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Lenka Vochocová, Václav Štětka \& Jaromír Mazák

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# Good girls don't comment on politics? Gendered character of online political participation in the Czech Republic 

Lenka Vochocováa, Václav Štětka ${ }^{\text {a }}$ and Jaromír Mazák ${ }^{\text {a,b }}$<br>${ }^{\text {ad Department of Media Studies, Institute of Communication Studies, Faculty of Social Sciences, Charles }}$ University in Prague, Smetanovo nabrezi 6, 11000 Prague, Czech Republic; ${ }^{\text {b }}$ Department of Sociology, Faculty of Arts, Charles University in Prague, nam. Jana Palacha 1/2, 11638 Prague, Czech Republic


#### Abstract

The article aims to contribute to the still relatively unexplored area of the relationship between gender and online political participation. Using two complementary methods - a representative, postelection survey of the adult Czech population and a content analysis of communication on the selected Czech political parties' Facebook profiles during the campaign for the 2013 Parliamentary Elections we attempt to challenge some established assumptions regarding the allegedly equalizing effect of the Internet and social media on participatory behaviour of men and women. While survey data discovered subtle yet statistically significant differences between men and women in some online expressive activities on Facebook, mainly commenting on other users' statuses, content analysis further revealed that there are not only notable gender gaps among the Facebook users who commented on the campaign, but also differences in the tone of communication produced by the respective gender groups, with men posting more negative comments addressed to parties as well as to other Facebook users. We suggest that these results question the prevailing perception about the narrowing of the 'gender gap' in the online environment and call for a more nuanced methodological approach to different forms of online political expression.


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online political participation; gender; election campaigns; Facebook; survey; content analysis

## Introduction

After decades of academic consensus formed since the 1970s about the generally lower participation of women in politics (Burns, Schlozman, \& Verba, 1997; Gallego, 2007; Lutz, Hoffmann, \& Meckel, 2014; Norris, 2002), recent studies of political participation suggest that some of the traditional factors influencing the citizen's participation dwindle in importance in liberal democratic countries, gender undoubtedly being one of them (Gil de Zúñiga, Puig-I-Abril, \& Rojas, 2009; Vesnic-Alujevic, 2012; Vráblíková, 2009). In this respect, patterns seem to be equal for both traditional Western democracies and the former Eastern bloc. According to Vráblíková (2009), who focused on post-socialist countries in Central and Eastern Europe, 'there is no difference in the degree of political participation based on the factor of sex in most of the monitored countries' (p. 885) with a few relatively unimportant exceptions.

The assumption about the declining impact of gender on political participation seems to be commonplace within research on online participation as well. Overall there seems to be a significant lack of studies exploring online political participation specifically from the gender perspective. Those who mention the relationship between gender and political participation of the Internet users usually reject the traditional view that women participate less than do men in general (Gil de Zúñiga, Veenstra, Vraga, \& Shah, 2014; Lutz et al., 2014; Strandberg, 2013). Among those including gender as a control variable, no general agreement has been achieved concerning gendered patterns of the Internet use for political reasons. Whereas some previous texts claimed that although in 'classical', offline forms of political participation, gender is no longer considered an important factor, 'the Internet participation [is still] headed by males' (Weber, Loumakis, \& Bergman, 2003, p. 36), recent studies have either proposed that both sexes are represented equally in political communication on social network sites (Vesnic-Alujevic, 2012) or even found out - much to their own surprise - that women appear to participate online more than do men (Gil de Zúñiga, Veenstra et al., 2014; Strandberg, 2013). Nevertheless, most studies typically stress the necessity of a deeper investigation into the gendered patterns of political participation (both offline and online), aimed at revealing the interplay of gender and other factors. According to many, there are structural, institutional, cultural, social and economic constraints as well as personal characteristics influencing gender equality in political participation (Correa, Hinsley, \& Gil de Zúñiga, 2010; Harrison \& Munn, 2007; Hughes, Rowe, Batey, \& Lee, 2012; Joiner et al., 2014) and 'gender matters differently depending on the type of participation' (Gil de Zúñiga, Veenstra, et al. 2014, p. 46).

Given the overall low number of studies on gender aspects of online political participation, it is no surprise that such scholarship is virtually absent in the Czech Republic, a post-transformation country whose history of both the gender issues and the political participation has been affected by patterns and legacies shared with other countries in the region. The generally lower political engagement of citizens observed nowadays in the post-socialist countries has often been linked to the tradition of de facto obligatory public engagement under the socialist regime (Vráblíková, 2009), which is considered to have led to gradual decline in voter turnout and overall political apathy after the transformation to democracy. The Czech Republic is a typical example of this trend (Linek, 2013), just as it is illustrative of the fact that despite the pressure for public engagement which applied to both sexes during the socialist period, women's presence in the domain of 'official' politics has always been rather marginalized, and their access to decision-making positions restricted. According to the report of the Inter-Parliamentary Union (2014), the share of women in the Parliament in the Czech Republic (19.5\%) is below the average both in the European (24.6\%) and global (21.8\%) contexts. Even when compared to other Central and Eastern European countries, women's participation in the top-level politics in the Czech Republic is among the lowest, with only Hungary, Romania and the Slovak Republic displaying a smaller share of female parliamentarians. In light of such evidence, it is appropriate to ask whether online participation in the Czech Republic somehow mirrors those gender imbalances in the sphere of institutional politics; in other words, we propose to examine whether there are any gender gaps in the way Czech men and women engage with politics online, particularly in the social network site (SNS) environment. Taking the above-mentioned lack of research in this particular area as an additional reason to pursue such line of enquiry, this article aims to explore
the relationship between gender and online political participation in the Czech Republic. Our study has been driven by the following main research question: Are there any gender differences in the intensity and character of online political participation among the Czech SNS users? In order to answer this question we adopted a multi-method approach combining two complementary methods - a representative, post-election survey of the adult Czech population and a content analysis of communication on the selected Czech political parties' Facebook profiles during the campaign for the 2013 Parliamentary Elections.

## The gendered character of traditional and online political participation

The feminist perspective on political participation has often been concerned with how the societal distribution of status, roles and power as well as the very definition of politics affects participation of certain groups - women, ethnic minorities, people with a lower socio-economic status, etc. (Bourque \& Grossholtz, 1974). The argument that the 'narrow and exclusive definition of politics [...] limits political activity to a set of roles which are [ ...] stereotyped as male' (Bourque \& Grossholtz, 1974, p. 225) belongs to a much wider field of the feminist critique of 'separate spheres' (Lorber, 1998; McLaughlin, 1993; Young, 1981) and of women's exclusion from the public sphere. Bourque and Grossholtz (1974) were surprised in 1974 by the gender blindness of participation research that is, by how little women used to be mentioned in studies of political participation. Looking at the state of research on online political participation 40 years later, it is almost a déjà vu moment, though the reasons might of course be very different. For Harrison and Munn (2007), the fact that survey-based research usually finds little difference between men and women in their levels of political participation may indeed be related to the fact that structural barriers influencing access to participatory mechanisms are weakening. Nevertheless, this does not mean gender should be dismissed as an explanatory factor altogether, as it can still illuminate us about 'the social and cultural expectations that establish expected standards of political participation' (p. 43).

In their comparative study of political participation in 18 Western democracies, Coffé and Bolzendahl (2010) concluded that, contrary to a traditional view, women do not participate less, they just engage in different types of political participation than do men. Their approach is a typical example of recent participation discourse emphasizing the gender perspective, stressing the importance of other variables influencing the gender factor the authors admit that the gender difference in political participation does exist but it is relatively unimportant in comparison to education, age, race or socio-economic situation of the individual. According to their data, women are more likely to vote and are more active in the area of 'private activism', the less formal political activities such as boycotting goods, signing petitions, donating money, etc. Men, on the other hand, are more active in a direct contact, in collective action and in formal, institutionalized politics (e.g. membership in political parties). Women also participate less visibly and are less likely to publicly share their political opinion. An earlier British study on women's political participation (Norris, Lovenduski, \& Campbell, 2004) came to a similar conclusion - women are even more active than men with regards to 'cause oriented' activities such as signing petitions or boycotting products, but they are much less likely to be active in 'campaign oriented activities' (Norris et al., 2004) such as contacting politicians, working for them or being a member of a political party.

The intersection of gender and other factors is an important part of the traditional explanations of the 'gender gap' in political participation. Bourque and Grossholtz (1974) stated already in 1974 that a clear causal relationship exists between the social roles of women and their political participation. More recent research comes to a very similar conclusion: political participation should be studied as a gendered action influenced by the individual's socialization, access and opportunities, which can explain different participation patterns among men and women. Women's access to socio-economic resources (such as full-time job opportunities) is usually more difficult, they are less politically informed and less interested in politics, and are perceived or even perceive themselves as less politically effective (Coffé \& Bolzendahl, 2010; Lutz et al., 2014; Norris et al., 2004; Vráblíková, 2009), although gender differences in participation may be weakening with higher education and income (Norris et al., 2004). Polletta and Chen (2013) connect lower political activity of women in terms of their 'public talk' to the gendered character of politics and the 'gendered character of the institutional settings in which public talk takes place' (p.292) and conclude that 'most sites of public talk are masculine' and that women are often seen as incapable of the kind of talk required in these forums (p. 294).

Given the high volume of studies on gender and traditional political participation, it is surprising that empirical research specifically examining gender aspects of online political participation is still relatively rare. Most studies tend to deal with gender merely as a control variable rather than building the entire design around it. Such studies typically do not indicate significant differences between men and women in the way they participate online. If anything, some evidence - howsoever scattered and methodologically diverse even points to the other direction, with women possibly being more actively engaged with politics via SNSs than men (Gil de Zúñiga, Veenstra et al., 2014; Strandberg, 2013). ${ }^{1}$ This is in line with research on general online activity, which does not support the notion of women's marginalization and points out that women seem to be slightly more active social media users than men (Gil de Zúñiga, Veenstra et al., 2014; Hampton, Sessions Goulet, Rainie, \& Purcell, 2011; Junco, 2013; Strandberg, 2013; Vesnic-Alujevic, 2012). Studies looking at the gender differences in online participation from a psychological perspective may also be useful for studying the gender aspects of online political engagement; they confirm a broadly shared assumption that women tend to use SNSs (and Internet in general) for communication purposes and for building relationships more often than men (Junco, 2013; Lin \& Lu, 2011; see Joiner et al., 2014 for a similar conclusion). This translates in women being more active in posting, tagging and viewing photos, commenting on content, posting status updates, sending private messages and friend requests (Junco, 2013).

In the Czech Republic, which forms the empirical context for our research, the few studies exploring the relationship between gender and political participation suggest that gender differences are dwindling (Linek, 2013; Lupač, Chrobáková, \& Sládek, 2014; Vráblíková, 2009). In case some differences still occur, researchers focus predominantly on structural explanations and the intersection of various structural factors. Linek (2013), for example, finds out that age has different impact on men and women as concerns their voting behaviour. With the predominant focus on traditional forms of participation such as voting, joining a political party or taking part in demonstrations, research on online political engagement has only very recently started to develop in the Czech
academic environment (Šerek \& Macháčková, 2014; Štětka \& Mazák, 2014). Needless to add, this research has not addressed the issue of gender, creating thereby an incentive for a systematic enquiry which would shed light on the influence of gender on online participation in the Czech Republic.

## Gender and online political expression in the SNS environment: building hypotheses

Research on online political participation has been growing exponentially in the last several years (Boulianne, 2009; Enjolras, Steen-Johnsen, \& Wollebæk, 2013; Gibson \& Cantijoch, 2013; Gil de Zúñiga, Molyneux, \& Zheng, 2014; Gustafsson, 2012; Holt, Shehata, Strömbäck, \& Ljungberg, 2013; Junco, 2013; Rojas \& Puig-i-Abril, 2009; Strandberg, 2013; Vitak et al., 2011). However, the comparability of results remains limited, given the variety of approaches to the very concept of online political participation as well as differences in measurements, samples and methods used to investigate it empirically. The arrival of social network sites has arguably broadened the repertoire of online platforms and forms of political engagement; at the same time, it has brought a challenge for researchers to distinguish between qualitatively different levels of engagement and participation based on particular types of online action. In response to this challenge, the concept of online political expression, or 'e-expressive mode of participation' (Gibson \& Cantijoch, 2013), described as 'the public expression of political orientations' (Rojas \& Puig-i-Abril, 2009, p. 906), has been recently coined to describe activities such as 'liking', posting or sharing politically relevant comments or other type of political content, befriending or following politicians and candidates on social media, and particularly on Facebook (Gil de Zúñiga, Jung, \& Valenzuela, 2012; Gil de Zúñiga, Molyneux, \& Zheng, 2014; Rojas \& Puig-i-Abril, 2009).

However, while most of the time, the particular indicators of e-expressive political behaviour are treated as complementary and often bundled together in a form a summary index (Gil de Zúñiga, Molyneux, \& Zheng, 2014), it is possible to ask whether this homogenizing approach might obscure internal variations among such expressions. Clicking on the 'Like' button is a far more prevalent action on Facebook than commenting (Gerlitz \& Helmond, 2013; Vitak et al., 2011), which can be related to the fact that placing a comment on someone's wall requires arguably more effort and interest in the particular case than just giving a 'thumb up'. Apart from that, commenting also makes the author more publicly visible, distinguishing thereby between those users who seek visibility and those who do not. Psychological research on online behaviour suggests that these differences are related to the users' gender; for example, whereas in private Facebook communication (e.g. sending private messages) there is no significant gender difference, this is not the case for public online communication in this particular SNS, such as commenting on other people's posts (Joiner et al., 2014; Junco, 2013; Lin \& $\mathrm{Lu}, 2011)$. According to Junco (2013), women tend to take part in activities connecting them to others more frequently, typically in expressive online activities such as posting, tagging photos, commenting on other people's content, sending private messages, etc. (p. 2333). On the other hand, Joiner et al. (2014) found out that there is a significant difference in women's private and public online communication. They support others emotionally significantly more than men do, but only in relation to public comments or replies. In private (publicly non-visible) messages this gender difference 'virtually disappeared'
(p. 167) which may indicate that women prefer certain forms of public online communication stereotypically perceived as more appropriate to women (p. 166). Polletta and Chen (2013) explicitly define 'public deliberation' or 'public political talk' as masculine and as 'favoring men over women' (p. 292). Given these conclusions it is not unreasonable to expect that these differences will translate into the behaviour on social network sites as well. ${ }^{2}$ Consequently, we have formulated our first hypothesis in order to reflect the expected differences between posting comments and other, arguably more 'low-key' types of political expression on Facebook, such as 'liking' or sharing content. Therefore, our first hypothesis stated that

H1: There will be statistically significant differences between men and women in the prevalence of online political expression during the 2013 election campaign.

Following the example of many scholars who argue that gender itself does not sufficiently explain participation patterns (Hughes et al., 2012; Joiner et al., 2014; Lutz et al., 2014; Norris et al., 2004), pointing to the assumed mediating role of other variables, we wanted to explore if the expected differences will be related to some of the most commonly used structural variables, namely age, education and income. For example Lutz et al. (2014) argue that different interest in politics can cause gender differences in participation, as men are more interested in politics in general. According to Vráblíková (2009), individual access to resources, motivation and social networks should be considered as important influences on political participation. Bringing together the findings from a number of surveys on political participation, a report by Norris et al. (2004) concludes that gender differences in participation are weakening with higher education and incomes. According to Coffe' and Bolzendahl (2010), having a university degree significantly increases the likelihood of voting among women, but not among men; young men (around 25) and women above 50 are more likely to vote. Furthermore, married women participate less in politics (see Norris et al., 2004 for a conclusion that marital status has a different impact on men and women). With this in mind, we have formulated our second hypothesis:

## H 2 : The expected differences between men and women in online political expression will be mediated by age, education and/or income.

Apart from looking at the differences in whether men display higher tendency towards posting politically related comments in general, it is also possible to examine the actual intensity of commenting in relation to their authors' gender. Such a design promises to learn not just about whether men and women differ in their willingness to enter into the political debate on social network sites, but also about whose opinions are more visible in the online public sphere. Following this, we attempted to investigate whether there are any gender differences among the group of the most active Facebook commentators. Drawing on the traditional assumption of gender theory and research, which states that whereas women may be levelling the ground with men when measuring solely their representation in many professions and arenas, focusing on women's status reveals that the most important or elite positions remain male-dominated (De Bruin \& Ross, 2004; Williams, 1995), our third hypothesis predicted that

H3: There will be proportionately more males than females among the top Facebook commentators responding to the 2013 election campaign.

Furthermore, inspired by the outcomes of the psychological research on online behaviour (Joiner et al., 2014; Junco, 2013; Lin \& Lu, 2011), we were interested in finding out whether there were any differences in the tonality of online political contributions posted by men and women. Both Lin and Lu (2011) and Junco (2013) mention the importance of SNSs in women's lives as a means of building relationships, which consequently translates in their different online behaviour in comparison to men. According to Lin and Lu (2011), women are more sensitive to other people's opinions and tend to prefer positive tone in communication. Joiner et al. (2014) claim that the form of women's comments posted publicly differs from the form of men's comments, resonating with traditional notions of women being more 'consensual' compared to the more 'aggressive' men. Summarizing studies on the style or tone of public communication, Polletta and Chen (2013) have concluded that men 'interrupt more, are more hostile in tone [...] and are more likely to respond to women in a challenging way' (p. 294). Based on these assumptions, the final hypothesis therefore expected that

H4: Women will post more positive comments on Facebook than men in reaction to the 2013 election campaign.

## Methods and data

In designing our research, we took advantage of using two distinct yet complementary data sets, each produced by a different data collection method, namely a representative survey of the adult Czech population (which was used to test the hypotheses H1, H2 and partly H3), and a content analysis of communication on the selected Czech political parties' Facebook profiles (utilized to test the hypotheses H3 and H4). We expect that this kind of methodological triangulation (Benoit \& Holbert, 2008; Denzin, 1978) should provide us with a more complex understanding of the phenomenon under our scrutiny than the usual approach relying exclusively on one data source. Furthermore, the benefit of combining survey data with content analysis lies in the fact that while survey data brings information about the respondents' declared behaviour - an information which does not always have to correspond with reality, particularly when asking about the past - using content analysis gives us the opportunity to observe peoples' actual activities in the online environment, instead of relying on their memory of what they did some time ago.

The survey data used for this study were obtained by means of a quota sample ( $N=$ 1,653 ) representative of the adult Czech population with regards to region (NUTS 3), size of residence, gender, age and education. The survey was administered using face-to-face interviews conducted by 289 interviewers between 28 October and 11 November 2013, immediately following the pre-term Parliamentary Elections which took place on 25-26 October 2013 (see Appendix 1 for basic descriptive statistics of the sample). ${ }^{3}$ The data for the content analysis were collected from the official Facebook fan pages of seven Czech political parties, in the period of the last week before the elections ( 21 October to 26 October 2013). The selection of the parties was motivated by the aim to include the majority of the relevant Czech political parties and, at the same time, to represent three distinguished party types, namely traditional/mainstream parties (represented in the sample by the Czech Social Democratic Party, the Communist Party and the Civic

Democratic Party), the alternative/non-parliamentary parties (the Pirate Party and the Green Party) and the populist/protest parties which were established only very recently (ANO 2011 and the Dawn of Direct Democracy). The pages were systematically monitored and archived every day using the plug-in ScrapBook for Mozilla Firefox browser. For the analysis we used a sample involving only the first 30 responses (comments and replies) to each party status posted within that period; ${ }^{4}$ such sampling method produced altogether 278 party statuses, 3436 comments and 3392 replies.

## Measures

In order to measure online political expression based on the survey data, we used a battery of seven binary questions asking about Facebook users' $(N=743)$ activities during the campaign for the 2013 Parliamentary Elections on Facebook, ${ }^{5}$ namely:

- liking politician's or party post;
- commenting on a friend's contribution about the elections;
- sharing contributions by politicians or political parties;
- becoming a fan of a politician or a political party;
- commenting on posts by politicians or political parties;
- adding comments or information concerning elections on one's own profile;
- becoming a fan of another political initiative related to elections.

As part of the content analysis of Facebook users' comments and replies, we measured the valence (tone) of the users' statements separately towards 'own party' (that is, the party on whose Facebook profile the contribution was posted), towards another party and towards other Facebook users, on a three-point scale (positive, negative and ambivalent/neutral). ${ }^{6}$ Following our main research aim, the expressed gender of the Facebook users was coded, too; the coding process was guided primarily by the users' names/surnames, the use of suffixes in the comments (Czech language has a female suffix), or by their physical appearance on the profile picture, if available. Coding was performed by two coders, who, after having undergone several rounds of coder training, achieved an intercoder reliability score of $0.708,0.701$ and 0.901 (Krippendorff Alpha), respectively, for the three valence variables, which is considered an acceptable level (Lombard, Snyder-Duch, \& Campanella Bracken, 2002). ${ }^{7}$ For gender, Krippendorff Alpha was 0.915.

## Results

The elections, which took place half a year before the regular term following the demise of the centre-right government of PetrNečas in June 2013, had a second-lowest election turnout in the history of the Czech Republic (only $59.5 \%$ of eligible voters). In line with general expectations, the first place was taken by the Czech Social Democratic Party (ČSSD), which was in opposition for the previous seven years; however, the margin of victory was much smaller than predicted, as ČSSD received only $20.5 \%$ of votes, about $2 \%$ more than the runner-up, a newly formed party ANO 2011. According to our survey, there was no statistically significant difference between the election turnouts of women ( $68 \%$ ) and men ( $69 \%$ ), confirming thereby the above-quoted gender balance in election participation in Western democracies.

Table 1. Online political expression during the election campaign (share of Facebook users by their gender; $N=743$, percentage is calculated from valid answers only).

|  | Women (\%) | Men (\%) |
| :--- | ---: | ---: |
| Liking politician's or party post (+) | 21 | 26 |
| Sharing contributions by politicians or political parties | 15 | 18 |
| Commenting on posts by politicians or political parties (*) | 10 | 16 |
| Commenting on a friend's contribution about the elections (**) | 19 | 28 |
| Adding comments or information concerning elections on one's own profile (*) | 7 | 12 |
| Becoming a fan of a politician or a political party | 11 | 15 |
| Becoming a fan of another political initiative related to elections | 6 | 5 |
| Commenting index: At least one of the three commenting items (**) | 24 | 34 |

Note: Pearson chi-square ${ }^{* *} p<.01 ;{ }^{*} p<.05 ;+p<.1$. Missing values do not exceed $2 \%$ of the values for any item. The commenting items constituting the composite index (last line) have bivariate Pearson's correlations of $.40 ; .41$ and .42 which accounts for Cronbach alpha $=0.66$, an acceptable value given that only three items enter the index.

Online political expression was measured by asking respondents about their campaignrelated activities on Facebook. The results (see Table 1) reveal notable differences between men and women in some (though not all) of the e-expressive activities. While liking and sharing of content by politicians (or candidates), as well as becoming a friend of a politician or political party during the election campaign, did not show any statistically significant variations (although all these activities were more common by men), the three items representing various types of content production - posting on the respondents' own profile about elections, commenting on parties' profiles and commenting on friends' profiles about elections - display statistically significant bias towards male Facebook users (Pearson chi-square test with $95 \%$ level of confidence was used to test statistical significance). The difference is most prominent when it comes to commenting on friends' contributions about the elections ( $28 \%$ of men have declared they engaged in this type of activity during the election campaign, as opposed to only $19 \%$ of women).

Our first hypothesis (H1) was thereby confirmed, even if only with regards to commenting about the election campaign, which seems to be more prevalent among men, although the difference is not very large. This finding was further supported by creating a binary 'commenting index' out of the three items representing commenting activities (see Table 1); while a third of all male Facebook users in the sample engaged in at least one of those acts of political expression, this was the case for only a quarter of female users.

Apart from the survey, this study used content analysis to further explore the possible similarities and differences in the way men and women have engaged with the election campaign on Facebook. The analysis of comments and replies posted during the last week of the campaign on political parties' profiles further exacerbated the gaps between the two sexes indicated by the above-described results from the survey. Of all the 7106 observations in the sample, 1598 ( $22 \%$ ) were created by women and 4774 ( $67 \%$ ) by men; in case of the remaining 734 observations, gender could not have been identified, mainly because of the fact that most of such contributions were posted by the political parties themselves. In other words, while the survey suggested that when it comes to commenting elections on Facebook, the ratio between men and women is about 3:2 in favour of men, the content analysis revealed an even greater difference, a 3:1 ratio for men.

Naturally, the comparison of results obtained using these two different methods and data sets has some limitations; e.g. while in a survey every individual is represented as a single, solitary case, content analysis which deals with comments as units of analysis


Figure 1. Gender proportions for individual comments vs. unique Facebook users.
can include multiple expressions of the same author. Therefore, in order to test whether such a multiplication of comments could have affected the share of men and women in political commenting on Facebook, we have aggregated the data from the content analysis according to the name of individual users, so every single one of them could only be counted once. Based on this procedure we identified 3736 unique users, out of which $1010(27 \%)$ were coded as women, 2654 ( $71 \%$ ) as men; the remaining ( $2 \%$ ) could not be identified. The proportions between men's and women's comments depending on whether we use individual comments or comments aggregated around unique Facebook users are shown in Figure 1.

While these refined results somehow lower the previously identified gap between male and female commentators, reducing the ratio to 2.6:1 in favour of men, the overall finding from this part of content analysis clearly confirms that contrary to the general assumptions about gender balance in the online world, writing political comments (at least in the context of election campaign) on Facebook is much more a domain of men rather than women in the Czech Republic. Even though the difference was already suggested by survey data, its real volume only becomes apparent when looking at the results from the content analysis. This finding leads to a suggestion that survey data may not be sufficient to gauge the gender bias of online political expression. ${ }^{8}$

Once we established the difference between men and women in the prevalence of political commenting online, we wanted to explore if this difference is related to some structural variables such as age, education and income. First, we wanted to examine the impact of different levels of these structural variables on the prevalence of political commenting by male and female Facebook users. However, despite the significant differences in income between genders, ${ }^{9}$ some variance in the levels of education, and a slightly higher average age of women, none of these structural variables appear to have any influence on political commenting; the relationships are not statistically significant. ${ }^{10}$ In other words, in the population of Facebook users, income, education and age do not seem to have any influence on the prevalence of political commenting ( H 2 not confirmed).

In the second step, we have examined whether the above-quoted structural factors may have different effects for women and for men when it comes to political commenting on Facebook during the campaign. This assumption was tested using a series of binary logistic

Table 2. Models testing the hypothesis about different effects of selected structural variables on the relationship between gender and political commenting on Facebook.

|  | Estimate (SE) | Sig. |
| :--- | ---: | ---: |
| Model $1(N=486)$ |  |  |
| Male | $0.32(0.54)$ | 0.554 |
| Income | $-0.06(0.05)$ | 0.170 |
| Male $\times$ income | $0.05(0.06)$ | 0.414 |
| Model $2(N=729)$ | $0.1(0.48)$ | 0.841 |
| Male | - | 0.838 |
| Education | - | 0.414 |
| Male $\times$ education | $-0.02(0.49)$ | 0.972 |
| Model $3(N=719)$ | $-0.01(0.01)$ | 0.541 |
| Male | $0.01(0.01)$ | 0.341 |
| Age |  |  |
| Male $\times$ age |  |  |

Note: Binary logistic regression with the 'commenting index' as dependent variable: at least one of the three commenting activities on Facebook, see Table 1.
regression models with interactions. As Table 2 shows, none of the interactions is statistically significant. Therefore, we can argue that there is no evidence in our data that any of the selected structural variables (age, income and education) has any mediating effect on placing elections-related comments on Facebook by men and women. This exploratory probe suggests that other factors must explain the above-outlined differences between men and women.

Having demonstrated - both by means of a survey and by means of content analysis that men were proportionately more present among the Facebook users who posted comments related to the 2013 election campaign, and having shown that the differences in engaging in this type of online expressive action between men and women cannot be explained by the influence of structural variables of age, education and income, we can now turn to the third hypothesis. Here, we tested whether the gap between the two sexes will be maintained also when it comes to measuring the intensity of comments production (on political parties' Facebook profiles), as opposed to looking only at the gender ratio of unique authors in the whole sample. We have therefore calculated the proportion of women within users who produced a given minimum number of comments and replies (Figure 2). The results indicate that while there are $28 \%$ of women among all users who produced at least one comment or reply, there are only $11 \%$ of women among those users who produced at least 10 comments or replies ( 37 users). The overall trend in the chart is decreasing, even though this interpretation has to be cautious given the rather broad error margins for more frequent contributors. ${ }^{11}$ Still, the downward trajectory provides support to our third hypothesis: there seem to be proportionately fewer women among the top Facebook commentators responding to the 2013 election campaign. In other words, as commenting frequency increased, men became more prominent contributors.

Finally, our study set out to investigate whether there are also differences between male and female users in the character of Facebook comments posted on political parties' profiles during the election campaign. This was analysed by measuring the valence, or tone, of individual comments in relation to the 'home' party (on whose profile the comment was posted on), in relation to another party, and in relation to another Facebook user (whichever addressee the comment was aimed at).


Figure 2. Proportions of women in the subsets of Facebook users based on minimum number of contributions. Note: Horizontal axis marks the minimum number of contributions which defines each category in the chart. Among the 3367 contributors who contributed at least once (=all contributors), there are $28 \%$ of women and $72 \%$ of men. The categories overlap: e.g. the second category of 1073 contributors who contributed at least twice also includes all the categories to its right. Error margins are constructed on alpha $=0.05$.

As the following Figure 3 shows, our results display significantly different distributions of positive/negative comments among men and women. It turned out that female contributors tend to post significantly more positive comments when referring to the 'home party'; in such cases, $76 \%$ of women's comments were positive, contrary to $52 \%$ of positive comments produced by men. When a comment referred to another Facebook user, it was also statistically more likely (Cramer's $V=0.16, p<.01$ ) to be positive if posted by a


Figure 3. Differences in valence of Facebook comments posted by men and women. Note: Statistical significance tested with Pearson chi-square test.
woman (27\%) than by a man (12\%). The difference ceases to be statistically significant only for the category of comments referring to another political party or candidate; in such cases the shares of positive and negative comments among male and female Facebook users are very much similar. Our hypothesis H4 is thereby confirmed.

## Discussion and conclusions

In this study, we attempted to explore gender aspects of online political participation, which in our view remain still relatively understudied within the broader domain of online participation research. We focused specifically on the expressive forms of participation (see Gil de Zúñiga, Veenstra et al., 2014) using the social network site Facebook in the context of the 2013 Parliamentary Election campaign in the Czech Republic. The data presented in this article, which were collected using a combination of survey and content analysis, allow us to argue that contrary to popular perception, gender remains a significant predictor of certain types of online political expression, with important differences existing between men and women in the way they use this social network site to engage with the election campaign.

We found out that whereas in some online expressive activities requiring relatively less public visibility (such as liking parties' or candidates' posts, sharing contributions, becoming a fan of a politician, party or initiative) the differences between men and women are not statistically significant, more substantial variations occur when looking at those online actions which demand arguably more effort and exposure, particularly posting campaignrelated comments. Furthermore, differences were found not only in terms of the sheer quantity (men comment more often than women and also prevail amongst the most active users), but also concerning the quality of comments - women are less likely to post negative comments than men. When testing, in line with contemporary trends in research on gender aspects of political participation, whether selected structural factors (age, education and income) affect the relationship between gender and political commenting on Facebook, our data have indicated no statistically significant influence of these variables on political commenting.

These results suggest, as we suppose, some interesting implications for both theory and methodology of online political participation research. The fact that our data revealed gender differences only after a deeper examination of particular expressive activities on Facebook calls for a more careful, nuanced approach to the concept of 'online political expression'. While contemporary research brings a broad variety of communicative or expressive activities (liking, sharing, commenting on content, etc.) together under one conceptual umbrella, our data show that putting all these activities in one basket might obscure significant differences possibly existing among them when performed by men on the one hand and women on the other.

The gender difference in online political expression has implications for theoretical approaches to online political participation as well. It suggests that the prevailing interpretations of the online environment as 'genderless' should not be taken for granted but rather verified by more detailed empirical data, gathered from different contexts. Our data indicate that conclusions about the weakening importance of gender in (online) political participation may be premature. Not taking into account the differences between particular participatory activities and measuring them as one index of general
online political participation or online political expression probably obscure important gender differences in online political behaviour which become obvious especially when research focuses on activities requiring more involvement and exposure, particularly posting one's own comments.

At the same time, we would like to point out that even though we did not confirm the usual conclusion about the influence of other structural variables (such as age, education or income) on gender differences in political participation, this does not exclude the possibility that our results could be interpreted in structural terms. Arguably, apart from sociodemographic factors, there can be psychological reasons explaining the lower participation of women in public commenting on politics in SNSs. On the other hand, it is equally likely that there is a structural explanation of these psychological reasons such as differences in socialization, lifestyle as well as self-identity. Joiner et al. (2014) conclude that social context (including different social status of men and women) is responsible for the differences in women's and men's online behaviours. In order to confirm this, we would of course need a research design stretching beyond the one which informed this study. Nevertheless, the finding of Joiner et al. (2014) that women support others emotionally and use affiliative language more likely than do men in their public online communication corresponds with our conclusion that women are more likely to publish positive comments on Facebook (although the authors claim that women in their psychological experiment were not less likely to express negative emotions, which contrasts with our data). Similarly, Lin and Lu's (2011) conclusion that women consider SNSs an important source in building relationships and that they are also more sensitive to other people's opinions than are men may serve as one possible explanation of our data suggesting that women are less active in commenting on political content on Facebook - a potentially controversial activity which may have implications for personal relationships.

We are aware of the limitations of our research caused mainly by the fact that we were analysing a specific form of online expression (comments, replies) in a specific environment (the social network site Facebook). Furthermore, the content we were analysing was reduced to the official Facebook fan pages of seven Czech political parties taking part in the Parliamentary Election campaign. Although these parties were selected to represent three distinguished party types (traditional/mainstream, alternative/non-parliamentary and populist/protest parties), these forums can neither represent all forms of online political expression, nor are they illustrative of the wide range of deliberative forums in the online environment with their variety of communication styles, norms and discourses.

Concerning subsequent research, we find focus on the gendered character of public talk particularly inspiring (Norris et al., 2004; Polletta \& Chen, 2013). It suggests that public forums are usually culturally coded female or male and that this gendering of particular discussion environments is responsible for the activity of women participating in it (Polletta \& Chen, 2013) as women may be discouraged from participation because politics is traditionally considered the domain of men (Norris et al., 2004).

Open to interpretations and posing methodological questions is also the noticeable discrepancy between what people say they do in SNSs and what our content analysis revealed they really do. The difference between women's claims in the survey (suggesting that they are only a bit less active in political commenting online than men) and the data about their participation collected on political parties' Facebook profiles (suggesting that they are
much less active in political commenting online than men) call for broadening the repertoire of methodological instruments examining online political participation and particularly online political expression. In relation to this, we hope that our exploratory study could serve as an encouragement for other scholars to adopt methodological triangulation for the design of future studies in the area of online political participation.

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No potential conflict of interest was reported by the authors.

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## Notes

1. According to Strandberg (2013), the Finnish citizens who actively follow Facebook and Twitter content in a direct connection to the election campaign challenge the traditional patterns they are more likely to be young, less educated and female (p. 12-14). Similarly, Gil de Zúniga, Veenstra et al., 2014 stress the importance and unexpectedness of their finding that women express 'greater levels of [political] participation', at least among those who read Internet blogs (p. 46), although the authors admit certain methodological limitations.
2. A significant gender gap was recently discovered within the UK Twittersphere; according to BBC Trending, male Twitter users have been using political parties' official hashtags overwhelmingly more often than do women, with $75 \%$ political party tweets coming from males (according to http://www.bbc.com/news/blogs-trending-32137886, last accessed 8 July 2015).
3. The survey was administered by Public Opinion Research Centre (http://cvvm.soc.cas.cz/en/), one of the largest polling agencies in the country.
4. The decision to analyse only the first 30 reactions to each party status was an arbitrary one (although not unprecedented - similar approach was chosen by Iñaki Garcia-Blanco in his analysis of citizens' comments of selected newspapers' Facebook sites, see Garcia-Blanco 2014). At the same time, we intended to approximate an average volume of reactions to party statuses during the election campaign (the median number of users' contributions per party status ranged between 21-56 for the seven parties in the sample). Given that we archived Facebook content with a two-day delay (i.e. on Wednesday we archived content from Monday, on Thursday for Tuesday, etc.), using Facebook's 'most relevant' feature, these 30 comments and replies did not correspond to their chronological order but instead were sorted based on their level of interactions (likes, shares). In other words, for each status we have analysed the 30 reactions which have drawn most attention by the users.
5. The questions were not limited by a specific time frame such as 'last month' but referred generally to the duration of the election campaign.
6. As 'positive' we coded those comment/replies that expressed support for the party or the candidate, including an agreement with their policy/programme/statement, etc. 'Negative' were those ones critical to the party/candidate, or expressing disagreement with their policies or programme. 'Ambivalent/neutral' were those contributions neither decidedly positive nor negative, including those expressing both positive statements and criticism (e.g. 'I like your videos but unfortunately you don't exclude collaborating with party X'; or 'I would vote for you but without Mr XY on your list'). When coding the valence of the comment towards
another Facebook user, we only included those statements directly addressing the user, by using either their name or pronoun (e.g. 'you are totally wrong'), instead of those comments expressing a general reaction to the previous post without explicitly referring to another user (e.g. 'this is true', 'I don't agree with that').
7. Intercoder reliability was tested on a sub-sample of 227 coding units (users' comments and replies), drawn from the population of party posts by systematic random sampling (every 30th post was included; the first one was selected using a random number generator). In the absence of universally accepted sample size for intercoder reliability testing in a social media environment, we considered such sample size adequate, complying with the general recommendation by Lombard et al. $(2002,601)$ who suggested that a sample between 50 and 300 units should be satisfactory in most cases.
8. It is possible that the social desirability bias influenced the replies of female participants in the survey who may have exaggerated when answering question concerning their online engagement. Dalton and Ortegren (2011), for example, conclude based on several studies that females are more prone to the social desirability response bias.
9. Income was measured as net personal income by asking the respondents to choose from 17 income classes. The difference between women and men was 1.9 income classes. It was tested by independent-samples t -test, equal variances assumed, $t=6.24, \mathrm{df}=494, p<.001$ ). Note that $33 \%$ of the cases were excluded from the analysis ( $24 \%$ did not answer the question about income and $9 \%$ claimed to have no net personal income).
10. The relationship between political commenting on Facebook (binary index) and income was analysed with a t -test (equal variances not assumed, $t=0.196, \mathrm{df}=268, N=486, p=.845$ ). The relationship with age was also tested with t -test (equal variances assumed, $t=-0.083$, $\mathrm{df}=717, p=.934$ ). The relationship with education categorized into four levels was tested with Pearson chi-square test ( $N=729, p=.644$ ).
11. The error margins in the chart should not be compared among each other as the categories are not exclusive, but each category also includes all contributors to its right.

## Notes on contributors

Lenka Vochocová, PhD, is a lecturer and researcher at the Department of Media Studies, Faculty of Social Sciences, Charles University in Prague. Her research interests cover the fields of political economy of communication, gender media studies and public sphere theories. [email: lenka. vochocova@fsv.cuni.cz]
Václav Štětka, PhD, is Senior Researcher and Leader of the PolCoRe research group at the Institute of Communication Studies, Faculty of Social Sciences, Charles University in Prague. His research interests encompass political communication and the role of new media, transformation of media systems, and issues of media ownership and globalization. [email: vaclav.stetka@fsv.cuni.cz]
Jaromír Mazák is a lecturer and a PhD student at the Department of Sociology, Faculty of Arts, and member of the PolCoRe group, Faculty of Social Sciences, Charles University in Prague. In his dissertation project, he explores issues of civic participation and new political movements. [email: mazak.jaromir@gmail.com]

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## Appendix 1. Basic descriptive statistics of the survey sample (Tables A. 1 and A.2)

Table A.1. Socio-demographic distribution for the general sample, Internet users, and Facebook users (column percentages).

|  |  | Sample | Internet users | Facebook users |
| :--- | :--- | :---: | :---: | :---: |
| Gender | Male | 49 | 51 | 51 |
| Age* | Female | 51 | 49 | 49 |
|  | $18-24$ | 11 | 15 | 21 |
|  | $25-34$ | 18 | 23 | 30 |
|  | $35-44$ | 19 | 24 | 24 |
|  | $45-54$ | 16 | 18 | 12 |
| Education | $55-64$ | 17 | 14 | 9 |
|  | $65+$ | 18 | 6 | 3 |
|  | Primary | 17 | 11 | 13 |
|  | Lower secondary | 34 | 29 | 29 |
|  | Higher secondary | 33 | 39 | 38 |
|  | Tertiary | 16 | 21 | 19 |

*Mean age $=46.25(\mathrm{SD}=16.8)$.

Table A.2. Share of Internet and Facebook users within socio-demographic variables.

|  |  | \% of Internet users within <br> gender, age and education levels | $\%$ of Facebook users among Internet <br> users (vs. in the entire sample) |
| :--- | :--- | :---: | :---: |
| Gender | Male | 70 | $66(46)$ |
| Age | Female | 67 | $66(44)$ |
|  | $18-24$ | 91 | $94(86)$ |
|  | $25-34$ | 88 | $84(74)$ |
|  | $35-44$ | 85 | $68(58)$ |
|  | $45-54$ | 75 | $46(35)$ |
|  | $55-64$ | 56 | $43(24)$ |
|  | Education | Primary | 24 |
|  | 46 | $81(9)$ |  |
|  | Lower secondary | 59 | $66(39)$ |
|  | Higher secondary | 82 | $64(52)$ |
|  | Tertiary | 89 | $62(55)$ |

