

## **STILL NOT THERE WHERE THE PEOPLE ARE<sup>1</sup>: ANALYSIS OF FACEBOOK USE BY LOCAL GOVERNMENT IN CROATIA**

**Abstract.** *This paper examines Facebook use by local municipal governments in Croatia, focusing on two aspects: municipalities' activities and citizens' engagement. Between 1 October 2016 and 30 November 2016, data from all 428 municipalities in the country were collected and analysed. The key results are that: (1) municipalities' adoption of Facebook is quite modest, with just 153 (35.75%) Croatian municipalities maintaining a Facebook page; (2) municipalities' activity on Facebook is low: during the period under observation on average all municipalities posted 0.39 (SD = 0.42) posts per working day, namely 2 posts a week; (3) citizens' engagement is generally low: the average value of popularity is significantly higher than commitment and virality, suggesting that liking is the most popular way citizens interact on Facebook. These findings suggest that Croatian municipalities should make greater efforts to embrace today's new communication tools and step into the digital arena so as to be present where the people are.*

**Keywords:** *social media, Facebook, local municipal government, engagement, Croatia*

### **Introduction**

In the last few decades, new information and telecommunication technologies have irreversibly altered the way the world communicates. The tipping point in this change was the adoption of social media as a communication tool in everyday life. In this article, we regard social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (Kaplan and Haenlein, 2010: 61). These free

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<sup>1</sup> *“To be where the people are” is a quote used by Ines Mergel (2013) in her research on social media adoption and resulting tactics by the U.S. federal government. It summarises the overwhelming reason for participating in social media.*

and easy-to-use online platforms enable Internet users to interact with other people – family, friends, business colleagues and others with whom they share similar interests – by consuming and sharing information.

*While most people are familiar with Facebook, Twitter and YouTube, these represent only a few of the hundreds of social media websites that exist with memberships from the tens to the hundreds of millions. Such sites range from public networks with very general criteria for membership to private sites catering to extremely limited interests.* (Hennessy, 2012: 16)

Among such platforms, with 1.18 billion daily active users on average in September 2016 (Facebook, 2017) and availability in 101 world languages (Facebook Translations Team, 2016), Facebook dominates the global social media landscape.

The citizen interaction possibilities enabled by this communication channel have also been recognised by governments, especially on the local level, namely the closest level of government to citizens. “Social media in general and Facebook in particular, can be a good tool to promote openness, transparency, citizen engagement and collaboration. In this way, local governments can gain reputation and trust, while reducing costs and marketing spending” (Bonsón et al., 2013: 14). Besides, social media provide local governments with the opportunity to easily reach a broader audience, primarily younger people. Namely, “as parliamentary political apathy spreads among the young, and as this particular group is supposedly prone to engaging in civic issues on various social media platforms, the use of these services could prove to be an interesting opportunity” (Larsson, 2013: 10). Finally, the “availability of a Facebook page can be considered as a symbol of modernity and responsiveness, which may be perceived as necessary for political legitimacy, especially in times of crisis” (Bonsón et al., 2013: 12).

On the other hand, there are potential risks of participating in online social media community for local municipalities, such as a low level of IT or computer literacy among citizens (Kaigo and Tkach-Kawasaki, 2015), potential misuse of personal information or a fear of legal proceedings. “Several cities have chosen to shut down their Facebook and Twitter accounts, citing fear and legal challenges or violations of open meeting or public record laws” (Hennessy, 2012: 16–17). However, it seems that the benefits outweigh the possible risks. As stated by Andy Gibson (2010):

*...not engaging now represents a far greater risk than engaging. Citizens will still use these networks to talk about you, whether you add your voice to the conversation or not. (...) Citizens will expect their council*

*to engage with them on their terms, via their channels, and to be openly available online.* (Gibson, 2010: 5)

Finally, in her research on social media adoption and the resulting tactics in the U.S. federal government, Ines Mergel (2013) established that the overwhelming reason for participating in social media can be summarised in one main goal: to be where the people are.

According to Enrique Bonsón et al. (2013), the use of Facebook by Western European local governments is today commonplace. Namely, by October 2012 almost three out of four (73%) of the 75 EU local governments had an official Facebook page (Bonsón et al., 2013). Facebook use by Croatian local governments remains unexplored. This is the first study to explore the presence, activity and engagement of Croatian municipalities on Facebook.

In line with the research by Bonsón et al. (2013 and 2014), this paper provides answers to the following research questions (RQs):

RQ1: To what extent is Facebook adopted by municipalities in Croatia?

RQ2: Are Croatian municipalities active on Facebook?

RQ3: How do citizens engage with their local government through Facebook?

RQ4: Is there a relationship between local government Facebook activity and citizens' engagement?

RQ5: Which factors influence local governments' Facebook activity levels and citizens' engagement levels?

For each research question, a set of metrics will be used with the goal to explore the use of Facebook by municipalities in Croatia. These metrics will be explained in the following text.

### ***Literature review on the relationship between local governments and social media***

A detailed literature review on the use of social media by local governments is provided by Mehmet Zahid Sobaci (2016) (see Table 1). He states that, given the impact of social media on political and social life, the number of studies concerning the relationship between social media and central government has recently expanded. However, at the local government level the situation is different.

*For example, there are hardly any books focused on the relationship between social media and local governments. Research on local government's or politician's social media use includes very few articles published in core journals and some conference papers.* (Sobaci, 2016:15)

Table 1: LITERATURE REVIEW ON THE RELATIONSHIP BETWEEN LOCAL GOVERNMENTS AND SOCIAL MEDIA

Focus	Academic studies (countries and social media tools)
Presence and use	Vaccari (2013) (Italy-Facebook, YouTube, Twitter); Avery and Graham (2013) (USA-Social media in general); Scullion (2013) (England-Twitter and Facebook); Larsson (2013) (Sweden-Facebook, Twitter, YouTube and Flickr); Mainka et al. (2014) (Various Countries-Social media in general); Panagiotopoulos and Sams (2012) (UK-Twitter); Panagiotopoulos and Sams (2011) (UK-Twitter)
Adoption and diffusion	Zheng (2013) (China-Microblog); Mundy and Umer (2012) (UK-Twitter); Omar et al. (2012) (Australia-Social media in general); Ma (2014) (China-Microblog); Oliveira and Welch (2013) (USA-Social media in general); Reddick and Norris (2012) (USA-Social media in general); Sharif et al. (2014) (Australia-Social media in general)
Communication and citizen engagement	Agostino (2013) (Italy-Facebook, Twitter and YouTube); Bonsón et al. (2013) (European Countries-Facebook); Ellison and Hardey (England-Facebook, Twitter and YouTube); Graham and Avery (2013) (USA-Facebook and Twitter); Hofmann et al. (2013) (Germany-Facebook); Lovari and Parisi (2012) (Italy-Facebook); Mossberger et al. (2013) (USA-Social media in general); Rustad and S b (2013) (Norway-Facebook)
Transparency, accountability, and participation	Schellong and Girrger (2010) (Germany-Social media in general); Bonsón et al. (2012) (European Countries- Social media in general); Ellison and Hardey (England-Facebook, Twitter and YouTube); Mambrey and Dörr (2011) (Germany-Twitter); Sobaci and Karkin (2013) (Turkey-Twitter)
Local election, campaign, and politics	Segaard and Nielsen (2013) (Norway-Blog); Segaard (2012) (Norway-Blog); Lev-On (2012) (Israel-YouTube); Ozdesim Ikez et al. (2014) (Turkey-Twitter); Criado et al. (2012) (Spain-Twitter); Skogerb and Krumsvik (2014) (Norway-Facebook and Twitter); Yannas et al. (2011) (Greece-Social media in general); Effing et al. (2013) (Holland-Social media in general); Raynauld and Greenberg (2014) (Canada-Twitter)
City planning	Evans-Cowley (2010) (USA, England and Canada-Facebook); Evans-Cowley (2010) (USA-Facebook and Second Life); Fredericks and Foth (2013) (Australia-Facebook and Twitter); Williamson and Parolin (2013) (Australia-Social media in general)
Emergency	Panagiotopoulos et al. (2014) (England-Twitter); Tyshchuk and Wallace (2013) (USA-Social media in general)

Source: Sobaci, 2016: 16.

As shown in Table 1, Sobaci (2016) reveals that most of the existing studies exploring social media use by local governments were conducted in the United States, the United Kingdom and Australia. He thus emphasises the necessity to carry out similar studies in other countries.

The need to enhance our understanding of how local municipal governments use Facebook to enhance communication with their citizens was the guiding principle behind a web-based platform that collects data on the Facebook activity of municipalities around the globe, which is accessible at <http://socialpresence.azurewebsites.net/>. Data are entered on a voluntary basis and are free for anyone wishing to analyse the dynamics of municipalities' Facebook presence. "Currently one can find data for all 265 Bulgarian municipalities in years 2014 and 2016 and for some Albanian municipalities in 2016" (Spasov and Nozcheva, 2016: 395). It remains to be seen whether this platform will yield the expected results.

In the last few years, several studies looking at the use of social media in Croatia have been carried out. Mato Brautović, Romana John and Iva Milanović-Litre (2013) conducted a quantitative content analysis of communication patterns on Facebook to show how the Croatian government uses its official Facebook page to engage with citizens. Milica Vučković and Domagoj Bebić (2013) examined how Facebook is employed by city mayors in five countries of Central (Slovenia and Hungary) and South-east Europe (Croatia, Macedonia and Bulgaria). Several studies examined social network use by political parties in Croatia. Milica Vučković (2015) studied political campaigns and the Internet during the parliamentary elections in Croatia in 2015, focusing on the presence of the strongest political parties: the Croatian Democratic Union (*Hrvatska demokratska zajednica*), the Social Democratic Party (*Socijaldemokratska partija*) and *Most nezavisnih lista* on Facebook before and after election day. The communication of Croatian and Slovenian political parties via the Internet, with special attention to social network use, was the central topic of research by Petra Koruga, Miroslav Bača and Tomislav Fotak (2012). Koruga, Petra and Miroslav Bača (2012) analysed the communication of Serbian, Croatian, Slovenian and BiH political parties on Twitter. In his study, Domagoj Bebić (2016) seeks to reveal how political parties and political candidates in Croatia use social media in election campaigns and explores and how they utilise the democratic potential of social media. Finally, Alen Delić, Petra Grd and Iva Gregurec (2013) analysed the communication of Croatian faculties with their 'fans' via Facebook.

This study contributes to the existing literature because it is the first attempt to analyse how local municipal governments in Croatia use Facebook to communicate with their citizens. Further, in line with Sobaci's (2016) recommendations, by conducting such research in a country that has

so far not been studied, it adds to knowledge on social media use by local governments in general.

### *Research design and methods*

At present, local government in Croatia is made up of 576 units: 128 towns, 428 municipalities and 20 counties. This analysis is conducted at the municipality level only. Thus, the sample contains all 428 Croatian municipalities (Appendix A).

According to Digital in 2016 (We are Social, 2016), an annual study of digital, social and mobile usage trends in 232 countries around the globe, in January 2016 there were 1.8 million (43% of all active Internet users) active social media users in Croatia. The advertising agency King Kong calculated that the total number of Facebook users in January 2017 in the country had reached 1.5 million (Marketing Magazine, 2017b). With 390,000 users, Instagram was the second most popular social network in Croatia (Marketing Magazine, 2017a). In this study, we solely look at the use of Facebook given that it dominates the Croatian social media landscape and hence “can be considered a strategic communication channel” (Bonsón et al., 2014).

For the purposes of this study, both primary and secondary data were used. The unit of analysis was the Facebook page of Croatian municipalities. The study was conducted between 1 October 2016 and 30 November 2016 during which we analysed all 428 Croatian municipalities’ Facebook use. The study was conducted in two phases. During the first phase, official websites of all 428 municipalities in Croatia were inspected to determine the existence of any links to Facebook profiles. During the second phase, the use of Facebook by each municipality during the mentioned two-month period was analysed. Municipalities’ Facebook pages were archived on 30 November 2016 using the FireShot application and PDF printouts.

Secondary data were gathered from publicly available official sources to test the influences of variables identified by previous and/or existing research. These data were gathered from the Ministry of Regional Development and EU Funds of the Republic of Croatia (average income per capita, average unemployment rate, share of educated population within total 16–65 population, development index and group according to development index), the Croatian Bureau of Statistics (number of inhabitants) and the Commission for Conflict of Interest Prevention (political leadership and gender of the head of a municipality).

In order to answer the first research question, in the first phase we explored the municipalities’ presence on Facebook. This was ascertained by visiting their websites and searching for links to their Facebook profiles.

Where such links could not be found, two steps were taken. First, to locate the Facebook page of each municipality, the search engines of Google and Facebook were used. Second, offices of the heads of municipalities were contacted by phone in order to determine the existence of their Facebook profiles. In the second phase, we studied the influence of several independent variables on the municipalities' presence on Facebook. To examine whether there is significant difference in the number of municipalities with and those without a Facebook page among Croatian counties, a contingency table was produced and the differences were examined using a chi-square test. To test whether the municipalities with or without a Facebook page differ in number of inhabitants, income per capita, share of educated population within the total 16–65 population and the development index an independent samples t-test was used. We tested differences in the gender of a municipality leader with a Chi Square test. Finally, in the third phase we searched for the number of 'fans' of each local municipal government Facebook page. "This number refers to the amount of people who have liked the examined page. Therefore, the number of fans reflects the audience of the channel" (Bonsón et al., 2014: 9).

To answer the second research question, the municipalities' Facebook profile activity was explored on the basis of the number of posts published. "Channel activity was calculated according to the number of posts by municipality and working day. This figure was obtained by counting the total number of posts in the examined month and dividing the total by the number of working days of each month" (Bonsón et al., 2013: 5).

To answer the third research question, the set of metrics to assess stakeholder engagement on Facebook pages developed by Bonsón and Ratkai (2013) and Bonsón et al. (2014) was used (Table 2).

*Based on those metrics, an aggregated index of engagement (E) was established according to the following formula:  $E = P3 + C3 + V3$ . As P3, C3 and V3 have been deflated by the number of fans, they are independent from the size of the audience and, therefore, they seem to be the more representative ones in order to measure citizen engagement.* (Bonsón et al., 2013: 5)

As seen in Table 2, stakeholder engagement can be measured using three metrics: the popularity, commitment and virality of published posts.

*Popularity is measured by likes, commitment by comments and virality depends on the amount of shares a company post receives. In this way, the level of engagement on Facebook is translated into the amount of likes, comments and shares a company receives from users.* (Kruisdijk, 2014: 14–15)

Table 2: METRICS OF ENGAGEMENT LEVEL

Name		Formula	Measures
Popularity	P1	Number of posts with likes/ total posts	Percentage of total posts that were liked
	P2	Total likes/total number of posts	Average number of likes per posts
	P3	$(P2/\text{number of fans} \cdot 1,000)$	Popularity of messages among fans
Commitment	C1	Number of posts with comments/total posts	Percentage of total posts that were commented on
	C2	Total comments/total posts	Average number of comments per post
	C3	$C2/\text{number of fans} \cdot 1,000$	Commitment of fans
Virality	V1	Number of posts with shares/total post	Percentage of total posts that were shared
	V2	Total shares/total posts	Average number of shares per post
	V3	$V2/\text{number of fans} \cdot 1,000$	Virality of messages among fans

Source: Bonsón, Royo and Ratkai (2013).

As suggested by Bonsón et al. (2013), for the fourth research question Pearson's correlations between the municipalities' Facebook profile activity and engagement variables were calculated in order to establish the relationship between municipalities' channel activity and citizens' engagement. We correlated local municipal governments' Facebook page activity (expressed as the total number of posts divided by the number of workdays in the two-month period) with the number of fans, total number of likes, comments and shares.

Finally, in order to answer the fifth research question, a correlation analysis was undertaken. We analysed the relationship between several independent characteristics of municipalities and Facebook activity and engagement levels. The municipalities' characteristics selected for this study were: number of inhabitants, average income per capita, average unemployment rate, share of educated population within total 16–65 population, and development index.

### Findings

RQ1: To what extent is Facebook adopted by municipalities in Croatia?

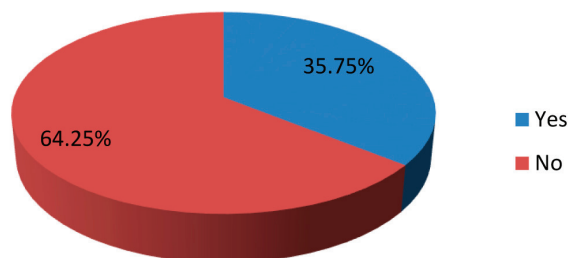
The analysis showed that, out of 428 local municipal governments in Croatia, 153 municipalities (35.75%) maintained a Facebook page in the



period under study (1 October 2016 to 30 November 2016). At the same time, the number of municipalities present on Facebook by countries varies. By comparison, according to available data 28% of Greek municipalities have a Facebook page (Triantafillidou et al., 2015). Their presence is more frequent in Sweden, reaching 42% (Larsson, 2013), in Italy 92% of municipalities had an unofficial presence and 26% of municipalities an official presence on Facebook, while 38% of Norwegian municipalities maintain Facebook pages (Volan, 2011). Finally, Bonsón et al. (2013, 2014) showed a high presence in Facebook usage within 75 European municipalities (73%). Although approaches for determining official and unofficial Facebook presence in these countries may vary, this does not alter the fact that Facebook adoption by municipalities in Croatia is quite modest.

The first appearance of a Croatian municipality on Facebook was on 15 June 2006 when the head of the Beretinec municipality, Mr. Igor Kos, launched a Facebook profile, as the official profile of the municipality (<https://www.facebook.com/opcina.beretinec>). He posted a picture of Beretinec taken from a plane. However, after this post, his Facebook profile remained inactive until 23 September 2012. As presented in Graph 1, over the following years a number of municipalities in Croatia embraced the trend and launched their own Facebook profile, most of them in 2015 and 2013.

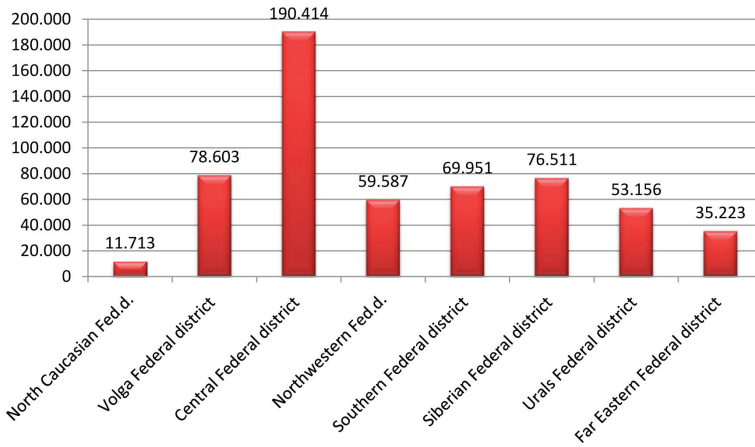
*Graph 1: CROATIAN MUNICIPALITIES ON FACEBOOK*



Source: Results of the author's research presented in this article.

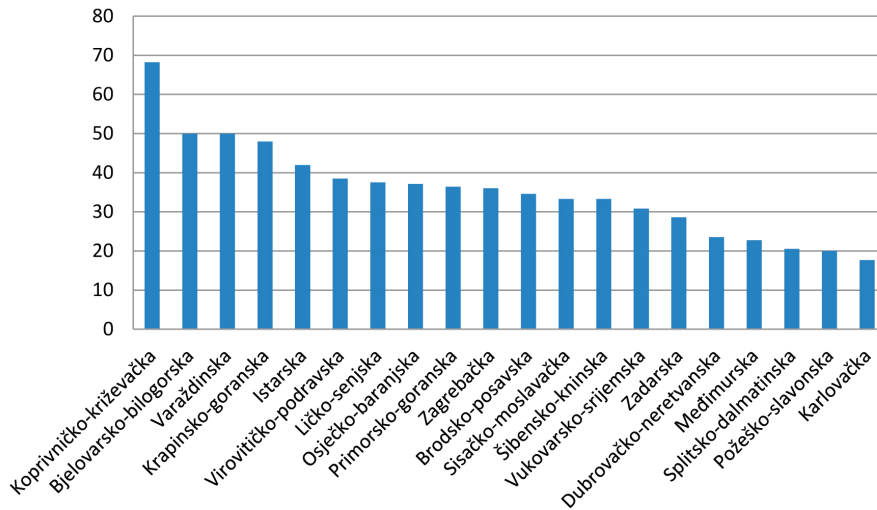
To look for significant differences in the number of municipalities with and without a Facebook page among Croatian counties, a contingency table was produced and differences were examined using a chi-square test. As shown in Graph 3, the results indicate that the counties with the biggest share of municipalities using Facebook were: Koprivničko-križevačka (68.2%), Varaždinska (50%) and Bjelovarsko-bilogorska (50%). On the other hand, counties with the smallest share of municipalities using Facebook were: Karlovačka (17.6%), Požeško-slavonska (20%) and Splitsko-dalmatinska (20.5%).

Graph 2: ADOPTION OF FACEBOOK BY CROATIAN MUNICIPALITIES  
(2006–2016)



Source: Results of the author's research presented in this article.

Graph 3: MUNICIPALITIES WITH FACEBOOK PAGES WITHIN COUNTIES



Source: Results of the author's research presented in this article.

It was shown that there is no statistically significant difference in the frequency of having a Facebook page across the municipalities ( $\chi^2 = 26.48$ ,  $df = 19$ ,  $p > 0.05$ ), and we may conclude that municipalities across different counties have similar frequencies for having a Facebook page.

To test whether municipalities with or without a Facebook page differ in the average number of inhabitants, an independent samples t-test was

used. The study found that population size does not influence the presence of a municipality on Facebook. Namely, there is no statistically significant difference in the number of inhabitants between municipalities with and those without a Facebook page ( $t=0.90$ ,  $df=426$ ,  $p>0.05$ ). It was also shown that there is no statistically significant difference between municipalities with and those without a Facebook page in terms of average income per capita ( $t=0.84$ ,  $df=426$ ,  $p>0.05$ ). In addition, there is a similar share of educated population ( $t=0.80$ ,  $df=426$ ,  $p>0.05$ ) between municipalities with and those without a Facebook page. The results also indicate that municipalities with and those without a Facebook page have a similar development index ( $t=1.38$ ,  $df=426$ ,  $p>0.05$ ). Gender of the municipality leader does not play a role in whether a municipality has a Facebook page. Municipalities ruled over by males and females have equal frequencies for having or not having an active Facebook page ( $\chi^2=0.36$ ,  $df=1$ ,  $p>0.05$ ). In summary, it was found that population-related variables (number of inhabitants, average income per capita, development index or gender of the municipality's leader) were not significantly correlated with the Facebook presence of local municipal governments.

Finally, regarding the audience of Facebook pages the average number of fans during the period that was monitored is around 884. However, the analysis indicates a certain level of heterogeneity among the collected data. With 25,836 fans, the municipality of Vir had the most fans, while the municipality of Đulovac had 27 fans, namely the lowest registered number of fans.

#### RQ2: Are Croatian municipalities active on Facebook?

In line with the research by Bonsón et al. (2013 and 2014), Facebook activity was calculated as the total number of posts divided by the total number of working days in the observed period. Our findings show 32 municipalities (20.92% of all municipalities with a Facebook page) did not post during the period under study. The total number of posts published on the remaining 121 local municipal governments' Facebook pages during the two months of data collection is 2,649. On average, all municipalities posted 0.39 (SD=0.42) posts per working day during the two-month period, which is only 2 posts a week. By comparison, in 2012 Western EU local governments posted 2.5 messages each working day (Bonsón et al., 2013 and 2014). We can thus say that the number of posts published by Croatian municipalities was particularly modest. Municipalities with the highest number of posts during the monitored period were: Plitvička jezera (83), Punat (74), Malinska-Dubašnica (73) and Bedekovčina (61) while the municipalities of Hrašćina, Veliki Bukovec, Vrpolje and Bošnjaci produced the lowest amount of content with just one post each.

Further, we examined whether Facebook page activity is related to the demographic characteristics of a certain municipality. To this end, correlations between activity and several independent variables were calculated. The results confirmed a positive correlation with the share of educated inhabitants within the 16–65 population ( $r=0.24$ ,  $p<0.01$ ), meaning that municipalities with more educated inhabitants tend to post more frequently on their Facebook page; and the municipality's development index ( $r=0.25$ ,  $p<0.01$ ), meaning that more developed municipalities tend to post more frequently. The results also suggest there is a correlation between Facebook activity and average income per capita ( $r=0.21$ ,  $p=0.009$ ), indicating that the larger the average income per capita the more frequent the Facebook activity. Moreover, Facebook activity was not significantly correlated with either the number of inhabitants living in a municipality or the number of fans. Finally, we found a negative correlation between Facebook activity and the average unemployment rate ( $r=-0.16$ ,  $p<0.0046$ ), suggesting that municipalities with a higher unemployment rate tend to post on their Facebook pages less frequently.

RQ3: How do citizens engage with their local government through Facebook?

As presented in Table 3, the average value of popularity (110.07) is significantly higher than commitment (0.60) and virality (0.95), suggesting that liking is the most popular way citizens interact online on Facebook. Namely, the percentage of posts that were liked (P1) was 70%, whereas the average number of likes per post (P2) was 73.8.

*The fact that most of the posts have been liked is an evidence that citizens find the posts made by the local government interesting and useful, but they do not show any further interest by sharing the information with friends or by engaging in dialog commenting on them. (Bonsón et al., 2013: 12)*

On the other hand, commenting on posts was a less common activity. Namely, 16% of the total posts were commented on (C2), while the average number of comments per post (C2) was 0.36. Finally, the percentage of all posts that were shared (V1) reached 19%, and the average number of shares per post (V2) was 0.55. These findings are in line with the research results of Bonsón et al. (2013) indicating that liking is the most commonly performed online interaction on Facebook.

*The fact that most of the posts have been liked is evidence that citizens find the posts made by the local government interesting and useful, but they do not show any further interest to share the information with*

*friends or engage in dialog by commenting on them. So, these findings suggest a limited interest on the part of citizens to get engaged in conversations with government. (Bonsón, 2013: 14)*

*Table 3: FACEBOOK METRICS OF POPULARITY, COMMITMENT AND VIRALITY FOR CALCULATING ENGAGEMENT*

			Mean	Std. Deviation
Popularity	P1	Percentage of total posts that were liked	0.70	0.40
	P2	Average number of likes per posts	73.80	145.88
	P3	Popularity of messages among fans	110.07	187.37
Commitment	C1	Percentage of total posts that were commented on	0.16	0.20
	C2	Average number of comments per post	0.36	0.57
	C3	Commitment of fans	0.60	1.27
Virality	V1	Percentage of total posts that were shared	0.19	0.21
	V2	Average number of shares per post	0.55	1.38
	V3	Virality of messages among fans	0.95	2.43
Engagement	P3+C3+V3		111.63	186.00

Source: Results of the author's research presented in this article.

RQ4: Is there a relationship between local municipal governments' Facebook activity and citizens' engagement?

As shown by Table 4, Facebook activity is not correlated with either the number of fans or number of likes. This interesting finding suggests that having a higher number of fans or likes does not lead to higher local municipal government activity on Facebook.

At the same time, Facebook activity is positively correlated with the total number of comments ( $r = 0.46$ ,  $p < 0.01$ ), total numbers of posts with likes ( $0.93$ ,  $p < 0.01$ ) and total number of posts with shares ( $r = 0.75$ ,  $p < 0.01$ ). Namely, the more posts a municipality published on its page, the more commented on, liked and shared these posts were. On the other hand, we found a negative correlation between Facebook activity and fans' engagement (expressed as the sum of likes, comments and shares relative to the

total number of posts and number of fans) ( $r = -0.31$ ,  $p < 0.01$ ). Accordingly, the total engagement of municipalities' webpage fans was higher among municipalities that had less Facebook activity.

*Table 4: CORRELATION ANALYSIS AMONG THE POPULARITY, COMMITMENT, VIRALITY, ENGAGEMENT VARIABLES AND MUNICIPALITIES' DEMOGRAPHIC INDICATORS*

		Number of inhabitants	Average income per capita	Average unemployment rate (%)	Share of educated population within total 16-65 population (%)	Development index (%)
<b>Popularity</b>	R	-.0390	-.0721	.0088	-.1397	-.1039
	P	p = .637	p = .382	p = .915	p = .089	p = .207
<b>Commitment</b>	R	-.0621	-.0314	-.0347	-.0318	-.0334
	P	p = .452	p = .704	p = .675	p = .700	p = .686
<b>Virality</b>	R	.1113	-.0300	.0088	.0057	-.0242
	P	p = .177	p = .717	p = .915	p = .945	p = .769
<b>Engagement</b>	R	-.0379	-.0726	.0086	-.1397	-.1043
	P	p = .647	p = .379	p = .917	p = .089	p = .205

Source: Results of the author's research presented in this article.

RQ5: Which factors influence local governments' Facebook activity levels and citizens' engagement levels?

The results of our study are presented in Table 5. They show that municipalities' demographic indices are correlated with page activity and measures of fans' participation, i.e. total numbers of likes, comments and shares. The number of inhabitants is correlated with the total number of posts with shares ( $r = 0.197$ ,  $p = 0.015$ ). Consequently, the size of a municipality proved to influence the level of local municipal government Facebook activity as well as the level of citizens' engagement on Facebook. Further, the results reveal three positive correlations. The first, between average income per capita with Facebook page activity ( $r = 0.21$ ,  $p < 0.01$ ), total number of posts with likes activity ( $r = 0.216$ ,  $p < 0.01$ ), and total number of posts with shares activity ( $r = 0.197$ ,  $p < 0.01$ ), indicating that municipalities with higher income per capita had more active Facebook pages. The second, between the share of educated population within the total 16-65 population with all observed variables, suggesting that in those municipalities with more educated inhabitants we can expect a more active Facebook page profile ( $r = 0.24$ ,  $p < 0.01$ ),

and higher participation by fans: more posts with likes ( $r=0.23$ ,  $p<0.01$ ), more comments ( $r=0.22$ ,  $p<0.01$ ) and more posts with shares ( $r=0.197$ ,  $p<0.015$ ). Moreover, the results show that development index positively influenced the level of Facebook activity of local municipal government or the level of citizens' engagement on Facebook. The higher the development index, the more we can expect higher Facebook page activity ( $r=0.25$ ,  $p<0.01$ ), more posts with likes ( $r=0.27$ ,  $p<0.01$ ), more comments ( $r=0.22$ ,  $p<0.01$ ), and more posts with shares ( $r=0.24$ ,  $p<0.01$ ).

Table 5: CORRELATION ANALYSIS AMONG THE ACTIVITY AND ENGAGEMENT VARIABLES

		Number of fans	Total number of comments	Total number of posts with likes	Total number of posts with shares	Engagement
Activity	r	.1409	.4594	.9302	.7452	-.3055
	p	p=.082	p=.000	p=0.00	p=0.00	p=.000

Source: Results of the author's research presented in this article.

Table 6: PEARSON CORRELATION AMONG THE MUNICIPALITIES' CHARACTERISTICS AND ACTIVITY AND ENGAGEMENT VARIABLES

		Activity	Total number of comments	Total number of posts with likes	Total number of posts with shares	Engagement
Number of inhabitants	r	.1056	-.0285	.1201	.1960	-0.302
	p	p=.194	p=.727	p=.139	p=.015	p=.711
Average income per capita	r	.2120	.0225	.2157	.1967	-.0673
	p	p=.009	p=.783	p=.007	p=.015	p=.409
Average unemployment rate (%)	r	-.1615	-.1293	-.1885	-.1712	.0058
	p	p=.046	p=.111	p=.020	p=.034	p=.944
Share of educated population within total 16-65 population (%)	r	.2355	.2184	.2280	.1968	-.1315
	p	p=.003	p=.007	p=.005	p=.015	p=.105
Development index (%)	r	.2540	.2240	.2720	.2434	-.1040
	p	p=.002	p=.005	p=.001	p=.002	p=.201

Source: Results of the author's research presented in this article.

At the same time, the average unemployment rate is negatively correlated with Facebook page activity ( $r = -0.16$ ,  $p < 0.046$ ), total number of posts with likes activity ( $r = -0.0189$ ,  $p = 0.02$ ), and total number of posts with shares activity ( $r = -0.17$ ,  $p = 0.034$ ), meaning that municipalities with lower unemployment tend to have more active Facebook pages. This finding is in line with the relationship of average income per capita and page activity. No other significant correlation was found.

Finally, none of the observed characteristics of municipalities are correlated with engagement, hence we are unable to explain citizens' engagement levels with local municipal governments' Facebook pages.

## Conclusion

This study explored the presence, activity and engagement of Croatian local municipal governments on Facebook, being the most popular social network in the country. Although Facebook use by local governments across the EU is now common (Bonsón, 2013), the uptake of Facebook by local governments in Croatia is still relatively slow. During the period under study, just over one-third (35.75%) of local municipal governments had a Facebook page. These findings indicate that local municipal governments have still not recognised the potential of social networking. Indeed, local municipal governments are not legally obliged to have a Facebook profile and reach out to citizens via this free and user-friendly communication tool, but as demonstrated by one-third of municipalities in Croatia it provides an opportunity to enhance communication between citizens and government.

Further, the findings of this study show that local municipal governments' activity on Facebook is quite low. Out of 153 municipalities that maintained a Facebook page, 32 were inactive, meaning they did not post any message during the observed period. On the other hand, the level of activity of the remaining 121 local municipal governments that were actually posting on Facebook was particularly low. Namely, they only posted 0.39 messages per working day in the two-month period, considerably less than in Western EU local governments.

Facebook activity level by local governments is positively related to several municipal characteristics, such as share of educated inhabitants within the 16–65 population, meaning that municipalities with more educated inhabitants tend to post more frequently on their Facebook page, and a municipality's development index, meaning that more developed municipalities tend to post more frequently. The results also suggest there is a correlation between Facebook activity and average income per capita, indicating that the larger the average income per capita the more frequent the



Facebook activity. Finally, a negative correlation between Facebook activity and the average unemployment rate was established, suggesting that municipalities with a higher unemployment rate tend to post on their Facebook pages less frequently.

Our results also show that citizens' engagement level is low. Namely, the simple action of clicking the 'like' button was the main way Croatian citizens interacted online with local municipal governments via Facebook. On the other hand, citizens were commenting on and sharing the municipalities' posts significantly less often.

We must be aware that in municipalities, especially smaller ones, most people know each other, which might somewhat limit their desire to express their true opinion by commenting on posts by their local government.

While exploring the relationship between the level of municipalities' Facebook activity and citizens' engagement level, we arrived at several interesting findings. First, a higher number of fans and likes does not result in the higher activity of local municipal governments on Facebook. Second, the total engagement level of citizens was higher among municipalities that engaged in less Facebook activity. This result indicates that greater Facebook activity by municipalities is not a precondition for citizens' higher engagement level. On the contrary, lower local government activity on Facebook leads to greater citizen activity. The explanation for such results may lie in the type of content published by municipalities, such as plain text, photos, videos or audio, which causes different levels of citizens' engagement. Namely, in her endeavour to identify features that support two-way interactions between government and citizens that may contribute to increased engagement and participation Alison Moore (2013) ascertained the "relationship between the types of content posted and Fan engagement. Pages that post significant numbers of photographs and videos generate more interaction and response from Fans" (2013: 4). According to her findings, in order to increase citizens' engagement and participation on Facebook, municipalities should pay attention to the type of content they publish and not the amount of content, in terms of the number of posts. Since content analysis was not a method used in this research, we cannot provide an explanation of why the total engagement level of citizens was higher among Croatian municipalities with less Facebook activity.

Finally, the results show that local governments' Facebook activity levels and Croatian citizens' engagement levels are positively influenced by municipalities' demographic indices, such as size of the municipality, the average income per capita, the share of educated population within the total 16-65 population, and the development index. At the same time, both local governments' Facebook activity levels and Croatian citizens' engagement levels are negatively influenced by the average unemployment rate.

In short, this study reveals the slow uptake of Facebook by Croatian municipalities, the low level of Facebook activity by local municipal governments and the citizens' low level of engagement. Bearing in mind the benefits Facebook use may bring to local government – primarily in terms of transparency, citizen engagement and cost savings – we suggest that Croatian municipalities should make greater efforts to embrace today's new communication tools, reach out to their citizens, and step into the digital arena so as to be present where the people are.

#### BIBLIOGRAPHY

- Bebić, Domagoj (2016): Cynicism on Social Media: Analysis of Citizens' Use of Facebook and Twitter in 2015 Parliamentary Elections in Croatia. 24<sup>th</sup> World Congress of Political Science, 23–28 July, 2016. Poznań, Poland.
- Bonsón, Enrique, Sonia Royo and Melinda Ratkai (2013): Analysis of European Municipalities' Facebook Channels Activity and Citizens' Engagement. Conference Paper: AECA XVII Congress, Pamplona, Spain. Accessible at [http://www.aeca1.org/pub/on\\_line/comunicaciones\\_xviiicongresoaecca/cd/84g.pdf](http://www.aeca1.org/pub/on_line/comunicaciones_xviiicongresoaecca/cd/84g.pdf) (30. 11. 2016).
- Bonsón, Enrique and Melinda Ratkai (2013): A Set of Metrics to Assess Stakeholder Engagement and Social Legitimacy on a Corporate Facebook Page. *Online Information Review* 37 (5): 787–803.
- Bonsón, Enrique, Sonia Royo and Melinda Ratkai (2014): Facebook Practices in Western European Municipalities: An Empirical Analysis of Activity and Citizens' Engagement. *Administration & Society*: 1–28.
- Brautović, Mato, Romana John and Iva Milanović-Litre (2013): Quantitative Content Analysis of Communication Patterns on Facebook: A Case Study of the Croatian Government. *Medijske Studije* 4 (8): 45–59.
- Delić, Alen, Petra Grd and Iva Gregurec (2013): Analysis of Communication of Croatian Faculties through Facebook – Part I. In Luzar-Stiffler, Vesna and Iva Jarec (eds.), *Proceedings of the ITI 2013 35<sup>th</sup> International Conference on Information Technology Interfaces*, 43–48. Croatia: University of Zagreb. University Computing Centre.
- Ernest, Ester and Bernard Ronald (2015): Investigating Public Universities Facebook Pages: Extent of Users Engagement. *International Journal of Academic Library and Information Science* V, 3 (2): 31–36. Accessible at <http://www.academicresearchjournals.org/IJALIS/PDF/2015/February/Ernest%20and%20Ronald.pdf> (30. 12. 2016).
- Gibson, Andy (2010): *Local by Social: How Local Authorities Can Use Social Media to Achieve More for Less*. London: IDEa. Accessible at [https://www.nesta.org.uk/sites/default/files/local\\_by\\_social.pdf](https://www.nesta.org.uk/sites/default/files/local_by_social.pdf) (5. 2. 2017).
- Hennessy, Kevin S. (2012): Are City Governments and Social Media a Good Match? *Quality Cities Magazine*: 16–19. Accessible at [http://www.llw-law.com/wp-content/uploads/2016/04/Social\\_Media\\_-\\_Quality\\_Cities\\_Jan-Feb\\_2012\\_00067204.pdf](http://www.llw-law.com/wp-content/uploads/2016/04/Social_Media_-_Quality_Cities_Jan-Feb_2012_00067204.pdf) (8. 1. 2017).
- Kaigo, Muneo and Leslie Tkach-Kawasaki (2015): *Social Media for Enhancing Civil*

- Society and Disaster Relief: Facebook Usage by Local Municipalities in Japan. *JeDEM - eJournal of eDemocracy and Open Government* 7 (1): 1-22.
- Kaplan, Andreas M. and Michael Haenlein (2010): Users of the World, Unite! The Challenges and Opportunities of Social Media. *Business Horizons* 53: 59-68. Accessible at <http://michaelhaenlein.eu/Publications/Kaplan,%20Andreas%20-%20Users%20of%20the%20world,%20unite.pdf> (16. 1. 2017).
- Koruga, Petra, Miroslav Bača and Tomislav Fotak (2012): Comparison of Communication of Political Parties over the Internet in Slovenia and Croatia. In Jakšić, Maja Levi and Slađana Barjaktarović Rakočević (eds.), *SYMORG Innovative Management and Business Performance*. Beograd: Faculty of Organizational Sciences.
- Koruga, Petra and Miroslav Bača (2012): Communication of Political Parties on Twitter: Comparison of Political Parties in Serbia, Croatia, Slovenia and BiH. In Levi-Jakšić, Maja and Slađana Bajraktarović Rakočević (eds.), *Proceedings of the XIII International Symposium SymOrg 2012: Innovative Management and Business Performance*, 408-416. Belgrade: Faculty of Organisational Sciences.
- Kruisdijk, Floor (2014): Stakeholder Relationship Management on Facebook. The Communication Strategies of Fifteen Fortune Global 500 Companies. Master Thesis. Master Media Studies - Media & Business. Erasmus School of History, Culture and Communication. Erasmus University Rotterdam. Accessible at <https://thesis.eur.nl/pub/17668> (29. 1. 2017).
- Larsson, Anders Olof (2013): Bringing It All Back Home? Social Media Practices By Swedish Municipalities. Paper accepted for publication in *European Journal of Communication*. Accessible at [http://www.andersoloflarsson.se/wp-content/uploads/2013/05/Larsson\\_EJOC\\_Social-media-practices.pdf](http://www.andersoloflarsson.se/wp-content/uploads/2013/05/Larsson_EJOC_Social-media-practices.pdf) (11. 1. 2017).
- Maretić, Meri, Josipa Caktaš and Zvonimir Mimica (2013): Komunikacijski aspekti službenih web stranica gradova Splitsko Dalmatinske županije. *Medianali* 14: 39-54. Accessible at <http://hrcak.srce.hr/148350> (5. 1. 2017).
- Mergel, Ines (2013): Social Media Adoption and Resulting Tactics in the U.S. Federal Government. *Government Information Quarterly* 30: 123-130.
- Moore, Allison (2013): Looking Beyond Likes: Increasing Citizen Engagement with Government, Facebook Pages. Accessible at <http://www.mpa.unc.edu/sites/www.mpa.unc.edu/files/Allison%20Moore.pdf> (28. 3. 2017).
- Sobaci, Mehmet Zahid (2016): Preface. In Mehmet Zahid Sobaci (ed.), *Social Media and Local Governments: Theory and Practice*, v-vi. Springer: Cham, Heidelberg, New York, Dordrecht and London.
- Spassov, Kamen and Evelina Nozcheva (2016): A Platform to Research Presentation of Municipalities in Social Networks. In Hans Jochen Scholl, Olivier Glassey, Marijn Janssen, Bram Klievink, Ida Lindgren, Peter Parycek, Efthimios Tambouris, Maria Wimmer, Tomasz Janowski, Delfina Sá Soares (eds.) (2016): *Electronic Government and Electronic Participation Joint Proceedings of Ongoing Research, PhD Papers, Posters and Workshops of IFIP EGOV and ePart 2016*, 394-398. IOS Press: Amsterdam, Berlin, Washington, DC.
- Vučković, Milica and Domagoj Bebić (2013): Facebook Usage by Mayors in Central and Southeastern Europe. *Medijske Studije* 4 (8): 32-44.

- Vučković, Milica (2015): Političke kampanje i internet na parlamentarnim izborima u Hrvatskoj 2015. godine. *Političke analize* 6 (24): 19–22.
- Wang, Yuanquiong and Gabriele Meiselwitz (2015): Media and Higher Education: A Literature Review. In Gabriele Meiselwitz, *Social Computing and Social Media: 7<sup>th</sup> International Conference, SCSM 2015*, 96–104. Springer International Publishing, Switzerland: Springer.

## SOURCES

- Facebook (2017): Company Info. Stats. Accessible at <http://newsroom.fb.com/company-info/> (12. 1. 2017).
- Facebook Translations Team (2016): Profile. Accessible at <https://www.facebook.com/FacebookTranslationsTeam/> (26. 1. 2017).
- Marketing Magazine (2017a): There are 390,000 Instagram Users in Croatia. Published on 9 January 2017. Accessible at <http://marketingmagazin.eu/2017/01/09/king-kong-agency-calculated-number-instagram-users-croatia/> (5. 2. 2017).
- Marketing Magazine (2017b): There are 1,5 million Facebook Users in Croatia. Published on 23 January 2017. Accessible at <http://marketingmagazin.eu/2017/01/23/15-million-facebook-users-croatia/> (5. 2. 2017).
- Volan, Ingeborg (2011): Norway: Almost 40 Percent of Municipalities Use Facebook. Accessible at: <https://socialmedianordic.wordpress.com/2011/09/09/norway-almost-40-percent-of-municipalities-use-facebook/> (3. 2. 2017).
- We are Social (2016): Digital in 2016. Accessible at <http://www.slideshare.net/wearesocialsg/2016-digital-yearbook> (3. 2. 2017).

## APPENDIX

Municipality	Number of inhabitants	Average income per capita	Average unemployment rate (%)	Share of educated population within total 16–65 population (%)	Development index (%)	Group according to the development index	Facebook
Bedenica	1432	20722	11	66,14	79,01	III.	1
Gradec	3681	19197	13,1	61,02	74,26	II.	1
KlinčaSela	5231	23456	6,7	75,7	94,93	III.	1
Kravorsko	1987	25754	14,4	66,77	86,06	III.	1
Luka	1351	24344	15,1	68,26	85,5	III.	1
Pisarovina	3689	26052	8,3	61,3	94,6	III.	1
Pokupsko	2224	19385	14,3	57,52	70,43	II.	1
Preseka	1448	15726	17,2	44,68	58,08	II.	1
Rakovec	1252	14836	23,9	53,87	55,13	II.	1
Bedekovčina	8041	24078	13,2	67,8	82,9	III.	1
Budinskičina	2503	19402	13,1	58,23	70,9	II.	1
Desinić	2933	17501	16,6	54,57	63,25	II.	1
GornjaStubica	5284	20562	16	63,17	73,38	II.	1
Hrašćina	1617	20422	10	65,96	76,83	III.	1
Jesenje	1560	21015	17,7	65,57	75,22	III.	1

Municipality	Number of inhabitants	Average income per capita	Average unemployment rate (%)	Share of educated population within total 16–65 population (%)	Development index (%)	Group according to the development index	Facebook
Konjščina	3790	27078	10,2	76,62	92,09	III.	1
KraljevecnaSutli	1727	22301	14	61,74	77	III.	1
Kumrovec	1588	24002	18,1	70,43	79,07	III.	1
Lobor	3188	18275	11,4	66,19	72,13	II.	1
Radoboj	3387	23736	13,1	71,53	82,99	III.	1
Tuhelj	2104	25419	16	65,3	84,26	III.	1
Gvozd	2970	13621	49,2	56,61	30,21	I.	1
Lipovljani	3455	23058	17,8	69,06	81,9	III.	1
Majur	1185	18220	32,9	60,14	51,91	II.	1
VelikaLudina	2625	19877	22,6	62,65	92,75	III.	1
Josipdol	3773	23332	20,5	70,8	66,61	II.	1
Krnjak	1985	9337	38	60,37	39,62	I.	1
Vojnić	4764	10841	39	52,5	38,23	I.	1
Brinje	3256	17569	22,3	54,72	60,35	II.	1
Lovinac	1007	21305	19,2	73,51	92,35	III.	1
PlitvičkaJezerza	4373	25506	11,5	74,37	78,66	III.	1
Beretinec	2176	24699	12,3	70,43	83,99	III.	1
Breznički Hum	1356	21871	10,3	62,1	78,56	III.	1
Cestica	5806	13499	16,8	65,85	66,14	II.	1
GornjiKneginec	5349	27414	12,9	73,84	93,96	III.	1
Klenovnik	2022	22721	16,2	68,42	76,71	III.	1
Petrijanec	4812	19263	14,1	64,34	75,43	III.	1
Sračinec	4842	23114	12,6	72,1	84,76	III.	1
Svetilija	3511	23374	12,6	75,68	84,4	III.	1
Veliki Bukovec	1438	25189	8,4	57,7	82,31	III.	1
Vidovec	5425	21717	12,3	67,68	79,53	III.	1
Vinica	3389	21927	15,2	74,73	80,25	III.	1
Đelekovec	1533	23525	13,2	60,24	76,89	III.	1
Ferdinandovac	1750	15383	27	53,76	60,98	II.	1
Gola	2431	14575	17,3	39,45	72,43	II.	1
Gornja Rijeka	1779	11935	19,7	47,41	51,89	II.	1
Hlebine	1304	17781	18	49,33	63,64	II	1
Kalinovac	1597	19941	22,9	64,61	98,97	III.	1
KloštarPodravski	3306	13365	29,6	46,01	47,69	I.	1
KoprivničkiBregi	2381	20616	17,5	58,93	70,33	II.	1
Legrad	2241	18179	13,5	53,66	69,84	II.	1
Molve	2189	14541	21,3	45,97	96,63	III.	1
Novigrad Podravski	2872	19369	17,6	61,04	79,09	III.	1
Novo Virje	1216	10833	25,1	40,24	50,83	II.	1
PodravskeSesvete	1630	13863	22,5	48,02	77,64	III.	1
Rasinja	3267	16221	18,2	52,88	61,06	II.	1
Virje	4587	16887	22,8	58,67	67,49	II.	1
Đulovac	3245	16305	41,9	36,51	35,39	I.	1
Hercegovac	2383	20424	18,6	63,93	69,94	II.	1

Municipality	Number of inhabitants	Average income per capita	Average unemployment rate (%)	Share of educated population within total 16–65 population (%)	Development index (%)	Group according to the development index	Facebook
Ivanska	2911	14855	26,3	49,7	51,66	II.	1
Nova Rača	3433	14407	33,3	52,59	46,28	I.	1
Rovišće	4822	14843	34,9	55,64	46,41	I.	1
Sirač	2218	19441	19,9	66,46	71,28	II.	1
VelikaPisanica	1781	13647	22,8	49,63	51,2	II.	1
Veliki Grdevac	2849	17894	31	56,2	54,13	II.	1
VelikoTrojstvo	2741	17762	26,2	55,51	63,7	II	1
Čavle	7220	29475	14	81,91	101,2	IV	1
Fužine	1592	33103	12,3	77,06	111,49	IV.	1
Jelenje	5344	28578	13,6	78,28	97,87	III.	1
Lokve	1049	30294	12,1	78,84	108,09	IV.	1
Malinska-Dubašnica	3134	28743	6,8	86,33	147,12	V.	1
Matulji	11246	33071	11,2	86,97	111,91	IV.	1
Omišalj	2983	36204	8,9	85,58	146,61	V.	1
Punat	1973	31330	7,8	85,57	135,75	V.	1
Čačinci	2802	19691	23,1	68,05	65,2	II	1
Nova Bukovica	1771	15538	37,6	57,6	47,35	I.	1
Sopje	2320	13304	35,9	46,03	43,04	I.	1
ŠpišićBukovica	4221	13361	28	46,24	48,25	I.	1
Zdenci	1904	18400	25,6	63,5	63,36	II	1
Kaptol	3472	14571	23,3	59,63	57,67	II.	1
Bukovlje	3108	15085	26,1	71,19	68,57	II.	1
Davor	3015	15113	27,4	53,02	53,6	II.	1
DonjiAndrijevci	3709	17538	23,1	67,08	63,88	II	1
Gornja Vrba	2512	14083	26,6	66,89	62,11	II.	1
Gundinci	2027	12050	25,7	44,65	47,99	I.	1
Okučani	3447	12613	47,1	56,2	34,12	I.	1
Oprisavci	2508	17052	24,8	58,11	59,62	II.	1
VelikaKoponica	3308	13649	23,9	53,2	54,02	II.	1
Vrpolje	3521	15213	23,4	58,53	59,52	II.	1
Gračac	4690	17932	33,1	66,23	58,17	II.	1
Kolan	791	21103	9,1	80,04	132,19	V.	1
Pašman	2082	19401	11,8	76,49	94,46	III.	1
Preko	3805	24334	9,6	69,96	101,91	IV	1
Sukošan	4583	21026	18,5	76,1	85,04	III.	1
Sveti Filip iJakov	4606	21045	12,7	71	87,17	III.	1
Tkon	763	19820	9,5	68,4	98,69	III.	1
Vir	3000	13275	19,2	75,88	147,88	V.	1
Antunovac	3703	23863	18,6	69,7	70,12	II.	1
Bilje	5642	24505	20	69,94	73,79	II.	1
Bizovac	4507	20930	22,6	68,48	72,08	II.	1
Čepin	11599	22591	20,3	73,7	77,36	III.	1
Jagodnjak	2023	13824	42,3	51,41	43,87	I.	1
KneževiVinogradi	4614	19963	31,3	60,04	60,55	II.	1

Municipality	Number of inhabitants	Average income per capita	Average unemployment rate (%)	Share of educated population within total 16–65 population (%)	Development index (%)	Group according to the development index	Facebook
Magadenovac	1936	16312	26,7	54,96	68,52	II.	1
Petlovac	2405	20528	31,2	56,83	59,32	II.	1
PodravskaMoslavina	1202	13201	29,5	54,17	49,45	I.	1
Punitovci	1803	16056	26,7	56,87	58,8	II.	1
Semeljci	4362	16132	21,5	56,76	60,82	II.	1
Strizivojna	2525	15347	25	56,56	56,79	II.	1
Vladislavci	1882	17352	26,2	53,74	57,68	II.	1
Konavle	8577	34616	9,6	84,61	105,34	IV	1
Kula Norinska	1748	18558	22,3	75,29	72,46	II.	1
Mljet	1088	23901	9,5	80,09	99,73	III.	1
Vela Luka	4137	22937	17,3	80,59	86,94	III.	1
Murter-Kornati	2044	19823	8,8	84,13	102,71	IV.	1
Pirovac	1930	18340	15,6	74,98	90,95	III.	1
Primošten	2828	23552	13	81,6	111,18	IV.	1
Promina	1136	20596	15,1	75,14	74,36	II.	1
Tisno	3094	21256	12,3	78,07	101,42	IV.	1
Andrijaševci	4075	19965	22	66,7	70,05	II.	1
Borovo	5056	15901	33,7	68,17	53,42	II.	1
Bošnjaci	3901	14829	35,8	58,22	50,12	II.	1
Cerna	4595	16870	27,6	62,78	60,84	II.	1
StariJankovci	4405	17592	27,6	62,14	62,03	II	1
StariMikanovci	2956	17671	33,9	65,28	56,15	II.	1
Štitar	2129	12015	36,4	55,51	44,27	I.	1
Tompojevci	1565	19650	26,9	58,31	57,42	II.	1
Bol	1630	28424	8	85,41	136,25	V.	1
Dugi Rat	7092	23476	17,1	82,06	89,28	III.	1
Gradac	3261	16285	12,4	85,63	90,77	III.	1
Klis	4801	21812	18,2	79,59	86,93	III.	1
Marina	4595	19953	19,9	68,27	83,92	III.	1
Milna	1034	22200	12,3	73,97	108,52	IV.	1
Nerežišća	862	21859	13,3	68,36	96	III.	1
Šolta	1.700	25165	18,9	80,95	116,13	IV.	1
Barban	2721	33016	7,1	81,3	107,36	IV.	1
Brtonigla-Verteneglio	1626	25031	5,5	67,21	112,85	IV.	1
Gračiće	1419	26487	5,5	72,51	94,16	III.	1
Ližnjan-Lisignano	3965	26184	7,3	84,87	122,82	IV.	1
Medulin	6481	31343	6,1	89,4	142,67	V.	1
Motovun-Montona	1004	21153	11	64,6	88,42	III.	1
Oprtalj-Portole	850	22094	5,2	65,16	92,84	III.	1
Svetvinčenat	2202	30052	6,7	78,46	105,32	IV.	1
Tinjan	1684	28334	7,5	71,89	99,22	III.	1
Višnjan-Visignano	2274	27468	5,1	72,46	105,72	IV.	1
Vižinada-Visinada	1158	26167	5,1	69,82	99,41	III.	1
Vrsar-Orsera	2162	30993	6,1	78,1	131,26	V.	1

Municipality	Number of inhabitants	Average income per capita	Average unemployment rate (%)	Share of educated population within total 16–65 population (%)	Development index (%)	Group according to the development index	Facebook
Žminj	3483	31838	5	78,6	106,53	IV.	1
DonjiKraljevec	4659	20994	10,4	73,15	82,28	III.	1
Goričan	2823	21658	12,1	68,67	80,04	III.	1
Orehovica	2685	11904	24,8	47,43	51,45	II.	1
Sveti Martin na Muri	2605	17588	13,2	66,65	75,25	III.	1
Šenkovec	2879	27228	10,9	81,27	100,18	IV.	1

Source: Ministry of Regional Development and EU Funds (2014).