

# The Use of Social Media in Political Campaigns: The Case of Croatian Local Elections 2017

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**Abstract.** *Social media is a tool that allows political parties and candidates to interact with citizens. This research examines usage of social network Facebook by Croatian political candidates during the 2017 local elections. The aim of the research is twofold: to identify extent in which Facebook usage affects election results and to explore activities with the largest effect on election results. To address this questions, data from the Facebook pages of the candidates for the capital city major were collected and analysed by correlation analysis. Results indicate differences between candidates` activity which affect election results.*

**Keywords.** social media, campaign strategy, political campaign, election prediction

## 1 Introduction

Internet has enabled new approaches to communication and distribution of information. Participants in political campaigns have always used new and innovative ways of communication with the aim to reach the voters. Nowadays, internet has changed political communication and attracted the attention of researchers in the domain of political communication. The new dimension of research in this domain is achieved by the emergence of a social media platform (Strömbäck and Esser, 2009). Many authors point out that social media has changed the way of creating, distributing, and measuring political communication. Dynamic interactions and complex interdependencies at different levels brought by social media represent a challenge to traditional understanding of political communication (Strömbäck and Esser, 2009). Rapid expansion and application of social media in political campaigns around the world urged scientists to explore how does usage of social media affects political orientation, participation and attitudes of voters. Boyd states that a profound understanding of the characteristics and dynamics of social media communication provides a valuable framework for understanding the logic of social processes (Boyd, 2010). Buettner (2016) defines social media as a computer-mediated tools that allow you to

create, share, or exchange information, ideas, images, or videos in virtual communities and networks. There are various forms of social media: Blogspot, LiveJournal, Yahoo! answers, Epinions, Flickr, YouTube, Digg, Reddit, microblogs (Twitter, Foursquare) and social networks (Facebook, Myspace, LinkedIn, Twitter, Tribe) as the most popular form of social media (Wright and Hinson, 2009). Social media play a significant role in politics. Recent research has been conducted with the aim of identifying the influence of social media on political campaigns from several perspectives: political participation, political knowledge and political efficiency (Rahmawati, 2014). Common characteristic for each of them is persuasion, which is crucial to political campaigns. Every speech, every phone call, or announcement through social media has the purpose of propaganda created to influence the voters. Diffusion of social networks has allowed new approaches for measuring public opinion. Election prediction of election by using large social networking data is a new form of political prediction and is mainly used to generate predictions of election results by collecting relevant social network data. Some authors suggest that analysing data collected from social networks during the pre-election campaign could be a useful addition to traditional methods (e.g. Sang and Bos, 2012; Schober et.al., 2016). The main advantages of measuring public opinion through social media are accessibility and speed (Schober et.al., 2016).

The aim of this research is to determine the frequency and means of using social media in political campaigns and associate it to the outcomes of the election. To be more specific, Facebook usage by Croatian political candidates during the 2017 local elections is examined. In order to achieve the objective, this paper analyses the data collected in the context of Croatian local elections by applying descriptive statistics, correlation analysis and ANOVA. This paper is organized as follows. Literature review of this topic is explained in chapter 2. Chapter 3 presents research questions along with the data and methodology description. Chapter 4 presents results. Chapter 5 presents conclusion and directions for a further research.

## 2 Literature review

Literature review has been conducted and results shown that there is a need to monitor the content being published and to analyse the impact of that content on the targeted audience. Today, in the era of big data this is possible more than ever. Access to data provided a breakthrough from a mere assessment to data-based decision making. Which data and for what purposes have been used in the previous researches?

Housholder and LaMarre (2015) investigated relationship between expectations of the campaign on social media and information on participation in the elections that occurred as a result of activity on social media. The results indicate that social media engagement has a positive impact on the campaign. Authors point out that engagement on social networks can also help in prediction the outcome of the election. Housholder and LaMarre believe that future research should investigate to what extent certain types of engagement on social media result with desired outcomes (Housholder and LaMarre, 2015). Guleria et al. (2016) discussed the impact of an electronic campaign on the behaviour of voters, their awareness and understanding of political parties. Authors emphasizes the benefits of such campaigns in terms of wider coverage compared to traditional approaches. Their research is qualitative. The guidelines for future research indicate the need for quantitative research to prove the relationship between electronic media and political participation (Guleria et al., 2016). Chen and Chang investigated the link between Facebook and blog usage with motivation for information and political discussion (Chen and Chang, 2017). The results of the regression analysis have shown that the desire for political discussions is significant predictor of blogging, while the motivation for information is related to the Facebook usage. Bond et al. (2012) conducted an investigation of political messages to Facebook users during of the US election to Congress in 2010. The results show that messages sent by politicians through social media have a direct impact on the elections result, not just on the person who reads the message, but also to the people interacting with them. The interpretation of the results emphasizes the importance of a large number of social network followers as factors of election success (Bond et al., 2012). Hong and Nadler have been researching whether and to what extent Twitter's use for political purposes has the potential to influence public opinion (Hong and Nadler, 2012). Their results are based on the activities of American presidential candidates on Twitter. Their results have shown that Twitter's activity is not statistically significantly associated with the number of mentioning on Twitter (Hong and Nadler, 2012).

A review of recent papers revealed that very little study so far was conducted about the impact of social media on the election results themselves. Most of these studies focus on describing social media as a marketing

tool for politicians (e.g. Ahmad and Popa, 2014 or Christmann et. al., 2010). To understand the impact of social media and realize effectiveness of this tool, it is necessary to measure the use of social media for the purpose of political activities (Rahmawati, 2015). Borah (2016) highlights increasing number of research about application of social media sites for political purposes, but also points out that a small number of these surveys examine the content of the candidates' pages. On the same path are directions for further research from Praude and Skulme (2015). They highlighted the need for measuring the effectiveness of messages that are sent via social media.

## 3 Research methodology

An implementation of Facebook campaign has become a norm in the elections of most modern democratic societies, however it is yet to discover an impact of Facebook pages on the election results in the Croatian context. Accordingly, this study will investigate the Facebook usage during the 2017 local elections.

Following research questions are set up:

RQ1: To what extent usage of Facebook affects election results?

RQ2: Which activities have the largest effect on election results?

RQ3: Are there statistically significant differences between candidates in Facebook usage?

To address research questions, primary data were collected. Data set consists of posts on the Facebook pages of the candidates for the capital city major. The researchers limited the data to the one month activity: their page activity is monitored during the official campaign: from 21<sup>st</sup> April till 21<sup>st</sup> May. Table 1 depicts variables measured in the research.

**Table 1.** Variables description

Variable name	Variable description
Photos	Overall number of photos posted during the campaign
Videos	<i>Number of videos posted during the campaign</i>
Links	<i>Number of links posted during the campaign</i>
Statuses	<i>Number of statuses posted during the campaign</i>
Events	<i>Number of events created during the campaign</i>
Authors	<i>Number of different authors who created the page content</i>
Reactions	Average number of reactions on posts
Shares	Average number of posts shares
Comments	Average number of posts comments
Commenters	Average number of different commenters of posts

Reactors	Average number of different reactors
Top post	Type of most with most reactions
Top post reaction	Number of reactions on top post
Top post shares	Number of shares of top post
Top post comments	Number of comments on top post
Page likes	Overall number of page likes
Score	Percentage of votes on elections

Sociograph tool (2017) was used in order to extract data from the Facebook pages of candidates. The unit of analysis for this study was limited to the candidates for capital city major. There were eight candidates. Out of those, two candidates did not have active pages. Thus, six candidates were included in the research. Furthermore, election results in terms of candidates' percentage gained on the elections were also included. Data analysis includes use of a methodical approach to describe the findings from data, extract reasoning, and answer the research questions. This study relies on the use of statistical methods to analyse collected data. The findings were analysed by using descriptive statistics. Descriptive statistics is used to summarize and display

the quantitative data. The descriptive statistical methods present data in a summarised way that the underlying information contained in the data can be easily identified (Collis and Hussey, 2013). The following section presents descriptive statistics, correlation analysis and differences testing contained in the data about social media usage for political activities.

### 4 Research results

This section presents the results of the empirical study: descriptive analysis of the data and results' interpretation. This section also provides answers to the research questions.

By means of Sociograph (2017) data about six political candidates for capital city major were extracted. Out of eight candidates for capital city major, six of them (75%) had active Facebook pages during the official campaign. Candidate 1 did not have active page for whole period of campaign, just the half of period. Croatian candidates use Facebook in large extent to interact with citizens since three quarters of the candidates had active pages.

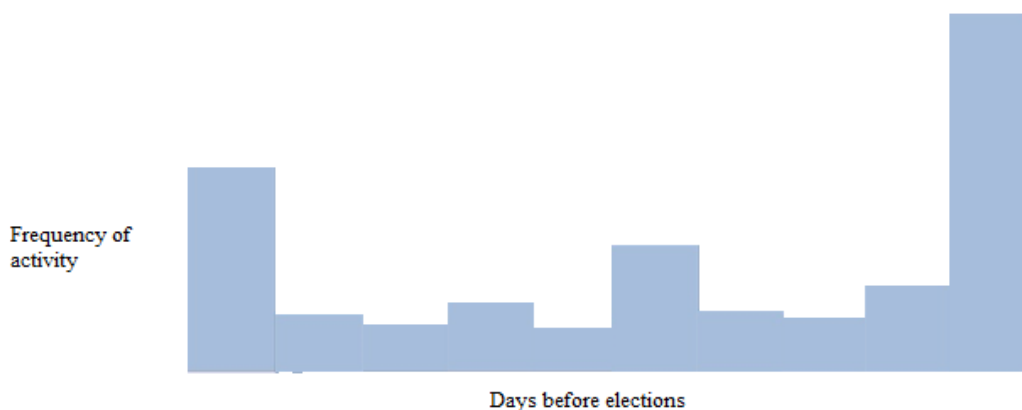


Figure 1. Frequency of candidate 1 activities

Closer look at the dynamics of each candidate activities during the observed period gave insight into frequency of the interaction with the audience. Fig 1 shows distributions of candidate 1 activities days before elections. Multimodal distribution is seen for Candidate 1. This shown to be common feature of all candidates, so only one candidate is emphasized here. This data provide a good indication that all candidates are more engaged at the beginning of campaign and on the end of the campaign. The frequency of the activities is not the same during the campaign. There are only slight differences in the dynamics of candidates' activity. In general, candidates are assigning higher

relevance to the use of social media for political communication closer to the elections.

Data contained in table 2 in show social media functions used by candidates. The type of activities that the politicians engage the most are photos, following by videos and statuses. One could infer that multimedia elements are dominant here. Statuses without multimedia elements such as photos or videos are rarely used by most candidates. Exception is candidate 2.

**Table 2.** Social media functions

	<i>Photos</i>	<i>Videos</i>	<i>Links</i>	<i>Statuses</i>	<i>Events</i>	<i>SUM</i>
<i>C1</i>	77	6	3	6	0	92
<i>C2</i>	53	18	33	61	1	166
<i>C3</i>	40	28	17	39	4	128
<i>C4</i>	88	33	28	0	2	151
<i>C5</i>	24	20	4	5	4	57
<i>C6</i>	20	18	12	11	0	61
<b>SUM</b>	<b>302</b>	<b>123</b>	<b>97</b>	<b>122</b>	<b>11</b>	<b>655</b>

Whereas all candidates prefer photo as main medium for communication with voters, usage of other activities is different among the candidates. For instance, candidates 2 and 3 prefer statuses over videos and links, whereas candidate did not post single status. There is small number of created events for each of the candidates: candidate 3 created the highest number of events – four events. Candidate 2 posted most of the content during the observed period, following candidate 3 (see Table 2). Political candidate which

were most frequent in using Facebook are second and third ranked at the elections. It is to be noted that first ranked candidate had active page only for a half of official campaign.

Candidates used almost all social media functions, but not with the same frequency. Candidates are engaged in various kinds of function with the aim to encourage citizens to participate in discussion. The harnessing of these functions can aid an effective communication between the politicians and citizens.

**Table 3.** Candidates' reach

	<b>Authors</b>	<b>Reactions</b>	<b>Shares</b>	<b>Comments</b>	<b>Commenters</b>	<b>Reactors</b>
<i>C1</i>	1	42	2	1	72	1127
<i>C2</i>	54	161	6	11	865	4508
<i>C3</i>	47	190	12	17	1082	3993
<i>C4</i>	1	115	10	7	471	2920
<i>C5</i>	1	331	55	39	1181	3384
<i>C6</i>	10	124	6	6	217	2177

In order to investigate are there statistically significant differences between candidates' activity, ANOVA was performed. Statistical test demonstrates if observed difference between the means of a parameters, is statistically significant. Analysis of variance indicated that there was a significant difference between the 8candidates' activity (Wilks' lambda = 0.5749,  $p < .005$ ). Thus, we can reject the null hypothesis of no relationship at the 0.05 level test of independence. Variables which were responsible primarily for the overall significant difference in the activities are number of reactions and number of authors.

In order to identify reach of posts we have examined reactions and posts comments. The data presented in table 3 provides a good indication that the candidates provoke reactions on the social media. Citizens are engaged by reacting, sharing and commenting posts. Candidate 2 had the largest number of individual reactors on the posts (4508), following by candidate 3 and candidate 5. Candidate 5 stands out as candidate

with highest number of average reactions, shares and comments.

This amplifies the opportunity for candidate to take advantage of the social connectedness on social media and influence the decision of followers and their friends politically. In line with the results from previous chapter that shows that a good percentage of the functions are actively accepted from citizen's. While this category did not indicate that they agree with the presented content, they chose to react on it. Under the right circumstances and with the right content, this category of people can arguably be targeted as potential voters.

A further analysis was carried out on the level of post to drill down categories of post with highest number of reactions. This is to discover the function on which the respondents are more active politically and the owners of which function are likely to cause reactions on social media politically.

**Table 4.** Top post statistics

	<i>Top post type</i>	<i>Top post reaction</i>	<i>Top post shares</i>	<i>Top post comments</i>
<i>C1</i>	Photo	283	8	16
<i>C2</i>	Link	4070	67	237
<i>C3</i>	Video	3682	286	309
<i>C4</i>	Photo	765	26	98
<i>C5</i>	Video	2134	2001	174
<i>C6</i>	Status	1295	60	48

The above result shows that the link is post with highest number of reactions, whereas video is post with highest number of shares. Video and photo are most frequent top post among candidates. The most commented post is video. It can therefore be deduced that the popularity of multimedia elements application across different spectrum makes social media phenomenon that has come to stay. This makes it necessary for politicians to explore the possibility of making use of social media.

**Table 5.** Elections score

	<i>Page likes</i>	<i>Score</i>
<i>C1</i>	11 708	30,87
<i>C2</i>	22 280	24,48
<i>C3</i>	11 008	19,14
<i>C4</i>	12089	5,6
<i>C5</i>	14092	2
<i>C6</i>	3144	1,88

Social media provides the platform for the politicians to interact, and develop connections online that can generate election success. This could provide increased, participation and drive election victory. Table 5 depicts number of pages likes and election score measured by percentage votes gained by each candidate. Raw data gives potential to explore interdependencies among activity and election results, so we have performed correlation analysis. Results are presented in table 6.

**Table 6.** Correlation analysis

	<i>Authors</i>	<i>Reactions</i>	<i>Shares</i>	<i>Comments</i>	<i>Commenters</i>	<i>Reactors</i>	<i>Top post reactions</i>	<i>Top post shares</i>	<i>Top post comments</i>	<i>Score</i>
<b>Authors</b>	-	0.09	-0.29	-0.02	0.48	0.76	0.92	-0.28	0.81	-0.35
<b>Reactions</b>	0.09	-	0.91	0.98	0.87	0.59	0.47	0.90	0.56	0.47
<b>Shares</b>	-0.29	0.91	-	0.96	0.66	0.25	0.11	0.99	0.23	0.45
<b>Comments</b>	-0.02	0.98	0.96	-	0.83	0.47	0.37	0.96	0.48	0.39
<b>Commenters</b>	0.48	0.87	0.66	0.83	-	0.85	0.77	0.64	0.88	0.12
<b>Reactors</b>	0.76	0.59	0.25	0.47	0.85	-	0.91	0.22	0.91	0.04
<b>Top post reactions</b>	0.92	0.47	0.11	0.37	0.77	0.91	-	0.12	0.93	-0.13
<b>Top post shares</b>	-0.28	0.90	0.99	0.96	0.64	0.22	0.12	-	0.22	0.40
<b>Top post comments</b>	0.81	0.56	0.23	0.48	0.88	0.91	0.93	0.22	-	-0.11
<b>Score</b>	-0.35	0.47	0.45	0.39	0.12	0.04	-0,3	0.40	-0.11	-

Table 6 examines correlations between candidates score measured as rank and social media activity seen as: number of authors on candidates' page, number of reactions, shares, comments, commenters and reactors of posts. The results indicate a statistically significant correlation among candidates' score at the elections and number of reactions, number of comments and number of top post shares. Those correlations are positive indicating that candidates with higher number of followers' reactions and comments achieved better result. There is also statistically significant, but negative correlation between candidates result and number of authors of content at the Facebook page of the candidate. Negative correlation coefficient indicates that candidates with higher number of posts achieved lower score at the elections. Top post reactions, shares and comments are highly correlated with number of overall reactions. High number of statistically significant correlations between observed variables points out the need for further investigation of relationship and indicates possible need to group these indicators in index of candidates' activity.

## 5 Conclusion

This research aims to provide insight into the use of social media in political campaigns. Politicians are attempting to connect with their target market via social media, but not all of them are gaining competitive edge from it. Literature review suggested that the concept of social media is associated with elections results and those links should be explored. Therefore, the social network activities of candidates provided a basis for the study that was carried out on the usefulness of social media in political campaigns. Analysis presented here tried to identify how politicians are taking advantage of social media. The contributions of this paper are as follows. First, this paper provides an extensive literature review on the social media for political communication. Second, based on the empirical results, high level of interest for social media based communication of political parties is identified. Results also indicated high level of interest of citizens' to engage with reactions, comments and shares. Furthermore, this study reveals that politicians are willing to engage in social media and citizens have the need to stay updated about current political situation and about politicians' reputation in social media. Social media are excellent tool to detect new trends and identify influential politicians. In Croatian context, there are yet untapped opportunities for the use of social media in politics. This could be an opportunity for the politicians to engage more via social media. As a limitation, our study focuses on Croatian politicians and only one city. In the future research should be repeated in different legislative periods and with politicians from other cities. Also, further investigation of interdependencies should be investigated by means of advanced statistical methods

and machine learning approaches. Research results must be interpreted with caution because social networks are only one part of campaigns and they are focused on specific segment of people. Deep examination of election prediction should include other groups, e.g. elder people without social media profiles.

## References

- Ahmad, N., & Popa, I. L. (2014). The social media usage and the transformation of political marketing and campaigning of the emerging democracy in Indonesia. In *Social Media in Politics*, Springer International Publishing, 97-125.
- Bond, R. M., Fariss, C. J., Jones, J. J., Kramer, A. D., Marlow, C., Settle, J. E., & Fowler, J. H. (2012). A 61-million-person experiment in social influence and political mobilization. *Nature*, 489(7415), 295-298.
- Borah, P. (2016). Political Facebook use: Campaign strategies used in 2008 and 2012 presidential elections. *Journal of Information Technology & Politics*, 13(4), 326-338.
- Boyd, D. (2010). Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications. In *Networked Self: Identity, Community, and Culture on Social Network Sites* (ed. Zizi Papacharissi), 39-58
- Buettner, R. (2016, June). Personality as a predictor of Business Social Media Usage: an Empirical Investigation of Xing Usage Patterns. In *PACIS* (p. 163).
- Chen, C. Y., & Chang, S. L. (2017). User-orientated perspective of social media used by campaigns. *Telematics and Informatics*, 34(3), 811-820.
- Christmann, S., Melcher, J., Hagenhoff, S., Stock Gissendanner, S., and W. Krumbein (2010). In *Web 2.0-Technologien in politischen Meinungsbildungsprozessen von Parteien: Ein Beispiel aus der Praxis* (Fährich, K.-P. and Franczyk, B. Eds.), 687-698, *INFORMATIK 2010 - Service Science - Neue Perspektiven für die Informatik, Band 1*, Leipzig, Germany.
- Collis, J., & Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*. Palgrave Macmillan.
- Guleria, A., Sharma, A., Bansal, D., & Sharma, G. (2016). The Impact of the Electronic Campaign by the Political Parties on the Voters, *Review of Applied Socio- Economic Research*, 7(1), 5-15.
- Hong, S., & Nadler, D. (2012). Which candidates do the public discuss online in an election campaign? The use of social media by 2012 presidential

- candidates and its impact on candidate salience. *Government Information Quarterly*, 29(4), 455-461.
- Housholder, E., & LaMarre, H. L. (2015). Political social media engagement: Comparing campaign goals with voter behavior. *Public Relations Review*, 41(1), 138-140.
- Praude, V., & Skulme, R. (2015). Social Media Campaign Metrics in Latvia. *Procedia-Social and Behavioral Sciences*, 213, 628-634.
- Rahmawati, I. (2014). Social media, politics, and young adults: the impact of social media use on young adults' political efficacy, political knowledge, and political participation towards 2014 Indonesia general election (Master's thesis, University of Twente).
- Sang, E. T. K., & Bos, J. (2012). Predicting the 2011 Dutch senate election results with twitter. In: *Proceedings of SASN 2012, the EACL 2012 Workshop on Semantic Analysis in Social Networks*, Avignon, France, 53-60.
- Schober, M. F., Pasek, J., Guggenheim, L., Lampe, C., & Conrad, F. G. (2016). Research synthesis social media analyses for social measurement. *Public Opinion Quarterly*, 80(1), 180-211.
- Sociograph, available at: <https://sociograph.io/report.html>, accessed: 25.08.2017.
- Strömbäck, J., & Esser, F. (2009). Shaping politics: Mediatization and media interventionism. In: *Mediatization: Concept, Changes, Consequences*, New York: Peter Lang Publishing Group, 2009, 205-223.
- Wright, D. K., & Hinson, M. D. (2009). An analysis of the increasing impact of social and other new media on public relations practice. In *12th annual International Public Relations Research Conference*, Miami, Florida, 1-22.