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Kristoffer Holt, Adam Shehata, Jesper Strömbäck and Elisabet Ljungberg

Mid Sweden University, Sweden

Abstract

This article investigates how media use differs across age groups- and whether this matters for people's inclination to participate politically. More specifically, the study investigates the impact of social media use for political purposes and of attention to political news in traditional media, on political interest and offline political participation. The findings, based on a four-wave panel study conducted during the 2010 Swedish national election campaign, show (1) clear differences in media use between age groups and (2) that both political social media use and attention to political news in traditional media increase political engagement over time. Thus, this study suggests that frequent social media use among young citizens can function as a leveller in terms of motivating political participation.

Keywords

Media use, political participation, social media, young citizens

Introduction

A key issue in political communication is the relationship between patterns of media use, political motivation and political participation. A core assumption is that in a democracy, people should follow news and current affairs, be politically interested and participate in political processes (Habermas, 1989). Major differences between groups of people in

Corresponding author:

Kristoffer Holt, Department of Information Technology and Media, Mid Sweden University, Holmgatan 10, Sundsvall, S-851 70, Sweden. Email: kristoffer.holt@miun.se terms of media use and political motivation and participation might violate the norm of political equality (Dahl, 1998, 2006). Therefore, evidence suggesting increasing differences between younger and older citizens in terms of news media consumption and political participation has raised concerns about increasing political inequalities (Henn and Foard, 2012). Delli Carpini (2000) has pointed out that, compared to older generations or young adults from previous eras, the young adults of the year 2000 were less likely to: trust fellow citizens, be interested in politics, feel obligation in association with citizenship, be knowledgeable about the substance of politics, read newspapers or watch the news, register to vote, or to engage in any civic or political cause beyond voting. Compelling evidence from a range of democracies also shows that voting turnout is lower among younger citizens (Delli Carpini, 2000; Henn and Foard, 2012; Kimberlee, 2002; Mesch and Coleman, 2007).

Concerns about rising political generational inequalities are further fuelled by evidence of a decrease in young people's traditional news media use (Lenhart et al., 2010; Wattenberg, 2004). Since most research suggests that following traditional news media has positive effects on political participation (Boulianne, 2009; Delli Carpini, 2004; Norris, 2000; Strömbäck and Shehata, 2010), the age gap in news media attention may translate into increasing differences in political motivation and participation.

On the other hand, research suggests that younger citizens are more prolific users of digital media than older citizens (Lenhart et al., 2010; Loader, 2007; Norris, 2002a). Since use of digital media has been found to have positive effects on political participation (Boulianne, 2009; Lupia and Philpot, 2005; Xenos and Moy, 2007), this suggests that younger citizens' greater use of social media may compensate for the decline in their use of traditional news media (Palfrey and Gasser, 2008). In essence, social media may function as a leveller of generational differences in political participation.

Most research on age and the effects of digital media use has however focused on the effects on younger citizens only, and there are only few studies *comparing* the effects of using *different* kinds of *both* digital and traditional media among younger *as well as* older citizens (Bakker and de Vreese, 2011; Dimitrova et al., 2011; Lee et al., 2012). Hence, our knowledge about whether social media use may *compensate* for younger citizens' more limited attention to traditional news media – compared to that of older citizens – is limited.

Against this background, the main purpose of this study is to investigate age and the effects of news media attention and social media use for political purposes, with a particular focus on whether the use of social media for political purposes may function as a leveller of political interest and participation between younger and older citizens. More specifically, we will test the hypothesis that social media mobilize younger citizens, while traditional media mobilize older citizens, and that this holds true with respect to both political interest and participation. By using panel data, we are able to investigate the causal – and not just correlational – relationship between media use, political interest and political participation.

Political engagement and media use

Issues related to the relationship between various forms of political engagement, on the one hand, and media use, on the other, have been at the centre of media and

communication research for a long time. One of the major conclusions from these studies is that there are no universal effects of media use on political engagement across all citizen groups. Rather, the strength and direction of the relationship depends on what media are used, the personal motivations behind this usage and, finally, the levels of use among different groups (Boulianne, 2009; Dimitrova et al., 2011; Norris, 2000). Furthermore, the relationship between media use and political engagement is also contingent upon the specific form of engagement considered. In this article we focus on two aspects of political engagement – interest and participation. Political interest is a motivational component of engagement, defined by Lupia and Philpot as 'a citizen's willingness to pay attention to political phenomena at the possible expense of other topics' (Lupia and Philpot, 2005: 1122), and by Van Deth (2000: 119) as 'the degree to which politics arouses a citizen's curiosity'. Interest in politics can be considered a motivational prerequisite for participation, and also a crucial variable for understanding differences in information processing, learning and opinion formation (Delli Carpini and Keeter, 1997; Strömbäck and Shehata, 2010). Participation, on the other hand, refers to a behavioural component of political engagement. In this study, we build on the common definition of political participation as activity 'that has the intent or effect of influencing government action – either directly by affecting the making or implementation of public policy or indirectly by influencing the selection of people who make those policies' (Verba et al., 1995: 38).

Our main hypothesis is that use of social media, for political purposes, mobilizes younger groups of citizens while traditional media mobilize older citizens, and that these influences are causal, not just correlational. This calls for an analysis of (1) agerelated differences in the use of social and traditional media as well as (2) the effects of these usages on political engagement. Based on the framework developed by Sotirovic and McLeod (2009), we refer to these two attributes of media impact on engagement as dosage (differences in levels of use) and potency (the effect of use on interest and participation) respectively. This general hypothesis is here broken down into several sub-hypotheses concerning specific relationships between the variables of interest. We focus first on age-related differences in dosage, i.e. how younger and older citizens vary in the amount of use of traditional and online media, and then turn to previous research focusing on the potency of media effects.

Differences in the use of traditional and online media

One reason why online and traditional media may have differential consequences for younger and older citizens concerns their different media use habits. Several studies have shown that while traditional news media use is positively related to age, the opposite is true for Internet use. For instance, research has repeatedly shown that teens and young adults are more likely to be active and communicative on the Internet, compared to older generations. In the EU27 as of 2010, 80% of people aged 16–24 used the Internet to post messages to chat sites, blogs and social networking sites, while this is true of only 42% of people between 25 and 54 years old, and 18 % of those aged 55–74 (Eurostat, 2010). Similarly, a Pew study revealed that 73% of American online teens were active users of social network sites (SNS), compared to 47% of online adults. The share of teens who share and remix content online is also significantly higher than for older age groups (Lenhart et al., 2010). Therefore, a key difference between younger and older

generations seems to be how active they are in their interaction with people and content online. Hence, we hypothesize that younger citizens are more frequent users of social media for political purposes than older citizens:

- H1: Young citizens are more frequent users of social media than older citizens.
- H2: Young citizens are less frequent users of traditional news media than older citizens.

The media use-political engagement relationship

Many studies have attempted to explain what causes some young citizens to participate politically, while others do not participate (Bakker and de Vreese, 2011; Bennett, 1997; Buckingham, 2008; Buckingham and Willett, 2006; Livingstone, 2007; Livingstone et al., 2005; Loader, 2007; Masters et al., 2004; Mesch and Coleman, 2007; Olsson and Dahlgren, 2010; Zukin et al., 2006). One key issue that has been widely discussed is the extent to which various forms of media use have a causal impact on political engagement. Several studies have in fact found consistent positive relationships between traditional news media use – such as television news exposure and newspaper reading – and different aspects of political involvement (Dimitrova et al., 2011; Newton, 1999; Norris, 2000; Strömbäck and Shehata, 2010). Correspondingly, since the arrival of the Internet, many assumptions have been made about how it may reshape the conditions for participation and stimulate active partaking in politics (Lévy, 1997; Lévy and Council of Europe, 2001; Rheingold, 2002).

However, research into the actual outcome has mostly failed to demonstrate clear signs of increased or improved participation as a result of the Internet becoming more incorporated into people's lives (Boulianne, 2009; Coleman and Blumler, 2009; Dahlberg, 2007; Dahlgren, 2009; Hindman, 2009; Holt and Karlsson, 2011; Papacharissi, 2002; Scheufele and Nisbet, 2002; Ward et al., 2003; Wojcieszak and Mutz, 2009). In a recent meta-study, however, investigating existing research about the Internet and its effects on political engagement, Boulianne (2009) found that while the effects found in different studies may be small, they are mostly positive, and they seem to be increasing across time.

Furthermore, the advent of social media (Web 2.0) has led to renewed hopes that the technological ease of connecting with others and of sharing content online would ignite political engagement both on- and offline (Bruns, 2008; Chu, 2010; Downey and Fenton, 2003; Jenkins, 2006). However, this optimism has also invited critical remarks, and scholars have emphasized the need to go beyond assertions towards empirical research for a fuller understanding of how social media influence democratic participation (Hindman, 2009; Rebillard and Touboul, 2010; Van Dijck and Nieborg, 2009). Bakker and de Vreese suggest that studying young people's 'specified forms of Internet use' will shed light on what makes young people participate (Bakker and de Vreese, 2011). While Scheufele and Nisbet (2002: 55) found that respondents who mainly used the web for entertainment purposes were 'less likely to feel efficacious about their potential role in the democratic process and also knew less about facts relevant to current events', Bakker and de Vreese (2011) found a positive relation between other, communicative and non-informational, forms of Internet use

and political participation among young citizens. Use of interactive web activities, like chat-forums, was strongly related to political participation among young people (Bakker and de Vreese, 2011). In a study of blog readers, Gil de Zúniga et al. (2009) found, however, that only print and TV news use predicted offline political participation, while use of online news did not.

Correlations between certain forms of media use, on the one hand, and political engagement, on the other hand, are however not sufficient for making strong empirical claims about causal relations (Boulianne, 2011). More specifically, a positive relationship between media use and participation could also be the result of (1) a spurious relationship due to a third common factor, or (2) reversed causation, whereby those citizens who are politically active are more likely to seek out additional information from various media sources. To rule out such alternative explanations, we will in this study make use of panel data, which will allow us to exercise a stronger – but not full – control over the time-order criteria of causality.

The key argument suggested by our overall hypothesis holds that attention to political news in traditional media, as well as use of social media for political purposes, has a causal effect on interest and participation. We expect these two forms of media use to exert a causal impact on political engagement due both to the type of content involved as well as the level of personal interest assumed to underlie these types of media use. According to Norris's virtuous circle theory, political information provided by the media promotes civic engagement through increasing political knowledge and awareness among citizens (Norris, 2002b: 11). Eveland (2005) furthermore argued that attentive forms of news media use – in contrast to mere exposure – should be related to participation in public life, because they increase understanding of the political 'implications' of the news (Eveland, 2005: 234). Similarly, social media use for political purposes both exposes an individual to political information, and suggests a certain motivation to process this kind of content in the first place. Based on similar logic, Dimitrova et al. (2011) argued that a combination of site characteristics and personal motivations among the users shape the mobilizing potential of different websites – arguing that 'the primary function of social media is to connect and as well as involve and facilitate voter mobilization' (Dimitrova et al., 2011: 7; see also Lupia and Philpot, 2005).

Even though panel studies that go beyond cross-sectional correlations between online media and political engagement are few, there are important exceptions. For instance, Boulianne (2011) recently found, based on panel data, that use of online news media had a positive casual effect on political interest, concluding that 'use of online news sources transforms people into interested and ... engaged citizens to a greater degree than online news serves as a tool for those already interested in politics' (Boulianne, 2011: 157). Focusing on the impact of traditional news media, Strömbäck and Shehata (2010) similarly concluded that there are causal but reciprocal positive relations between attention to political news and political interest. Looking at various forms of online media using panel data, Dimitrova et al. (2011) found that use of party websites and social media for political purposes had a causal impact on offline political participation. Furthermore, a recent panel study of media use among American adolescents revealed consistent positive effects of news and political discussion online on civic and political participation, concluding that the 'findings underscore the potential of digital media, especially blogs

and other interactive media outlets, to mobilize young people into more active engagement with civic and political life' (Lee et al., 2012: 19; see also Kahne et al., 2012).

Consequently, we expect that attention to political news in traditional media, as well as use of social media for political purposes, will have positive effects on political interest and offline participation:

- H3: Attention to political news in traditional media will have a positive effect on political interest.
- *H4*: Use of social media for political purposes will have a positive effect on political interest.
- H5: Attention to political news in traditional media will have a positive effect on offline participation.
- *H6*: Use of social media for political purposes will have a positive effect on offline participation.

To the extent that the six hypotheses outlined above are supported we can conclude that traditional news media and social media serve different functions when it comes to influencing political interest and participation across age groups. While traditional news media may increase levels of engagement primarily among older segments of the population, social media might stimulate engagement among younger citizens.

Methodology and data

To test the hypotheses a panel study was conducted in four waves during the 2010 Swedish election campaign. The study was conducted by the Centre for Political Communication Research at Mid Sweden University, in cooperation with the polling institute Synovate. The sample was drawn using stratified probability sampling from a database of approximately 28,000 citizens from Synovate's pool of web survey participants. The participants included are recruited continuously using both random digit dialling and mail surveys based on random probability samples. Approximately 5% of those who are initially contacted and invited agree to be part of this pool of respondents. As the invitations are not done for this specific study, but rather for the purpose of doing market research, the common bias towards politically interested citizens is to some extent reduced.

The survey is based on a sample of 4010 respondents aged 18–74 from this pool, stratified by gender, age, county size, political interest and Internet use, in order to be as representative of the Swedish population within this age span as possible. Respondents were asked to complete a web survey four times during a period of approximately five months leading up to the election. Wave 1 of the panel took place in May (3–20 May); wave 2 in mid-June (14–23 June); wave 3 in mid-August (16–23 August); and wave 4 immediately after election day (20–27 September). In order to utilize the strength of the panel data, the regression analyses are based on respondents who completed all four questionnaires, resulting in a cooperation rate of 35% (COOP2, AAPOR).

Measures

This study estimates the effects of social media use and of attention to political news on traditional mass media channels on political interest and offline political participation, controlling for several key, background, political and media variables.

Offline political participation. Our dependent variable is an index of participation variables measured in the last survey round. Respondents were asked whether, and to what extent, they engaged in eight predefined political activities during the election campaign. These included visiting a campaign rally, attending a political meeting, contacting a politician, trying to convince others to vote for a specific party, etc. These eight three-level items were summed to form an additive index of offline participation ranging from 0 (taken part in no activity during the election campaign) to 16 (taken part in eight activities several times during the election campaign) (Cronbach's alpha = 0.72).

Political interest. Our second dependent variable is based on two items measured in the third wave of the panel, tapping the respondents' level of interest in politics as well as in the election campaign, measured as two four-level variables ranging from 1 (not interested at all) to 4 (very interested) (Cronbach's alpha = 0.86).

Social media. Use of social media was measured in the first panel wave using six survey items that focus on political use of social media. Respondents were asked how often they had engaged in several social media activities during the last month. These activities included reading a blog about current affairs or politics, writing texts on a personal blog about current affairs or politics, commenting/discussing current affairs issues or politics on the Internet, or following a politician or political party on either Twitter, Facebook or YouTube. As a principal components analysis showed that these six activities all loaded on a single dimension, they were summed to form a social media index, ranging from 0 to 24 (Cronbach's alpha = 0.77).

Attention to politics in traditional news media. Attention to politics in traditional news media is based on three survey items measured in the first, second and third panel wave, each tapping the amount of attention respondents pay to news about politics on television, on radio and in dailies – ranging from 1 (no attention at all) to 5 (very close attention). These three measures were summed to form an additive index of attention to news about politics (Cronbach's alpha = 0.81).

Age. As a key independent variable in this study, age is an interval-level variable ranging from 18 to 74 with one-year increments. For descriptive purposes age will be categorized into four distinct age groups, based on the classification by Zukin et al. (2006).

Control variables. Each of the regression models estimated includes a number of key control variables. Apart from standard sociodemographic characteristics – such as gender, education and income – we use the strength of the panel design by also including a measure of prior political interest as well as past offline political participation measured in the

first wave of the panel study. Controlling for lagged values of the dependent variables in this way changes the interpretation of the coefficients to effects on *changes* in the dependent variable between panel waves (Finkel, 1995). These autoregressive panel models estimate the effect of social and traditional media on *changes* in political interest and offline participation during the election campaign. While this improves our ability to make stronger claims regarding causality compared to cross-sectional data, it does not once and for all solve this issue. It does, however, enable us to more closely analyse how patterns of media use and political engagement develop over time during the election campaign.

Results

To reiterate, the main purpose of this study is to investigate age and the effects of news media attention and social media use for political purposes, with a particular focus on whether the use of social media for political purposes may function as a leveller of political interest and participation between younger and older citizens. The findings will be presented in two steps. First, we present descriptive data on our main variables of interest. This will shed light on the first two hypotheses concerning differential media use patterns across age groups (dosage). Second, we test the four media effects hypotheses using autoregressive panel models (potency).

Table 1 presents descriptive statistics on the two dependent variables measured in the first panel wave – political interest and offline participation. Several of the findings confirm what is known from past research. For instance, political interest – measured both as interest in 'politics in general' and as interest 'in the election campaign' – increases with age. Approximately 79% of citizens between 65 and 74 years old say they are 'very' or 'somewhat' interested in politics, while only one out of two among the youngest citizens express this level of political interest. A similar pattern is evident with respect to participation. Five of the eight activities are more common among older citizens. The other three – signing a petition, arguing for one's opinion and participating in a demonstration – are more common among the young.

Turning to the first two hypotheses, Table 2 presents data on media use patterns. While hypothesis 1 stated that young citizens would be more frequent users of social media than older citizens, hypothesis 2 predicted that young citizens would be less frequent users of traditional news media than older citizens. Both these hypotheses are supported by the data. The top panel of Table 2 shows that each of the social media uses is more common among younger citizens. The age gap is larger for some forms of social media use though, such as reading a blog about politics and current affairs (33% among the youngest group compared to 21% in the oldest group). The additive social media use index confirms the overall pattern based on the separate variables: the youngest groups score 1.08 on this scale while the oldest group scores 0.56 - a statistically significant difference, based on an independent samples t-test (t = 5.08, p < .000). Attention to political news in traditional mass media displays a reversed relationship to age, as expected. Irrespective of media type, older citizens pay significantly more attention to political news. For attention to political news on television, the difference between the youngest and the oldest citizens is 2.76 on the 0-12 scale (t = -13.81, p < .000), while the

Table 1. Political interest and offline participation by age (in percentages).

	18-33 years	34-45 years	46-64 years	65-74 years
Political interest (wave I) - percentage 'very' or 'somewhat' interested				
Interest in politics	50.9	49.1	56	78.6
Interest in the election campaign	50.4	46.5	55.1	73.9
Offline participation (wave 1) – at least once during the last 12 months				
Signed a petition	35.8	35.8	32.3	30.5
Contacted a politician	5.9	8.5	11.6	13.5
Written a letter to the editor	4.4	6.8	11.3	12.3
Argued for your opinion in a political discussion	36.1	31.7	31.7	27.9
Contacted mass media	3.4	5.8	7.9	8.5
Participated in a demonstration	7.2	5.0	5.1	5.3
Attended a political meeting	6.2	5.8	9.4	13.5
Tried to convince others to vote for a political party	6.2	5.8	9.4	13.5
N (unweighted)	601	418	967	541

Notes: Total N = 2527. The sample is weighted on gender, age, type of residence, education, political interest, general Internet use and voting choice in the 2006 national election.

corresponding difference is 2.48 for newspapers (t = -11.85, p < .000) and 2.63 for political radio news (t = -11.51, p < .000). In sum then, younger citizens more frequently use social media for political purposes while older citizens turn their attention to traditional media for political news.

Table 3 presents results speaking to hypotheses 3–6 regarding the effects of social media use and attention to political news in traditional news media on political interest and participation, which concerns the 'potency' side of the mobilization argument (Sotirovic and McLeod, 2009). By using the lagged dependent variables on the right-hand side of the regression equation we estimate how media use affects changes in political interest (model 1) and participation (model 2) over time, while also controlling for several other background variables.

Hypotheses 3 and 4, predicting positive effects of attention to political news and use of social media for political purposes on political interest respectively, are tested in the first regression model presented in column 1. Both forms of media use increase political interest during the election campaign. The more people use social media for political purposes, and the more they pay attention to political news in traditional news media, the more their levels of political interest increase during the election campaign. Thus, both hypotheses 3 and 4 are supported by the data.

Finally, hypotheses 5 and 6 similarly predicted that social media use for political purposes and attention to political news in traditional media would have positive effects on offline participation. Both these hypotheses are supported as well, as can be seen by the

Table 2.	Traditional and	d social medi	a use hv age	(percentages and	mean values)
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	18-33 years	34-45 years	46-64 years	65–74 years
Social media use (wave I) -	at least once dur	ing the last month	1 (%)	
Read blog about politics and current affairs	33.1	30.6	19.4	21.4
Wrote text about politics or current affairs on my own blog	5.7	2.2	2.0	2.1
Commented or discussed politics or current affairs on the Internet	13.8	12.3	8.1	7.0
Followed a politician or party on Twitter	3.6	3.3	1.8	1.5
Followed a politician or party on Facebook	7.7	6.3	3.9	5.0
Followed a politician or party on YouTube	4.2	3.6	2.5	2.9
Social media index (0–19, mean values)	1.08	1.06	0.59	0.56
N (unweighted)	601	418	685	418
Attention to political news	in traditional r	nedia (waves I	-3) – mean value	es
Television news (0–12, α = 0.90)	5.34	5.80	6.59	8.10
Newspapers (0–12, α = 0.89)	5.23	5.80	6.10	7.71
Radio (0–12, α = 0.89)	3.58	4.29	5.02	6.21
N (unweighted)	357	256	685	418

Notes: Total N = 2527. The sample is weighted on gender, age, type of residence, education, political interest, general Internet use and voting choice in the 2006 national election. Each measure of attention to political news is an additive index based on responses to the same question in waves 1, 2 and 3.

final column of Table 3. Thus, both political social media use and political news attention increase offline participation, even when controlling for prior levels of offline participation.

To illustrate the main findings of the study, Figure 1 summarizes the differential mobilization across age groups based on the results of the regression models in Table 3 as well as the previously presented data on media use differences. Thus, Figure 1 accounts both for the size of the media effects (potency) as well as differences in usage (dosage), based on conditional level importance estimates (Achen, 1982) – where the *y*-axis represents the size of the impact measured in units of the dependent variable. The two upper graphs illustrate the influence of traditional media on interest and participation across age groups, clearly capturing the stronger influence of traditional media among older citizens. The lower graphs show the opposite impact of social media use, where younger citizens are mobilized to a larger extent than older. Comparisons of the absolute size of

Table 3. Effects of media use on political interest and offline participation (OLS).

	Political interest	Offline participation
Gender (ref. 'women')	00 (.04)	32** (.10)
Age	01** (.00)	02*** (.00)
Education (ref. 'elementary school')	, ,	,
High school	.01 (.07)	.09 (.16)
University	.05 (.07)	00 (.17)
Income	01 (.01)	04 (.03)
Political interest _{t-3}	.51*** (.02)	.14** (.05)
Offline participation, 3	.02** (.01)	.49*** (.02)
Attention to political news in traditional	.07*** (.00)	.03** (.01)
media _{t-3}	,	,
Social media _{t-3}	.04** (.01)	.20*** (.03)
Adjusted R ²	.72	.54
N	1716	1387

Note: Estimates are unstandardized OLS coefficients with standard errors in parentheses. *p < .05, **p < .01, ***p < .001.

the traditional news and social media effects are not possible however, due to differences in question wordings and scale construction between the two media use measures. Rather, the figure illustrates the differential impact of traditional and social media use among various groups. It is also important to note that these differential effects are due to variations in dosage – levels of media use – assuming that the potency of the media effects are constant across age groups.

Conclusions

In a recent overview of the research field, Mossberger (2009: 175) argued that the 'greater presence of young people in internet politics increases political participation among the young, and if these trends are sustained, they may result in greater overall levels of political interest and activity in the future'. The present study has put this claim to a critical test by investigating age and the effects of news media attention and social media use for political purposes, focusing particularly on whether the use of social media for political purposes may function as a leveller of political interest and participation between younger and older citizens. Overall, we find substantial support for the idea of such differential mobilization effects across age groups.

In sum, our results show that there are, indeed, differences between younger and older citizens in terms of both our dependent variables – political interest and offline political participation. Both political interest and offline political participation increase with age. The only exceptions are signing a petition, participating in a demonstration or arguing for one's opinion. These, overall more expressive, political activities are more common among younger citizens than older. Still, the general pattern is that political

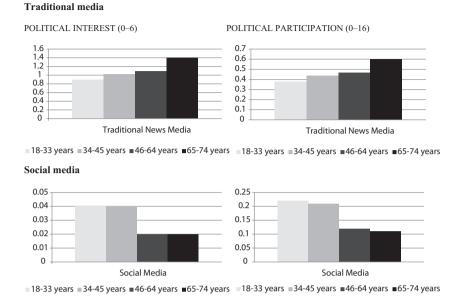


Figure 1. The influence of attention to political news and use of social media for political purposes on interest and participation.

Notes: The bars represent conditional level importance estimates (Achen, 1982), where the regression coefficients for attention to political news and use of social media for political purposes from Table 3 have been multiplied by the corresponding mean value of these variables within each age group. The y-axis represents the size of the impact measured as units of the dependent variable.

interest and participation increase with age, and reach the highest levels in the oldest age group. There are also clear differences between younger and older groups of citizens in terms of attention to political news in traditional news media and of using social media for political purposes. The youngest group uses social media for political purposes significantly more often than any of the older age groups, while the reverse pattern holds true for attention to traditional news media such as television news, newspapers and radio. The consistency of this pattern suggests a clear gap in terms of patterns of media use.

Our main question is related to the effects of different media uses on political interest and participation across age groups. If only traditional news media use had positive effects on political interest and participation, then the different patterns of media use between younger and older groups would imply increasing gaps in political interest and participation. The results, however, show that both attention to political news in traditional media and use of social media for political purposes have positive effects on both political interest and offline political participation. These positive effects are striking since we use panel data to control for prior political interest and offline participation. Hence, the results show not only positive correlations, but also indicate that attention to traditional news media as well as use of social media for political purposes can increase

political interest and offline political participation over time. However, even though the use of panel data, by enabling increased control over the time-order criteria, improves our ability to make inferences with respect to causality, there are reasons for being cautious against too strong conclusions in this regard. The specific election campaign setting is related to a certain amount of mobilization in the first place, increasing overall levels of political interest, attention, trust and engagement among citizens (Strömbäck and Johansson, 2007), making strict empirical control over the causal order more difficult. This is relevant since we have specifically investigated the effects of attention to political news in traditional news media and the use of social media for political purposes. Even though we have controlled for prior political interest, it can be assumed that people would not pay much attention to political news in traditional news media or use social media for political purposes save for some initial level of political interest. In this respect, a certain level of political interest functions as a necessary prerequisite for further attention to political news in traditional news media or use of social media for political purposes, which, in turn, have a positive and additional influence on political interest and offline political participation.

Furthermore, we have measured effects of media use on political participation according to a traditional definition of participation (Verba et al., 1995). However, the 'cultural turn' in research on democracy, participation and online media has suggested a need for reconsidering traditional definitions of political participation (Coleman, 2007; Olsson and Dahlgren, 2010). Various forms of online expression of political interest and participation are not easily included into traditional notions about what it means to participate politically. Activities that usually define political participation, like voting, polling, deliberating and joining activist movements, are still central in the discussion, but 'may not make up an exhaustive list' (Bakardjieva, 2010). Managing a Facebook profile, uploading videos on YouTube, or discussing popular TV shows in social networks may constitute or inspire political expression of sorts that are often overlooked in traditional research about political participation (Buckingham, 2008; Coleman, 2007; Jenkins, 2006; Livingstone, 2007; Loader, 2007; Olsson and Dahlgren, 2010; Zukin et al., 2006). Thus, Coleman notes, talk about a politically distracted younger generation that will vote 'on televised popularity polls while refusing to meet its civic obligation at the ballot box' may be representative of a narrow view of political participation (Coleman, 2007: 184).

Although an analysis that would efficiently operationalize a broader notion of political participation falls outside the scope of this study, we argue that finding a causal connection between political social media use (which could be viewed as something that should be included in a broader notion of political participation) and offline participation contributes to this discussion by shedding light on whether newer forms of political involvement online might increase the likelihood of traditionally defined participation among younger citizens.

This discussion about political participation in the context of new media underscores the most important findings of this study: using social media for political purposes does have a positive influence on political interest and offline political participation in a similar fashion that paying attention to political news in traditional news media has. Although younger people pay less attention to political news in traditional media than older people, they simultaneously are more frequent users of social media for political purposes.

Hence, younger people's greater use of social media for political purposes may compensate for their lower levels of attention to political news in traditional news media. In this respect, social media could serve as a leveller of political interest and offline political participation between younger and older citizens. In sum, our results suggest that there are perhaps fewer reasons to worry than suggested by many accounts lamenting the declining use of traditional news media.

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References

Achen C (1982) Interpreting and Using Regression. Newbury Park, CA: Sage.

Bakardjieva M (2010) The Internet and subactivism. In: Olsson T and Dahlgren P (eds) *Young People, ICTs and Democracy*. Gothenburg: Nordicom, pp. 129–145.

Bakker TP and de Vreese CH (2011) Good news for the future? Young people, internet use, and political participation. *Communication Research* 38(4): 451–470.

Bennett SE (1997) Why young Americans hate politics, and what we should do about it. *PS: Political Science and Politics* 30(1): 47–53.

Boulianne S (2009) Does internet use affect engagement? A meta-analysis of research. *Political Communication* 26(2): 193–211.

Boulianne S (2011) Stimulating or reinforcing political interest: Using panel data to examine reciprocal effects between news media and political interest. *Political Communication* 28(2): 147–162.

Bruns A (2008) Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage. New York: Peter Lang.

Buckingham D (2008) Youth, Identity, and Digital Media. Cambridge, MA: MIT Press.

Buckingham D and Willett R (2006) Digital Generations: Children, Young People, and New Media. Mahwah, NJ: Lawrence Erlbaum.

Chu D (2010) In search of prosumption: Youth and the new media in Hong Kong. *First Monday* 15(2-1). Available at: firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2772.

Coleman S (2007) How democracies have disengaged from young people. In: Loader BD (ed.) *Young Citizens in the Digital Age: Political Engagement, Young People and New Media.* New York: Routledge, pp. 166–185.

Coleman S and Blumler JG (2009) *The Internet and Democratic Citizenship: Theory, Practice and Policy*. Cambridge: Cambridge University Press.

Dahl RA (1998) On Democracy. New Haven, CT: Yale University Press.

Dahl RA (2006) On Political Equality. New Haven, CT: Yale University Press.

Dahlberg L (2007) Rethinking the fragmentation of the cyberpublic: From consensus to contestation. *New Media and Society* 9(5): 827–847.

Dahlgren P (2009) *Media and Political Engagement: Citizens, Communication, and Democracy*. Cambridge: Cambridge University Press.

Delli Carpini MX (2000) Gen.com: Youth, civic engagement, and the new information environment. *Political Communication* 17(4): 341–349.

Delli Carpini MX (2004) Mediating democratic engagement: The impact of communications on citizens' involvement in political life. In: Kaid LL (ed.) *Handbook of Political Communication Research*. Mahwah, NJ: Lawrence Erlbaum, pp. 395–434.

Delli Carpini MX and Keeter S (1997) *What Americans Know About Politics and Why it Matters*. New Haven, CT: Yale University Press.

- Dimitrova DV, Shehata A, Strömbäck J and Nord LW (2011) The effects of digital media on political knowledge and participation in election campaigns: Evidence from panel data. *Communication Research* 2 November.
- Downey J and Fenton N (2003) New media, counter publicity and the public sphere. *New Media and Society* 5(2): 185–202.
- Eurostat (2010) 80% of young internet users in the EU27 active on social media. No. 193/2010. Eurostat.
- Eveland WP (2005) Information processing strategies in mass communication research. In: Dunwoody S, Becker LB, McLeod DM and Kosicki GM (eds) *The Evolution of Key Mass Communication Concepts*. Cresskill, NJ: Hampton Press, pp. 217–250.
- Finkel SE (1995) Causal Analysis with Panel Data. Thousand Oaks, CA: Sage.
- Gil de Zúniga H, Puig-I-Abril E and Rojas H (2009) Weblogs, traditional sources online and political participation: An assessment of how the internet is changing the political environment. *New Media and Society* 11(4): 553–574.
- Habermas J (1989) The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society. Cambridge, MA: MIT Press.
- Henn M and Foard N (2012) Young people, political participation and trust in Britain. *Parliamentary Affairs* 65(1): 47–67.
- Hindman MS (2009) The Myth of Digital Democracy. Princeton, NJ: Princeton University Press.
- Holt K and Karlsson M (2011) Edited participation: Comparing editorial influence on traditional and participatory online newspapers in Sweden. *Javnost/The Public* 18(2): 19–36.
- Jenkins H (2006) Convergence Culture: Where Old and New Media Collide. New York: New York University Press.
- Kahne J, Middaugh E, Lee N-J and Feezell JT (2012) Youth online activity and exposure to diverse perspectives. *New Media and Society* 14(3): 492–512.
- Kimberlee RH (2002) Why don't British young people vote at general elections? *Journal of Youth Studies* 5(1): 85–98.
- Lee N-J, Shah DV and McLeod JM (2012) Processes of political socialization: A communication mediation approach to youth civic engagement. *Communication Research*. Epub ahead of print 28 February 2012.
- Lenhart A, Purcell K, Smith A and Zickuhr K (2010) Social Media and Mobile Internet Use Among Teens and Young Adults. Washington, DC: Pew Research Center.
- Lévy P (1997) Collective Intelligence: Mankind's Emerging World in Cyberspace. New York: Plenum Trade.
- Lévy P and Council of Europe (2001) *Cyberculture*. Minneapolis: University of Minnesota Press. Livingstone S (2007) The challenge of engaging youth online. *European Journal of Communication* 22(2): 165–184.
- Livingstone S, Bober M and Helsper EJ (2005) Active participation or just more information? *Information, Communication and Society* 8(3): 287–314.
- Loader B (2007) Young Citizens in the Digital Age: Political Engagement, Young People, and New Media. London: Routledge.
- Lupia A and Philpot TS (2005) Views from inside the net: How websites affect young adults' political interest. *Journal of Politics* 67(4): 1122–1142.
- Masters Z, Macintosh A and Smith E (2004) Young people and e-democracy: Creating a culture of participation. In: Traunmüller R (ed.) *Lecture Notes in Computer Science*. Berlin and Heidelberg: Springer, pp. 15–22.

- Mesch GS and Coleman S (2007) New media and new voters: Young people, the Internet and the 2005 election campaign. In: Loader BD (ed.) *Young Citizens in the Digital Age: Political Engagement, Young People and New Media*. New York: Routledge, pp. 35–47.
- Mossberger K (2009) Toward digital citizenship: Addressing inequality in the information age. In: Chadwick A and Howard PN (eds) *The Routledge Handbook of Internet Politics*. New York: Routledge.
- Newton K (1999) Mass media effects: Mobilization or media malaise? *British Journal of Political Science* 29(4): 577–599.
- Norris P (2000) A Virtuous Circle: Political Communications in Postindustrial Societies. Cambridge: Cambridge University Press.
- Norris P (2002a) *Democratic Phoenix: Reinventing Political Activism*. Cambridge: Cambridge University Press.
- Norris P (2002b) Tuned out voters? Media impact on campaign learning. In: Politeia Conference.
- Olsson T and Dahlgren P (2010) Young People, ICTs and Democracy: Theories, Policies, Identities, and Websites. Göteborg: Nordicom, University of Gothenburg.
- Palfrey J and Gasser U (2008) Born Digital: Understanding the First Generation of Digital Natives. New York: Basic Books.
- Papacharissi Z (2002) The virtual sphere. New Media and Society 4(1): 9–27.
- Rebillard F and Touboul A (2010) Promises unfulfilled? Journalism 2.0, user participation and editorial policy on newspaper websites. *Media, Culture and Society* 32(2): 323–334.
- Rheingold H (2002) Smart Mobs: The Next Social Revolution. Cambridge, MA: Perseus.
- Scheufele DA and Nisbet MC (2002) Being a citizen online. *The Harvard International Journal of Press/Politics* 7(3): 55–75.
- Sotirovic M and McLeod DM (2009) Media coverage of U.S. elections: Persistence of tradition. In: Strömbäck J and Kaid LL (eds) The Handbook of Election News Coverage around the World. New York: Routledge.
- Strömbäck J and Johansson B (2007) Electoral cycles and the mobilizing effects of elections: A longitudinal study of the Swedish case. *Journal of Elections, Public Opinion and Parties* 17(1): 79–99.
- Strömbäck J and Shehata A (2010) Media malaise or a virtuous circle? Exploring the causal relationships between news media exposure, political news attention and political interest. *European Journal of Political Research* 49(5): 575–597.
- Van Deth JW (2000) Interesting but irrelevant: Social capital and the saliency of politics in Western Europe. European Journal of Political Research 37(2): 115–147.
- Van Dijck J and Nieborg D (2009) Wikinomics and its discontents: A critical analysis of Web 2.0 business manifestos. *New Media and Society* 11(5): 855–874.
- Verba S, Schlozman KL and Brady HE (1995) *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, MA: Harvard University Press.
- Ward S, Gibson R and Lusoli W (2003) Online participation and mobilisation in Britain: Hype, hope and reality. *Parliamentary Affairs* 56(4): 652–668.
- Wattenberg MP (2004) The changing presidential media environment. *Presidential Studies Quarterly* 34(3): 557–572.
- Wojcieszak ME and Mutz DC (2009) Online groups and political discourse: Do online discussion spaces facilitate exposure to political disagreement? *Journal of Communication* 59(1): 40–56.
- Xenos M and Moy P (2007) Direct and differential effects of the internet on political and civic engagement. *Journal of Communication* 57(4): 704–718.
- Zukin C, Keeter S, Andolina M et al. (2006) A New Engagement? Political Participation, Civic Life, and the Changing American Citizen. Oxford: Oxford University Press.