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When digital natives enter the electorate: Political social media use among first-time voters and its effects on campaign participation

Jakob Ohme

ABSTRACT
In this study, we explore the media exposure of digital native first-time voters and test for its mobilizing potential for their campaign participation. We compare first-time voters’ and experienced voters’ exposure to political information on social network sites, non-social online media and offline media. Using a unique research design that involves a smartphone-based diary study, we assess voters’ (n = 1108) media exposure every other day of the Danish parliamentary election campaign in 2015. We distinguish between different content types that first-time voters receive on social media and test for variation in the mobilizing potential of these content types. Findings show that social media platforms play a superior role in the media diet of digital native voters and can foster campaign participation. First-time voters are more exposed to direct communication from political actors than experienced voters while content from news media on social media plays an equal role in both groups’ media diet. Results suggest that a digital media environment potentially socializes young voters into polarized information environments that nevertheless may increase their involvement in an upcoming election.

KEYWORDS
election campaigns; social media; campaign participation; digital natives; first-time voters

Much scholarship has examined how young people’s use of social media for political purposes influences political participation, be it political engagement in digital spheres or offline (Ekström & Shehata, 2016; Kahne, Lee, & Feezell, 2013; Tang & Lee, 2013; Theocharis & Quintelier, 2016; Vissers & Stolle, 2014; Xenos, Vromen, & Loader, 2014). A large share of these studies focuses on potential mobilizing effects in non-election periods, while fewer address how successfully social media use can engage young voters during an election campaign (e.g. Baumgartner & Morris, 2010; Holt, Shehata, Strömback, & Ljungberg, 2013). Election campaigns are high-stake events, and news media have an important influence on mobilizing citizens and their formation of vote decision (Fletcher & Young, 2012). News media use increasingly takes place on social media platforms (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2017). At the same time, political actors more often use platforms like Facebook or Twitter for direct communication with their electorate, for example, in Denmark where this study is conducted (Soerensen, 2016; van Dalen, Fazekas, Klemmensen, & Hansen, 2015). Direct political communication can be established if voters follow political candidates or parties on social media as well as through micro-targeting, which increasingly takes place on these platforms (Bimber, 2014; Kruikemeier, Sezgin, & Boerman, 2016).

Young citizens top the list when it comes to using social media for exposure to news (Gottfried & Shearer, 2016; Newman et al., 2017). In this study, we zoom in on the youngest cohort of voters, namely those who, as potential voters, experience an election campaign the first time. We are interested in how these first-time voters use different media during the campaign and to what extent especially social media use shapes their news diet and affects their engagement with an election campaign.

Most studies investigate mobilizing effects of social media use during an election campaign based on activities voters performed on these platforms, such as publishing, sharing or discussion content (e.g. Holt et al., 2013; Kahne et al., 2013). In contrast, we focus on the exposure to campaign news on social media. Special attention, hence, is dedicated to different types of political content citizens can find on social media.
The possibility of political micro-targeting and the increasing presence of political actors on social media have dominated discussions about recent election campaigns (Baldwin-Philippi, 2017; Kreiss & McGregor, 2017). Yet, we know little about how prominent this type of direct political communication is in young citizens’ campaign news diet in comparison to content from legacy news media or information from friends or followers. Furthermore, how exposure to these different information sources, at last, mobilizes citizens, is understudied (Aldrich, Gibson, Cantijoch, & Konitzer, 2016).

This study addresses these questions in three ways: first, it applies an innovative research design, assessing political information exposure via a smartphone-based media diary. This new method is used to tap citizens’ information diet throughout the 2015 Danish national election campaign. The high-frequency measurement makes it possible to survey media use on a more granular level and to distinguish exposure to different content types via social media platforms. Second, it compares the effects of information exposure via offline, non-social online and social media channels on citizens’ campaign participation. This extra engagement with the election is important to make an informed vote decision and therefore also crucial for first-time voters (Dimitrova, Shehata, Strömbäck, & Nord, 2014; Verba, Schlozman, & Brady, 1995). Third, most studies only consider young citizens (e.g. Baumgartner & Morris, 2010; Moeller, Vreese, de Esser, & Kunz, 2014; Vissers & Stolle, 2014; Yamamoto, Kushin, & Dalisay, 2013), but we compare first-time and experienced voters. This sheds light on whether first-time voters, who grew up with digital media, show a different susceptibility to political information during an election campaign than experienced voters (Aalberg & Jønssen, 2007; Colwell Quarles, 1979). The study thereby extends existing knowledge with a state-of-the-art analysis about campaign information patterns and subsequent voter mobilization in the digital media environment.

**First-time voters and social media**

News consumption among young citizens, in general, is declining (Mindich, 2005), but to the extent, they do receive news, social media platforms are their main source of information (Gottfried & Shearer, 2016). Likewise, turnout rates and political participation are declining in the younger age segments, which is a problem for a healthy democratic system (Moeller et al., 2014). First-time voters are no different than other young citizens when it comes to these developments. But moreover, they are an important group to study, since their first vote flags their entry into the political system, it has a predictive power for their future political behavior, and studies have shown that they rely strongly on media when forming their vote decision (Aalberg & Jønssen, 2007; Colwell Quarles, 1979; Gerber, Green, & Schachar, 2003; Ha et al., 2013; O’Keefe & Liu, 1980). Finally, the current generation of first-time voters are the first digital natives to be called to the ballot (Moeller et al., 2014). Beyond their young age, these factors make them a special and important group of voters to study.

Here, we define first-time voters as a group of citizens who belong, by their year of birth, to the youngest age bracket of the electorate and have not voted in a national election before. Although they may have voted in other elections, given the focus of this study, the previous voting in national elections is used as a reference point. Research describes local or European elections to be perceived as being of ‘second order’ (Marsh, 1998), where there is less focus on topics important for young citizens in media coverage (Moeller, Kühne, & Vreese, 2018). However, little is known about how this special group of citizens utilizes the new media environment as political information provider during a national election campaign. Hence, we need to know more about how susceptible first-time voters are to social media as a source of campaign information in general and to emerging types of political communication, such as being directly approached by political actors on these platforms. Although comparing the youngest cohort of voters against all older cohorts of experienced voters presents an obvious misfit, we still believe that contrasting the media effects of these two groups on electoral behavior can give valuable insights about future mobilization patterns.

**The usage of social media in an election campaign**

It is important to understand where first-time voters obtain information about politics in an
Young adults use social media for a number of purposes (Lenhart, 2015). The possibility to personalize the news diet on these platforms (Thorson & Wells, 2015) can lead to a narrower information diet, while inadvertent exposure to information from their network (Fletcher & Nielsen, 2017) might broaden their horizon. A few studies have investigated the use of social media as a source of political information in an election campaign. Dimitrova et al. (2014) found rather limited usage of social media as sources of information among the general population in the Swedish 2010 national election. Baumgartner and Morris (2010) found that around a quarter of 18–24-year-old voters in the 2008 U.S. presidential election received news via social media networks, outnumbered by TV or print media use. More recent reports, however, indicate that if young citizens receive political information at all, it is from social media platforms (e.g. Mitchell, Gottfried, & Matsa, 2015; Newman et al., 2017). Hence, we expect young citizens to use social media as their main information source in an election campaign.

H1: First-time voters are more often exposed to political information on social media than on non-social online and offline media channels during the election campaign.

One goal of this study is to detect whether first-time voters, given their age and inexperience with voting, show characteristics not found among more experienced voters. The use of social media platforms as news sources is not restricted to young citizens (Holcomb, Gottfried, & Mitchell, 2013). In the Danish context, Newman et al., (2016) find that citizens under 35 years use social network sites for news only slightly more on a weekly basis than the general population. Given the rather large age span and the non-election context in these studies, it is difficult to say if first-time voters are special in this regard. We therefore ask:

RQ1: Are first-time voters more often exposed to political information on social media during an election campaign than more experienced voters?

Content exposure on social media during the election campaign

Users can receive political information via social media platforms in several different ways, i.e. by mainly following news media, by subscribing to information from political actors or by random exposure to political content that is shared by others. Direct political communication (i.e. regular newsfeed posts or paid, personalized advertising stemming from political actors) is a special characteristic of social media platforms (Bimber, 2014). Political micro-targeting (i.e. paid, personalized advertising; Kruikemeier et al., 2016) is a way for political actors to reach out to specific groups of the electorate, circumventing content curation by users and algorithmic decisions by the platforms. In the aftermath of the 2016 US election (Kreiss & McGregor, 2017) and the 2016 Brexit referendum (i.e. the decision of Great Britain to leave the European Union; Bodó, Helberger, & Vreese, 2017), questions have been raised about the consequences of reaching voters with this new style of digital, political communication.

As far as content diversity on social media, previous studies have mainly looked at general exposure (Baumgartner & Morris, 2010; Dimitrova et al., 2014; Ha et al., 2013; Holt et al., 2013) and neglected individual differences in users’ personalized news diet. However, especially during an election campaign, it is of great interest to know whether citizens are addressed directly by political communication in social media newsfeeds or whether they rely on third party information, such as news media or friends and followers. The extensive literature on the use of digital media in election campaigns points to the increasing use of social media platforms by politicians (e.g. Bimber, 2014; Howard, 2006; Karlsen, 2011). One hundred and seventy of 175 Danish MPs maintain a Facebook account with generally high posting activities (Soerensen, 2016), and the case of Denmark can thus shed light on future developments in countries where political actors are only beginning to use social media more. However, it is unclear how successful political actors are when it comes to appearing in a curated news diet of first-time voters, who might find this personal and accessible connection to political actors convenient.
but may not want to be bothered by a candidate running for parliament. The following questions are therefore posed:

RQ2: Are first-time voters more often exposed to direct political communication than to information from news media or friends and followers?

On social media, political actors focus especially on young voters in the election campaign (Enli & Skogerbø, 2013). All parties know that it is important that young citizens vote and they are always trying to win new voters. We know little about whether politicians’ increasing attempts to reach out to young voters via social media (Lilleker, 2015; Sloam, 2015; Soerensen, 2016) is effective (see Aldrich, et al., 2016 for a recent exception). In a non-social media context, Strandberg (2013) finds that voters below 25 years rely more on party – and candidate websites than any other age groups in the 2011 Finish parliamentary election. Because of the high social media activities of parties and candidates and young people’s extensive use of social media, it is expected that:

H2: First-time voters are exposed to direct political communication on social media more often than experienced voters.

Mobilization to participate through social media

Social media platforms are a special place of information exposure in terms of how users can access political information and the characteristics of the content they are exposed to. These differences in access and content distinguish platforms like Facebook and Twitter from traditional offline media or online sources (e.g. news websites, political blogs, party websites). Research could establish strong mobilizing effects of social media use on political participation in non-election times (Ekström & Shehata, 2016; Kahne et al., 2013; Tang & Lee, 2013; Theocharis & Quintelier, 2016; Vissers & Stolle, 2014; Xenos et al., 2014) and on campaign participation (Baumgartner & Morris, 2010; Holt et al., 2013). However, studies investigating mobilizing effects of social media use during an election campaign are mostly based on activities that voters performed on these platforms, such as publishing, sharing or discussion content (Holt et al., 2013; Kahne et al., 2013). Therefore, we know little about how the growing exposure to campaign information on social media shapes especially young citizens’ news diet and affects their engagement with a campaign.

Extant research does not fully agree on why news exposure on social media may exert relatively strong mobilizing effects on political participation (Boulianne, 2017). One plausible reason is that characteristics of information selection on algorithmic media alter the content citizens are exposed to (Bode, 2016). Prior (2007) describes how a changing media environment can affect citizens’ political behavior. Based on considerations from the O-M-A framework (Delli Carpini & Keeter, 1996), a change in access to information can shift opportunities, motivations and abilities to learn from media exposure.

The present study argues that social media transform political media exposure in a way that affects the political content received on such platforms: content may be more relevant, more diverse and more directed than political content received from offline or non-social online channels. First, a higher relevance results from the pre-selection of sources into a news diet by the user and the algorithmic decisions based on previous behavior by the individual and the personal network. Second, a higher diversity results from a great number of different sources to choose from at no costs and the possibility of inadvertent exposure (Bode, 2016; Kim, Chen, & Gil de Zúñiga, 2013; Valeriani & Vaccari, 2016). Third, social endorsements (such as recommendations, reactions or comments) accompany the vast majority of news feed items on social media (Messing & Westwood, 2014). Therefore, content appears more directed and may affect the interpretation by a user (e.g. what to think or do about a political issue).

All three factors increase the opportunity to receive political information that is of interest to a citizen. At the same time, content that is directed at the user or is surprising due to its inadvertent nature may decrease the motivation users need to expose to it. Based on the O-M-A framework, a greater opportunity to receive political information combined with the fact that users need less
motivation to process it increases the chances of engagement with political topics, for example, by political learning (Prior, 2007). Bode (2016), for example, found that exposure to political information on social media offers the opportunity for political learning, although users may not learn more from it than from other media content. Political engagement, which comprises of factors like political interest or knowledge, in turn, is an important precondition for political participation in the Civic Voluntarism Model (Verba et al., 1995).

In the case of an election campaign, exposure to political information via social media may increase political engagement with campaign topics. Engagement with political information during the campaign, in turn, may be an important precondition for citizens’ campaign participation. Previous studies have found mobilizing effects of social media use during election time, for young citizens as well as for the general population (Ha et al., 2013; Holt et al., 2013; Kushin & Yamamoto, 2010). One of the few studies that specifically compare media channels finds that social media use has a stronger effect on campaign participation in the Swedish population than the use of other news websites (Dimitrova et al., 2014). Following our above-mentioned argumentation, all citizens receiving political information via social media may experience higher relevance and greater diversity of content. Hence, we expect:

**H3: Exposure to political information on social media will have a greater mobilizing effect on campaign participation than exposure to political information from non-social online and offline channels.**

“The role of people’s skills in political learning depends in part on the kinds of skills that the available media require” (Prior, 2007, p. 33). Considering that social media offer benefits over other media, namely easy access to relevant information and more diverse content, citizens’ ability to take advantage of these different affordances is an important condition for potential effects of social media exposure. Today’s first-time voters are the first digital native voters (Moeller et al., 2014). Their upbringing in a digital media environment makes it easy for them to operate on especially social media platforms (Palfrey & Gasser, 2010; Thomas, 2011). They are more likely to benefit from social media than experienced voters, who may not be as skilled as digital natives in administering their social media news feed effectively. A number of studies have found mobilizing effects of social media use especially for young citizens (Baumgartner & Morris, 2010; Ekström & Shehata, 2016), but few studies focus on social media use of the youngest cohort of voters or compare them with older voters. However, such a comparison allows us to spot developments that may reflect future trends in mobilization through election campaign information. Since first-time voters ‘get more out of’ their social media use during an election campaign, it is likely that exposure to political information will affect their engagement with election topics more than experienced voters’ engagement. Therefore:

**H4: Exposure to political social media information will have a stronger mobilizing effect on first-time voters’ campaign participation than on more experienced voters.**

Lastly, social media use during an election campaign increases the chances of being exposed to direct communication from political actors, either by following their updates intentionally, being inadvertently exposed to messages shared by network contacts or through targeted advertising (Bimber, 2014; Bodó et al., 2017). When they use direct communication, political actors bypass journalistic filters. This makes their political information more directed than information from legacy news media, which tends to be more balanced (Bruns, 2011). During election campaigns, politicians specifically target online activities at involving, connecting and mobilizing voters, and it is possible that such activities engage voters more than other information on social media (Foot & Schneider, 2006). Higher political engagement as a result of direct political communication may, therefore, mobilize citizens more strongly to participate in campaign-related activities than other information received via social media. This type of research is sparse, but Aldrich et al. (2016) find that direct online contact to political actors can have a mobilizing effect on turnout as well as
campaign participation of UK and US citizens. Interestingly, they find that also indirect contact to political information online (i.e. receiving messages as endorsements from personal ties) had an especially mobilizing effect for the youngest voters. Messages directly from key players in an election campaign may also include more often direct calls for action. Such recruitment for actions is an extra ‘triggering factor’ to mobilize people (Verba et al., 1995). Hence, there is a reason to expect that:

**H5:** Direct political communication will have a stronger mobilizing effect on citizens than information from news media or friends and followers.

**H6:** Direct political communication will have a stronger mobilizing effect on first-time voters’ campaign participation than on experienced voters’ campaign participation.

**Method**

In order to investigate the influence of exposure to political information on campaign participation, the study relies on a pre- and post-election online panel survey and an eleven-wave smartphone diary study conducted during the Danish national election campaign in 2015. With high Internet coverage and a high number of persons using smartphones (both at 96%; Danmarks Statistik, 2016), Denmark is a well-chosen case to conduct an online and smartphone-based survey study. The diary study invited respondents to take a short survey on their smartphone every second day in the late evening to assess their media exposure on that day. The high frequency of measurements allows for a realistic estimation of their political media use during campaign time as well as a granular assessment of exposure to social media content types.

**Sample**

The sample consists of 1108 respondents. Of these 162 are first-time voters (18–22 years old at the time of the election) and 946 ‘experienced’ voters (23 years and older). First-time voters are defined as a group of citizens, who had reached legal voting age during the last election cycle and by self-report had no right to vote in the last national election. All respondents took part in the pre- and post-election survey and at least four mobile diary surveys. The latter were fielded 11 times during the three-week election campaign period. This provides a comprehensive assessment of their media exposure during the election campaign.

Respondents were recruited using a pollster’s database and the use of national register data. Three different groups were included: a general population sample, a sample of elderly and a youth sample. The general and the elderly samples were recruited from the pollster’s database, which is representative of the Danish population. The sampling strategy relied on a light quota on age and gender. In the general population sample, 10,315 were invited to take the online survey of which 45% (n = 4641) did. Similarly, 60% of the elderly agreed to participate (n = 1831). For the youth sample, 13,700 persons aged 17–21 years old at wave one were randomly sampled, using national register address data; 19% (n = 2653) did. In total 9125 (4641 + 1831 + 2653) participated.

The pre-election wave, which was the third wave of a longitudinal study, included 2946 respondents from the national sample (attrition rate from wave 1 (4641): 36%). The elderly sample included 1369 respondents (attrition rate from wave 1 n = 1831: 23%) and the youth sample 1051 (attrition rate from wave 1 (n = 2653): 61%). In the post-election wave conducted the day after the election, 2680 respondents in the general sample, 1292 respondents in the elderly sample and 769 respondents in youth sample were retained (overall retention rate 88%). Of the respondents participating in pre- and post-election wave, 1349 (28%) participated in the mobile election diary study. Out of these, 82% participated at least 4 times in the mobile diary leading to a final sample of 1108.

**Measures**

**Exposure to political information (EPI).** To measure exposure to political information during the campaign, we asked the respondents every other day what they had been exposed to, rather
than let them assess their media use retrospectively for the complete three weeks. We used a smartphone-based diary measure (Ohme et al., 2016) with questions constructed around three modes of reception, i.e. Audio, Page and Stream (Engel & Best, 2012), rather than around exposure categories from previous studies (e.g. TV, Print or Radio). Here, respondents were asked whether they were listening to, reading or watching political content on the respective day. We argue that these modes better account for media exposure in a convergent media environment because the actual sources of exposure are differentiated, which reduces recall efforts by respondents and results in a reliable exposure measure (Authors, 2016; Slater, 2004). Furthermore, the measurement allows for a comprehensive assessment of different content types respondents were exposed to on social media, rather than using mere time-measurement (see Appendix C). This allows to explore how many respondents use social media as a source of information in an election campaign, and it reveals what kind of information they actually receive on these platforms (Authors, 2016). Respondents received queries on their smartphone to take the diary survey on 11 days throughout the election campaign; however, not all respondents participated every day. To receive a reliable estimate of their campaign media exposure, respondents who participated very few times were excluded. Subsequently, the analysis relies on respondents who were participating at least four and up to all of the 11 days. To account for this variation in participation and to make data comparable, a relative exposure measurement was calculated on an individual data level. The frequency of exposure to offline, online or social media sources as well as to different social media content types was divided by the number of days each respondent had participated in the survey. The relative measure ranged from 0 to 1, with 1 indicating exposure to the information from the corresponding media channel or to the specific social media content type on all days the respondent had participated.  

Campaign participation. Respondents were asked in a post-election survey whether they participated in 12 predefined political activities during the election campaign (see Appendix B). This builds on approaches from Dimitrova et al. (2014) as well as Kahne et al. (2013) but is a more comprehensive way of assessing campaign participation, since it includes offline activities (e.g. attended public meetings, discussions, debates and lectures about the election), online activities (e.g. used a vote advice application online) and social media activities (e.g. expressed your support for a party or candidate). Respondents were asked if they participated in any of these activities over the course of the campaign time. An index of campaign participation was subsequently calculated and showed sufficient reliability (Cronbach’s α = .73, Min = 0, Max = 12, M = 2.9, SD = 2.2). Intended campaign participation was assessed by asking respondents before the campaign how likely it is that they will perform the same 12 activities on an 11-point scale (0: Not likely at all – 10: Very likely) (Cronbach’s α = .88, Min = 0, Max = 120, M = 39, SD = 22).

Controls
Age (M = 48, SD = 19, Min = 18, Max = 80), gender (45% female), formal education, income, political interest (M = 6.8, SD = 2.3, Min = 0, Max = 10; see also Appendix B), and being a first-time voter were added as control variables to the model.

Analytical strategy. In a first step, media exposure via traditional offline media, online media (e.g. news websites, political blogs, party websites), and social media platforms are compared between the two groups of the electorate. It is tested if the extent to which first-time and experienced voters are exposed to different content types on social media is significantly different; in particular, for content people read (i.e. Page) and watched (i.e. Stream) on these platforms. In the next step, the general mobilizing potential of offline, online and social media exposure for campaign participation is examined. An OLS regression model allows for the inclusion of intention to participate in the campaign indicated by respondents at the beginning of the campaign. By controlling for this proxy of a lagged dependent variable, the model estimates the influence of media exposure on the individual deviations between intended and actual
behavior. Thus, changes in participation induced by media use are examined. With the use of interaction effects in the regression models, differences between first-time and experienced voters’ mobilization effect through media use are assessed. Lastly, to understand in greater detail what content types in a political social media diet can affect participation, the effects of content from political actors, news media, friends or followers, other pages or blogs, and political advertising on campaign participation are estimated in an OLS regression model for both groups of the electorate.

**Results**

Hypothesis 1 predicts higher media exposure to political information on social media than from other online and offline sources for first-time voters, and this was confirmed (see Figure 1). On average they received political information on approximately six of the 21 campaign days (27%) from offline media sources, on approximately three days (10%) from online news media and approximately seven days (33%) from social media. The first research question (RQ1), whether social media platforms have higher relevance for first-time voters than for experienced voters, can be answered affirmatively. First-time voters used such platforms significantly more often ($M = .35$, $SD = .27$) than experienced voters ($M = .23$, $SD = .29$, $t(1106) = -4.6$, $p \leq .001$), although the difference is rather small. Furthermore, first-time voters used offline sources significantly less ($M = .28$, $SD = .18$, $t(1106) = 10.6$, $p \leq .001$) than experienced voters ($M = .51$, $SD = .27$). No significant differences for online exposure between the two groups (first-time voters: $M = .13$, $SD = .13$; experienced voters: $M = .14$, $SD = .11$, $t(1106) = 0.2$, $p \leq .849$) were detected (see Figure 1).

We also investigated if citizens receive more content from political actors than from news media and personal contacts like friends and followers (RQ2). We looked at content from political actors and political advertising separately, and interestingly, first-time voters were overall significantly more frequently exposed to posts and videos by political actors than to content from news media, friends or followers and other pages. Experienced voters were almost equally often exposed to content from political actors and news sites on social media (see Table 1). A more nuanced picture emerges for political advertising. While political advertising in the form of posted text adds is rather rare for first-time voters ($M = .2$)
.20, $SD=.25$) and experienced voters ($M=.14, SD=.25$), political video adds occur much more frequently in both groups’ media diet (first-time voters: $M=.61, SD=.40$; experienced voters: $M=.49, SD=.40$). We can, therefore, conclude that voters, if they indicated receiving political content from social media at all, in most instances are frequently exposed to information from political actors in relation to content from news media, followers and friends, and other social media pages.

Additionally, since political actors potentially put more effort into targeting first-time voters, even higher exposure to content from political actors was expected for the youngest voters (H2). This expectation was confirmed by the results shown in Table 1. First-time voters received significantly more posts and videos from political actors during the election campaign via social media than more experienced voters. The same pattern was found for political advertising, text-based and videos. This finding is especially interesting since exposure to content from news media and friends or followers did not differ significantly between the two groups. First-time voters do not see political information from news media more frequently than experienced voters, but receive more information from political actors on social media during the election campaign.6

To test for the mobilizing effect of exposure to political information via social media on voters’ campaign participation, several OLS regressions, partly controlling for the variable of intended campaign participation, were conducted (Table 2). Intention to participate in an election campaign is different from actual political behavior and can therefore not be used as a lagged dependent variable. However, controlling for initial motivation to participate helps scrutinize our results. Given the close relation between being a first-time voter and age as variables in our models, we ran multi-collinearity analyses for each model. Variance inflating factors (VIF) range between 1.7 and 4.1. A VIF below 4.0 is considered as less concerning while serious issues with multicollinearity can be assumed for values of 10 and above (Acock, 2014; Hair, Anderson, Tatham, & Black, 1995). Hence, no adjustments to the models were necessary since multicollinearity was below crucial thresholds.

Looking at the general effects of media exposure on voters’ campaign participation, we find that exposure to social media and other online media significantly predicts campaign participation, while offline media exposure does not (Model 1). The interaction effects of exposure and being a first-time voter indeed show that for all three media channels, first-time voters are less affected by political information exposure than experienced voters (Model 2,3,4); hence, H4 needs to be rejected. Looking at the marginal effects of the two groups’ media exposure yields additional insights into how strongly media use can indeed mobilize first-time voters’ campaign participation. In Figure 2, we see that a higher offline media use during campaign time decreases first-time voters’ likelihood to become active in campaign-related activities. Online media use contributes to neither a higher nor a lower likelihood of first-time voters becoming

Table 1. Exposure to different content types on social media.

<table>
<thead>
<tr>
<th>Types of content received on social media</th>
<th>First-time voters</th>
<th>Experienced voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posts read from political actors</td>
<td>$M=.73^{b}$</td>
<td>$M=.58^{b}$</td>
</tr>
<tr>
<td>Posts read news media pages</td>
<td>$.61^{ab}$</td>
<td>$.60$</td>
</tr>
<tr>
<td>Posts read from other pages or blogs</td>
<td>$.15^{a}$</td>
<td>$.13^{a}$</td>
</tr>
<tr>
<td>Posts read from friends and followers</td>
<td>$.53^{ab}$</td>
<td>$.54^{ab}$</td>
</tr>
<tr>
<td>Political advertising read</td>
<td>$.20^{a}$</td>
<td>$.14^{a}$</td>
</tr>
<tr>
<td>Videos from political actors</td>
<td>$.64$</td>
<td>$.42^{d}$</td>
</tr>
<tr>
<td>Videos from news media</td>
<td>$.27^{cd}$</td>
<td>$.26^{cd}$</td>
</tr>
<tr>
<td>Videos by other pages of profiles</td>
<td>$.23^{cd}$</td>
<td>$.18^{cd}$</td>
</tr>
<tr>
<td>Videos by friends and followers</td>
<td>$.33^{cd}$</td>
<td>$.39^{d}$</td>
</tr>
<tr>
<td>Political advertising watched</td>
<td>$.61$</td>
<td>$.49^{d}$</td>
</tr>
</tbody>
</table>

$*p<.05$, $**p < .01$, $***p < .001$; $a$ = sig. difference compared to posts read from political actors, $b$ = sig. differences compared to political advertising read; $c$ = sig difference compared to videos from political actors; $d$ = sig. differences compared to political advertising watched.
politically active. Only for social media, we see a positive relationship for the exposure to political information on these platforms and first-time voters’ campaign participation. To test for the robustness of the stronger mobilization effect for experienced voters, we included the intended campaign participation in the model. This helps ensure that the effects we are looking at are indeed related to the exposure on different media channels rather than to prior intention. Model 5, 6 and 7 in Table 1 shows that the negative interaction effects for first-time voters are robust, yielding the exact same pattern but with reduced effect sizes. Therefore, H3 receives support.

Lastly, the possibility of a stronger mobilizing effect through direct political communication compared to information from news media, friends or followers, or from other pages or blogs was examined. Results from a regression model that tested for effects of particular social media content types on campaign participation support the strong relation between direct political communication and campaign participation, as proposed by H5. Table 3 (Model 8) shows that non-commercialized content from political actors is most strongly related to campaign participation, followed by content from other political pages users followed and content received via friends or followers. For content from news media and political advertising, no statistically significant effects on campaign participation could be established. Furthermore, Hypothesis 6, expecting greater mobilizing effects of direct political content for first-time voters than for experienced voters (Model 9), did not find support. The only difference between the two groups is a weaker influence of content from friends and followers on first-time voters. Hence, first-time voters are more strongly mobilized to engage in the campaign by regular posts from political actors (but not from political advertising) than by information from news media or friends and followers. Mobilization by direct political communication is the same for young and for experienced voters.

Table 2. Predicting Campaign Participation (OLS).

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (female high coded)</td>
<td>.013 (.115)</td>
<td>.013 (.115)</td>
<td>.012 (.115)</td>
<td>.008 (.114)</td>
<td>−.001 (.096)</td>
<td>−.001 (.096)</td>
<td>−.003 (.096)</td>
</tr>
<tr>
<td>Age</td>
<td>−.114** (.004)</td>
<td>−.133*** (.004)</td>
<td>−.113** (.004)</td>
<td>−.115** (.004)</td>
<td>−.056* (.004)</td>
<td>−.044 (.004)</td>
<td>−.047 (.004)</td>
</tr>
<tr>
<td>Education</td>
<td>.017 (.032)</td>
<td>.014 (.032)</td>
<td>.017 (.032)</td>
<td>.018 (.032)</td>
<td>.017 (.027)</td>
<td>.019 (.027)</td>
<td>.019 (.027)</td>
</tr>
<tr>
<td>Political Interest</td>
<td>.239*** (.027)</td>
<td>.243*** (.027)</td>
<td>.240*** (.027)</td>
<td>.245*** (.027)</td>
<td>.014 (.025)</td>
<td>.012 (.025)</td>
<td>.017 (.025)</td>
</tr>
<tr>
<td>Exposure to political information (EPI) EPI Offline</td>
<td>.023 (.264)</td>
<td>.053 (.277)</td>
<td>.027 (.264)</td>
<td>.032 (.263)</td>
<td>.001 (.234)</td>
<td>−.015 (.223)</td>
<td>−.012 (.222)</td>
</tr>
<tr>
<td>EPI Online</td>
<td>.178*** (.460)</td>
<td>.179*** (.459)</td>
<td>.195*** (.477)</td>
<td>.180*** (.456)</td>
<td>.098*** (.392)</td>
<td>.108*** (.408)</td>
<td>.099*** (.391)</td>
</tr>
<tr>
<td>EPI Social Media</td>
<td>.407*** (.209)</td>
<td>.413*** (.209)</td>
<td>.411*** (.209)</td>
<td>.447*** (.218)</td>
<td>.239*** (.185)</td>
<td>.236*** (.185)</td>
<td>.257*** (.195)</td>
</tr>
<tr>
<td>First-time voter (FTV = high coded)</td>
<td>−.030 (.206)</td>
<td>.079 (.302)</td>
<td>.026 (.258)</td>
<td>.109* (.281)</td>
<td>.081* (.251)</td>
<td>.052 (.216)</td>
<td>.091* (.236)</td>
</tr>
<tr>
<td>EPI Offline*FTV</td>
<td>−.136** (.807)</td>
<td>−.078* (1.161)</td>
<td>−.079* (.678)</td>
<td>−.046 (.967)</td>
<td>−.094** (.454)</td>
<td>.573*** (.003)</td>
<td>.574*** (.003)</td>
</tr>
<tr>
<td>EPI Online*FTV</td>
<td>−.180*** (.535)</td>
<td>.046 (.967)</td>
<td>−.046 (.967)</td>
<td>−.094** (.454)</td>
<td>.573*** (.003)</td>
<td>.574*** (.003)</td>
<td>.568*** (.003)</td>
</tr>
<tr>
<td>EPI Social Media*FTV Intended Campaign Participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

Standardized beta coefficients; Standard errors in parentheses.
*p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001.
Discussion

This study took as its starting point the fact that digital natives all over the world are approaching voting age and their first vote (McKinney, 2011; Moeller et al., 2014). It examines how voters in the 2015 Danish national election were informed and mobilized by social media use during the election campaign. Given a greater ability of digital natives to make use of social media, the study expects first-time voters to be more strongly affected in their campaign participation than experienced voters (Thomas, 2011). The analysis compares the influence of exposure to political information on social media vis-à-vis exposure to other online and offline media and thereby extends previous research in this area (Dimitrova et al., 2014; Kushin & Yamamoto, 2010; Moeller et al., 2014). Relying on a national online panel survey with waves right before and after the election campaign and a smartphone-based diary survey, the study measured media exposure on 11 of the 21 days’ election campaign.

Results suggest that first-time voters are a special group in the electorate, but not entirely the way expected. We find that first-time voters mainly receive campaign information from social media platforms. This supports findings from recent studies (Hargittai & Shaw, 2013) but contradicts more dated findings, which found online news and traditional offline media to be the prevalent information sources compared to social media (Baumgartner & Morris, 2010). Moreover, such platforms appear to be the place where political actors reach the youngest voters with their messages. This underlines the relevance of recent debates discussing the merits and dangers of politicians making use of social media in a campaign (Kreiss & McGregor, 2017). Our findings that political social media exposure affects first-time voters’ campaign participation most positively and that non-commercial posts and videos received from political actors have the highest mobilizing potential points to the need in the future research to look more closely into the effects of social media campaigning on an individual level. However, the suggested strong media effects for first-time voters (O’Keefe & Liu, 1980) might be less true for young citizens who grew up in a digital media environment. In fact, we see that first-time voters are difficult to mobilize by mere exposure to political information from any kind of media channel.

Our study shows that the youngest generation of voters, rather than being the “least involved and least politically active segment of the population” (Kaid, McKinney, & Tedesco, 2007, p. 1094), take advantage of the easy access to political information as digital natives – if they need it. However, first-time voters’ focus on social media means less attention to offline media and other online media. The higher
relevance and greater diversity of information may explain for the supremacy of social media here (Messing & Westwood, 2014; Thorson & Wells, 2015). Furthermore, inconvenient acquisition costs and the pull-information mechanism (Klinger & Svensson, 2015) may seem cumbersome to digital natives who are used to social media pushing information towards their newsfeed. As far as traditional news media, their presence on every social media platform does not make them the preferred source of information among first-time voters during an election campaign. This supports Mindich’s (2005) observation that young citizens tune out from traditional news media. This is partly worrisome since the news media’s role in society (to provide objective information and guidance, act as a watchdog, be a forum of diverse views; Christians et al., 2009) is weakened by this development.

In contrast, we find that the high usage of social media provides young voters with other relevant information, in addition to news media content, about an upcoming election. Direct political communication plays an important role in first-time voters’ media diet. This indicates that if they want to be informed about candidates and issues in an election campaign, they get this information in the same tailored way that they get all other information they need: curated into a news diet that fits their special needs. It may sound counter-intuitive at first, but given that digital natives start using social media platforms way earlier than they start using news media independently of their parents, this finding makes good sense. In a situation like their first election, when society expects them to inform themselves about the campaign and make an informed vote decision, they may simply follow the information acquisition models they already

<table>
<thead>
<tr>
<th>Table 3. Predicting campaign participation by specific social media content types (OLS).</th>
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<tbody>
<tr>
<td><strong>Campaign Participation</strong></td>
</tr>
<tr>
<td>Gender (female high coded)</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Political Interest</td>
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<tr>
<td>Exposure to political information (EPI)</td>
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<tr>
<td>EPI Offline</td>
</tr>
<tr>
<td>EPI Online</td>
</tr>
<tr>
<td>EPI Social Media</td>
</tr>
<tr>
<td>posts/videos from political actors</td>
</tr>
<tr>
<td>posts/videos from news media</td>
</tr>
<tr>
<td>posts/videos from friends or followers</td>
</tr>
<tr>
<td>posts/videos from other pages or blogs</td>
</tr>
<tr>
<td>political advertising (text/video)</td>
</tr>
<tr>
<td>First-time voter (high coded)</td>
</tr>
<tr>
<td>post/videos from political actors*FTV</td>
</tr>
<tr>
<td>post/videos from news media*FTV</td>
</tr>
<tr>
<td>post/videos from friends or followers*FTV</td>
</tr>
<tr>
<td>post/videos from other pages or blogs*FTV</td>
</tr>
<tr>
<td>political advertising (text/video)*FTV</td>
</tr>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td>adj. $R^2$</td>
</tr>
</tbody>
</table>

Standardized beta coefficients; Standard errors in parentheses
*p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001
know best. Certainly, ‘tuning in’ to messages from political actors can quickly result in a de-selection the day after the election. But the most important point is that selecting political actors into the news diet apparently creates a synergy, and the exposure to this content has actual mobilizing power. It engages first-time voters in the election by, for example, inspiring them to visit an election event, use a vote advice application or convince others on social media to vote.

One question raised by these findings is why content from political actors is actually able to stimulate participation among the electorate. One reason might be that messages from political actors contain a clear call for actions, for example, to attend an event or share content on social media. Studies analyzing the content of political social media posts in regards to their activating elements are sparse, but research has found that mobilizing voters is a core goal of social media campaigns, rather than branding candidates and parties (Enli & Skogerbø, 2013) or discussing political issues with voters (van Dalen et al., 2015). These calls for actions may be an especially triggering factor for people’s participation, as described by Verba et al. (1995). Despite this plausible interpretation, future research should investigate the social media content of political actors more closely.

It is furthermore noteworthy that traditional news media seem to have a limited ability to mobilize campaign activity among the electorate in general. A reason for the minimal effects we find may be traditional legacy media’s more balanced coverage of political issues (Bruns, 2011), especially in a democratic corporate media system like Denmark (Benson, Blach-Ørsten, Powers, Willig, & Zambrano, 2012). In turn, content from blogs or political social media pages may contain clearer political undertones; exposure to such partisan media content has shown to mobilize citizens in election campaigns (e.g. Stroud, 2010). In our case, a certain level of partisanship or a political opinion may have been necessary for people to participate in the campaign. An explanation for the small mobilizing effects of legacy media, hence, could be that they publish less polarizing and opinionated content than other digital information sources.

**Limitations**

Our findings have to be read against a number of limitations. First, our study set out to test if first-time voters are special when it comes to media use and its effects. However, our data do not allow us to answer whether the findings of this study resemble a life cycle or cohort effect (Kaid et al., 2007). We cannot be certain about whether the examined patterns of media use and effects come about because of voters’ very young age or the fact that it is their first election campaign as potential voters. It is possible that political information usage patterns change when today’s first-time voters cast their votes later in life. However, this generation of citizens shows the first fully developed behavior of digital media usage when they enter the political system. The decreasing relevance of traditional news media, the prominence of social media, and the direct contact between voters and political actors are therefore likely to persist in their information routines. Of course, we cannot rule out that parts of our results are attributable to first-time voters’ curiosity about their first election. It remains to be seen if these patterns continue when they vote next time.

Second, our study uses an innovative design which attempts to decrease respondents’ memory bias and allows us to ask about a granular distinction of different media sources and content received on social media. Because only 96% of the Danish population have Internet access and use smartphones (Danmarks Statistik, 2016), we cannot generalize from our data to the general population. Furthermore, using panel data and especially a smartphone-based diary study that relies on frequent participation by the respondents, comes at the expense of panel attrition and results in potential sample deviations. We found unexpectedly high exposure to content from political actors in their media diet. This finding has to be interpreted with caution. It arises during an election campaign were attention to politics is extraordinarily high in Denmark. It only applies to respondents who were exposed to political content via social media in the first place and has to be read against the special sample of this study. We deal with respondents who were slightly more interested in politics, had a higher education, and were slightly older compared to our main panel’s
sample with representative characteristics for the Danish population. Furthermore, they were dedicated enough to participate at least four out of 11 days in our smartphone-based measurement. However, we do not find sample biases in terms of general social media use, nor does our additional analysis (Appendix A) suggest that our respondents are overly politically engaged on social media in non-election times. We nevertheless acknowledge that it is still possible that respondents were not fully able to recall their exposure to different content types correctly. Due to the strong focus on politicians and parties in the media, they possibly overreported their exposure to content from political actors as a source of news on social media. However, a recent study confirmed the high visibility of Danish political actors on social media (Soerensen, 2016) and another one shows that 61% of the Danes used social media during the election campaign (Hoff, J., Linnaa Jensen, J., & Klastrup, L., 2016). Nevertheless, our sample is not fully representative of the Danish population and the mentioned deviations and particularities have to be taken into account when interpreting the results. In connection, we need to mention that our models control for a number of variables (i.e. age, education, and political interest) that have been shown to be relevant predictors of political engagement (e.g. Bakker & de Vreese, 2011; Dimitrova, Shehata, Strömbäck, Nord, 2014; Shehata, Ekström, & Olsson, 2016; Xenos et al., 2014). But since other variables could be relevant predictors as well, our results are subject to omitted variable bias.

Lastly, the mobilizing media effects we find – especially in regards to content from political actors – is subject to potential endogeneity. It may well be that more politically active citizens are also more likely to follow politicians on social media in the first place. In this case, direct political communication would be the outcome of participation and not its predictor. This challenge to a causal argument is addressed by including, as a control in our analytical model, the intention to participate people had at the campaign begin. However, due to the lack of a lagged dependent variable or panel data, no final statement about the causality of the detected effects can be inferred.

This study finds a low relative importance of offline and online news in first-time voters’ campaign media diet, a limited exposure to legacy news sources on social media, and few instances of exposure to content from friends and followers. If we connect indications with the dominant position of content from political actors, it appears likely that social media platforms create a polarized picture for first-time voters during election campaigns. The most important reason that content from political actors is so prominent in their news diet is that they choose to receive this content. This selection may be due to a certain understanding of citizenship, i.e. the duty to keep informed – using election-related content on social media. While their intentions may be good, it is unlikely that first-time voters thereby ‘liked’ or followed a broad spectrum of parties or candidates, leading to polarized exposure (Prior, 2013). However, the flux in a digital media environment creates a rather situational involvement (Kushin & Yamamoto, 2010) with political content, compared to a more stable, habitual exposure to traditional media (Diddi & LaRose, 2006). So if there is an easy way into filter bubbles for young voters, there might also be an easy way out.

This study shows how news media’s supremacy in informing the electorate – both offline but also on social media – is challenged by new information providers. It is noteworthy that the youngest generation of voters subscribes equally strongly to political actors and news media in their campaign social media diet. Our study has shown that new political information sources relate to young voters’ campaign participation. Ultimately, the new information environment they grew up in, may also affect their vote decision and thereby the fundament of a democratic society (Ohme et al., 2018). Future research should examine whether the usage patterns found in our and previous studies persist over a longer period and whether political actors gain ground as important sources in voters’ news diet. In any case, the competition for who will be informing future voters is likely to become more fierce.
Notes

1. This does not necessarily address diversity in regard to political leanings (potentially quite the opposite, see the ‘filter bubble’ discussion: Flaxman, Goel, & Rao, 2016), but citizens may receive information from a greater number of sources in general.

2. Of voters 23 years or older, about 1% reported not having the right to vote in the last national election. This can be due to their citizenship status, since only Danish citizens are allowed to vote in national elections.

3. Of the 13,700 people, 12,000 were recruited via national register data and another 1,700 were recruited via the pollster’s database.

4. Goodness of fit tests were used to test for sample differences between the original sample (N = 9125) and study participants (n = 1108). Significant differences for the study’s sample were found for income (>0.78, p < .001, Min = 1, Max = 18), age (>2.6 years, p < .001), political interest (>0.6, p < .001, Min = 0, Max = 10), mobile Internet use (>5.8%, p < .001) while no significant differences between the original sample and the participants of the study exist for gender (n.s.) and the amount of social media use (n.s.)

5. The estimate sets the days of reported exposure in relation to the days of participation in the diary surveys. This means that although respondents may have reported the same amount of exposure, they will receive a different estimate depending on the frequency of taking the surveys. We believe that using this ratio gives a more realistic estimate than using raw scores. Ultimately, both approaches are not fully suited to detect the specific differences in media exposure between individuals.

6. To test if the high relevance of content from political actors was the result of a sample strongly following political actors on social media in the first place and not a campaign effect, we compared the news diets of both groups during election times with non-election time. Appendix A shows that the amount of direct political communication strongly increases during the election campaign while the amount of content from news media and friends decreases.

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Notes on contributor

Jakob Ohme is a postdoctoral researcher in the Digital Communication Methods Lab at the Amsterdam School of Communication Research (ASCoR), University of Amsterdam. His research interests center around political communication effects, the impact of the digital media environment on political behavior and attitudes, and the development of new methodological approaches in political communication research. As part of the Digital Communication Methods Lab at ASCoR, he focuses on effects of mobile media exposure by employing mobile methods, such as experience sampling studies, mobile eye-tracking and the use of specific survey apps.

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