocks I., Hoff J.: New Technology And Democratic Renewal: The Evidence Assessed, In Tops, P. (ed.), Democratic Governance and New Technology, London: Routledge, 2000

[Utz, 09] Utz, S.: The (Potential) Benefits of Campaigning via Social Networking Sites, Journal of Computer Mediated Communication, 14, 2, 221-243, 2009

[Vergeer et al., 13] Vergeer, M., Hermans, L., Sams, S.: Online Social Networks and Microblogging in Political Campaigning: The Exploration of a New Campaign Tool and New Campaign Style, Party Politics, 19, 3, 477-501, 2013

[Vesnic-Alujevic, 12] Vesnic-Alujevic, L.: Political Participation and Web 2.0 in Europe: A Case Study of Facebook, Public Relations Review, 38, 3, 466-470, 2012

[Williams and Gulati, 07] Williams, C., Gulati, G.: Social Networks in Political Campaigns: Facebook and the 2006 Midterm Elections, Paper presented at the 2007 Annual Meeting of the American Political Science Association, Chicago, Illinois, August 2007

[Williams and Gulati, 13] Williams, C. B., Gulati, G. J.: Social Networks in Political Campaigns: Facebook and the Congressional Elections of 2006 and 2008, New Media & Society, 15, 1, 52-71, 2013

[Williamson, 09] Williamson, D.: Social Network Ad Spending: 2010 Outlook. e-Marketer, December (2009)

[Yannas and Lappas, 05] Yannas, P., Lappas, G.: Web Campaign in the 2002 Greek Municipal Elections, Journal of Political Marketing, 4, 1, 33-50, 2005

[Yannas et al., 11] Yannas, P., Kleftodimos, A., Lappas, G.: Online Political Marketing in the 2010 Greek Local Elections: The Shift From Web to Web 2.0 Campaigns, Paper presented at the 16th International Conference on Corporate and Marketing Communication, Athens, Greece, April, 2011