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ABSTRACT

Is there a connection between increased use of digital media and changing patterns of political participation? This study tests how the use of online media for different purposes (*social interaction, creative expression, online news use, social media news use*) is related to three types of political participation. It examines whether mobilizing effects are partly indirect due to different understandings of citizenship (*dutiful, optional, individual, collective*) that may be fostered by digital media use. The study is based on a survey of a sample of the Danish population ($n =$ 1322), including data from two online survey waves and a smartphone-based media diary that documents respondents' social media use. Results indicate support for a new pathway to participation, but the relationship depends on whether citizens are socialized in a digital media environment.

The degree of political participation among the public is an important indicator of the quality of a democracy. While fewer people in Western societies see the importance of participation that involves memberships in and long-term commitments to political organizations (Dahlgren, 2013; Putnam, 2001), participation in short-term and case-oriented activities is on the rise. Activities such as consumerism, online political expression or urban gardening are increasingly recognized as forms of political participation (Stolle, Hooghe, & Micheletti, 2005; Theocharis, 2015; Theocharis & van Deth, 2018; Zukin, Keeter, Andolina, Jenkins, & Delli Carpini, 2006). The causes of these new participation patterns are still not fully understood; also, we do not know whether the increasing engagement in new forms of political participation comes at the expense of more established ways of being politically active. Hence, scholars increasingly replace the 'evergreen question': why are some people politically more active than others (Verba, Schlozman, & Brady, 1995), by the question: why do some people participate in political activities that are different from the activities engaging others?

One political participation fault line runs between generations. The share of US citizens, for example, who are active in a civic group is stable across different age groups. But for participation in new and especially digitally networked types of participation, the young by far outnumber older cohorts (Smith, 2013). The young citizens' strong interest in these less

established modes of participation and their willingness to engage in new political activities raises two important questions: First, what are the drivers behind this transformation of political participation? Second, what does this mean for the (future of) the political system?

Two lines of reasoning may in particular help explain differences in participation patterns between young and older citizens: First, citizens' increasing digital media use has been seen as conducive to new trends of political behavior (e.g., Bakker & de Vreese, 2011; Holt, Shehata, Strömbäck, & Ljungberg, 2013). Second, research has identified new norms of citizenship and connected them to alternative approaches to political participation (e.g., Bennett, 2008; Dalton, 2009; Thorson, 2015). While both lines of reasoning are valuable per se, this study argues that digital media use and new norms of citizenship may be connected. The argument that digital technology shapes civic norms and thereby affects citizens' political behavior has been made by a number of scholars (Bennett, Wells, & Freelon, 2011; Shah, McLeod & Lee, 2009; Xenos, Vromen, & Loader, 2014), but little empirical research has explored this relationship (see Copeland & Feezell, 2017 for a recent exception). Furthermore, the current, youngest generation is the first who was brought up completely in a digital media environment. It is therefore of core concern to understand whether the fact that 'digital natives' were socialized into politics in a different media environment than were older citizens (Prensky, 2001) results in different civic and political patterns of participation. Hence, the study investigates if digital media use contributes directly and indirectly – as facilitator of different understandings of citizenship – to variations in young and older citizens' political activity.

As suggested by previous research, differential media effects are explored by focusing on digital media use for *social interaction, creative expression, online news use* and *social media news use* (Dimitrova, Shehata, Strömbäck, & Nord, 2014; Ekström & Östman, 2015). These types of digital media use are subsequently linked to four distinct understandings of citizenship (i.e., *dutiful, optional, individual, collective*). Lastly, we study direct and indirect effects of media use and citizenship understanding on three types of political participation with close and looser relationships to politics (van Deth, 2014). The study relies on a two-wave panel survey among Danish citizens ($n = 1322$); digital media use is assessed with a smartphone-based diary survey across almost one year of time.

Political participation in a digital age

Identifying individual-level predictors of political participation is crucial for the understanding of democratic processes. For a long time, explanations for political activity focused on citizens' individual pre-dispositions, such as their socio-economic status and resources as well as specific mobilization practices of political actors (Abramson & Claggett, 2001; Verba et al., 1995; Verba & Nie, 1972). Based on research by Verba and Nie (1972) and others, who found political participation to be a multidimensional concept, these drivers were used to predict various types of political behavior. But with the recognition of a plethora of new, especially digitally networked, political activities (Theocharis, 2015), new approaches to conceptualize political participation emerged (Ekman & Amnå, 2012; Gibson & Cantijoch, 2013; Teorell, Torcal, & Montero, 2007). The present study focuses on what digital media use and its potential impact on understandings of citizenship ultimately may mean for participatory democracy. Accordingly, it applies a

conceptualization developed by van Deth (2014) and Theocharis (2015) that allows for an investigation of the effects of digital media use on three types of political participation with different distance to political processes: participation *targeted at the political system (PP II)*, participation on a *community level (PP III)* and per se non-political, but *politically motivated activities (PP IV)*. Previous research often applied conceptualizations that distinguished between types of participation according to the technology used (e.g., online vs. offline) or level of efforts dedicated to activities (e.g., active vs. passive; Bakker & de Vreese, 2011; Bode, 2017; Gil de Zúñiga, Jung, & Valenzuela, 2012). The concept of participation used in our study rather focuses on what citizens' different types of engagement means for the existing political system and thereby extends previous research.

Digital media use as driver of participation

Creating awareness of political topics, fostering political talk and making people more knowledgeable, media use has been identified as an important individual-level predictor of political participation (Prior, 2007; Shah et al., 2005). Investigating the effects of digital media use on political behavior may seem natural at a time when citizens ubiquitously use Internet technology in most parts of their life. However, digital media can be used for different purposes: For instance, citizens increasingly access news via online channels (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2017) but they also use the Internet to communicate with peers via messaging apps on their smartphones or upload user-generated content (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015). Interestingly, it is not only the young who make use of those technologies; older generations increasingly also adopt such online activities (Anderson & Perrin, 2017). Earlier research has already established a rather strong relationship between Internet use (see Boulianne, 2009) or social media use (see Boulianne, 2015, 2017) and political behavior. But while most studies applied a rather unidimensional understanding of Internet use, the present study aims at extending this knowledge by focusing on differential digital media use and its effects. Ekström, Olsson, and Shehata (2014) discriminate between using the Internet for *social interaction*, *creative expression* and *accessing news*.

While *social interaction* refers to the use of social media platforms and messenger-apps for interpersonal communication (Ellison, Steinfield & Lampe, 2007; Lenhart, 2015), using the Internet for *creative expression* describes the distribution of ideas, text, images or videos publicly, in collaboration with or inspired by other users (Micheletti & McFarland, 2011). *Using online sources for news* is often seen as one of the strongest facilitators of political action since information about politics and public affairs is often freely available, easily accessible and contributes to the political expertise of citizens (Dimitrova et al., 2014; Eveland & Schmitt, 2015). Various studies find that online news is a significant facilitator of democratic behavior (e.g., Bakker & de Vreese, 2011; Kaufhold, Valenzuela, & Gil de Zúñiga, 2010). Moreover, Ekström et al. (2014) found positive effects of online news use on political interest and political talk among young citizens, while the use of the Internet for social interaction had a negative influence. Ekström and Östman (2015) found online creative expression, but not social interaction, to be a driver of political participation. Specifically, *social media news use* was found to be a positive predictor of certain types of political participation, for example, by Baumgartner and Morris (2010), Gil de Zúñiga, Garcia-Perdomo, and McGregor (2015) and Vaccari et al. (2015). Hence, we expect:

> H1: (a) Social media news use, (b) online news use and (c) online creative expression will be positively related to political participation.

> H1 d: Online social interaction will not be positively related to political participation.

Although most types of digital media use are expected to be positively related to political participation, their effects may vary in strength. The affordances of a digital media environment, such as personalization (Thorson & Wells, 2016), inadvertent exposure (Valeriani & Vaccari, 2016) and targeted information (Kruikemeier, Sezgin, & Boerman, 2016), are all more pronounced for social media use. Many studies find social media use to have more positive effects on political behavior than online media use (e.g., Dimitrova et al., 2014; Gil de Zúñiga et al., 2012). The argument is that news use on social media 'pushes' information towards peoples' news feed and that a personalized, targeted and narrow news diet has a mobilizing effect. It also allows for inadvertent exposure to certain issues (Valeriani & Vaccari, 2016) based on the user's social network and algorithmic decision. Hence, a possible explanation why social media news use mobilizes participation more than online news use is that users are (inadvertently) exposed to more personalized and targeted news on social media. To investigate such differences, we need to compare effect strengths of similar measures. We therefore ask:

> RQ1: Is the positive relationship between social media news use and political participation stronger than the positive relationship between online news use and political participation?

Understanding of citizenship

By conveying civic norms, the media contribute importantly to citizens' political socialization (McLeod, 2000). Research investigating changes in participation patterns of young citizens sees an increasing impact of digitally networked communication for 'the emergence of distinctly new norms of citizenship' (Bennett, 2008; Dalton, 2009; Jorba & Bimber, 2012; Xenos et al., 2014, p. 155). The way citizens understand their role in society, in turn, can have important impacts on why and how someone participates in political activities (Nygård & Jakobsson, 2013; Shah et al., 2005; Theiss-Morse, 1993). Hence, it is possible that digital media use has an indirect effect on modes of political participation as facilitator of certain understandings of citizenship. However, empirical evidence that establishes the connection between digital media use and new understandings of citizenship is sparse (Copeland & Feezell, 2017; Schulz, Fraillon, & Ainley, 2013). Therefore, we link digital media use to four distinct understandings of citizenship (i.e., *dutiful, optional, individual, collective*) and investigate their impact on political participation (see Figure 1 for full research model). Developing an understanding of citizenship is part of civic socialization, i.e., acquiring 'a shared set of expectations about the citizen's role in politics' (Dalton, 2009, p. 35). This is different from the legal understanding of citizenship. Citizenship understanding is closer linked to political attitudes as 'long-term perspectives on the political world' (De Vreese & Moeller, 2014, p. 538) than to political norms, which are 'behavioral regularities' (Heberlein, 2012) and therefore closer related to actual political behavior. In our case, the distinction between a general attitude and concrete behavior is crucial because we test for the effect of citizenship understanding on political *behavior*.

So far, the connection between media use and citizenship norms runs along the lines of dutiful vs. self-actualizing citizenship (Bennett, 2008) and traditional, offline media use vs.
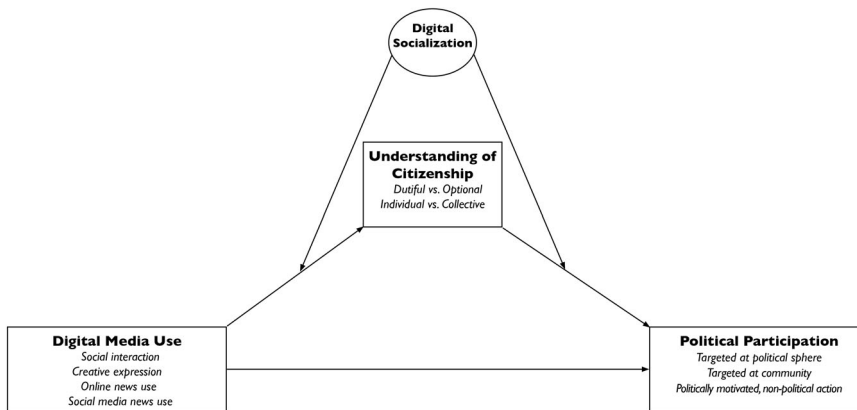
Figure 1. Research model.

digital media use. In this understanding, dutiful citizens obtain information mostly from traditional media outlets, while self-actualizing citizenship is connected to digital media use (Mascheroni, 2015; Shehata, Ekström, & Olsson, 2016). However, scholars disagree to what extent this dichotomy fully captures the possible range of citizenship manifestation (e.g., Hooghe, Oser, & Marien, 2016), and it is less clear what characterizes new and emerging models of citizenship (Thorson, 2015). Furthermore, given that the distinction between dutiful and self-actualizing citizenship stems from the very early times of Internet usage, re-thinking citizenship norms and their connection to media use seems timely. Today, connecting dutiful citizenship with offline media use may be less relevant, since high-quality journalism is equally accessible online and offline. At the same time, the high frequency of interpersonal communication online can be less unerringly tied to the self-actualizing type of citizenship. To investigate the connection between media use and citizenship under a more diverse and digital perspective, four dimensions of citizenship understanding are proposed: *dutiful*, *optional*, *individual* and *collective*. The subsequent paragraphs connect digital media use to each dimension of citizenship.

The most prevalent civic orientation is *dutiful* citizenship (e.g., Bennett, 2008; Dalton, 2009; Schudson, 1998). A dutiful citizen feels obligated to stay informed about political developments, considers political organizations important and perceives voting as the most important civic duty (Bennett, 2008; Mascheroni, 2015; Moeller, Kühne, & de Vreese, 2018). However, with growing individualization (Beck & Beck-Gernsheim, 2001) and a 'high choice media environment' (Prior, 2007), peaking in a completely personalized online media diet (Thorson & Wells, 2016), citizenship might increasingly be considered *optional* rather than a duty. More options in terms of life path and acceptable life styles that require frequent decisions may contribute to making active citizenship yet another choice (Norris, 2003; Thorson, 2015). In other words, if pursuing a career or becoming parents are considered choices rather than a duty, political participation may likewise be seen as optional.

Dutiful citizenship is generally associated with a communication logic where citizens prefer 'primarily one-way consumption of managed civic information' (Bennett et al., 2011, p. 840), stemming from authorities such as mass media, political campaigns or opinion leaders (Copeland & Feezell, 2017). Such information is increasingly found on

digital media, including news from legacy media or information from political actors. There is some evidence that digital media use fosters dutiful civic norms among young citizens (Ekström et al., 2014; Mascheroni, 2015). Shehata et al. (2016), for example, report a strong relationship between online interaction and indicators of dutiful citizenship. Moreover, studies have shown that understanding citizenship as a duty is positively related to political participation (Dalton, 2009; Moeller et al., 2018), suggesting an indirect effect of digital media use on participation through dutiful citizenship. However, Copeland and Feezell (2017) could not establish such a relationship in the US, and nor did they find that a dutiful understanding of citizenship mobilizes political participation.

Thorson (2015), in turn, reports lower levels of political participation among citizens with a mainly digital media diet who express an *optional* understanding of citizenship. Digital media can clearly distract citizens from engaging with political content, and peer networks may serve as a barrier, especially if they consist of people with low interest in political topics. Furthermore, the difference between content consumption and production can blur on digital media (Bennett et al., 2011), making political content exposure from others than public authorities likely. Such content may not convey the requirement of active citizenship to the same extent as content from, for example, legacy media. Understanding citizenship as optional may be a potential outcome, thereby dampening incentives to participate politically. Since research on indirect effects of dutiful and optional understanding of citizenship on participation is sparse or inconclusive, it is asked:

> RQ2: Do (a) dutiful citizenship and (b) optional citizenship mediate the positive relationship between digital media use and political participation?

Each type of digital media use investigated in this study relies – to different extents – on the logics of networked communication. Already in 2008, Bennett suggested a transition from a group-based to a networked society (cf. Castells, 1996). However, the implications for citizenship norms of constantly using media and acting in a digital network are understudied. Today, individuals are more widely connected than ever before, but the ties in those networks are much looser than they were in earlier group formations (Beck & Beck-Gernsheim, 2001; Mislove, Marcon, Gummadi, Druschel, & Bhattacharjee, 2007). This network structure can emphasize two different citizen roles: First, a network with weak ties may strengthen the perception of a person's prominent and central position in the network, i.e., his or her role as an *individual*. Thereby, digital media use may contribute to civic participation increasingly becoming an *individual* matter, understood as an act of self-actualization with a strong belief in the individual's ability to achieve change in society (Mascheroni, 2015). Second, being part of a wide and increasingly global network may also foster a person's perception of being part of a larger whole, such as a collective movement (e.g., Bennett & Segerberg, 2011). This *collective* understanding of citizenship is best described as 'centered on a collective "we-ness"' (Mascheroni, 2015, p.21), exemplified by the success of websites like Change.org or the coop-movement.

Although individual and collective citizenship may look like contrary orientations, both may have differential but positive indirect effects on political participation. The 'pursuit of public experiences of the self' (Bennett & Segerberg, 2011, p. 771) and content creation via digital media may both foster the understanding that the individual has the abilities to achieve change and thereby motivates certain acts of participation. Furthermore, digital social connectivity reveals the proximity of likeminded people, sharing the same

information online or being part of the same WhatsApp group. Experiencing this connectedness may motivate people to participate because they know they do not take action alone. However, knowing that others are already pursuing important goals may encourage free-riding and discourage social responsibility (Bennett & Segerberg, 2011; Olson, 1965), thus decreasing political participation. Research on the distinct indirect effects of individual and collective citizenship on participation is sparse, but related studies indicate a general connection between digital media use, actualizing civic norms and political activity (e.g., Copeland & Feezell, 2017; Mascheroni, 2015; Xenos et al., 2014). To investigate this relationship further, we ask:

> RQ3: Do (a) individual citizenship and (b) collective citizenship mediate the positive relationship between digital media use and political participation?

Does digital socialization matter?

As described above, young and older citizens participate in politics differently. However, it is unclear if digital media use is responsible for different styles of political behavior among young and older generations and if indirect effects of citizenship understanding on participation can be observed across age groups. To investigate if citizens who grew up in a digital age behave differently, the study focuses on two groups with different socialization patterns: So-called 'digital natives,' who were fully socialized in a digital media environment, and older citizens, who experienced the transformation from an analogous to a digital media environment as a tremendous change (Palfrey & Gasser, 2013). Growing up with digital media may determine the way 'to do things' when it comes to information seeking, social connection and personal expression. However, older citizens' 'way of doing things' may also be affected by their increasing uptake of messenger services, social media networks, and online news platforms (Rossi, Schwartz, & Mahnke, 2016).

In general, age differences in participation patterns are explained by life-cycle effects (educational level, stable residency, integration into community processes; Quintelier, 2007) and generational effects, such as today's longer transitional phases to adulthood (O'Toole, Lister, Marsh, Jones, & McDonagh, 2003). However, these causes mostly relate to institutionalized types of participation and voting while research has found that young citizens perceive a broader spectrum of activities as politically relevant (Nygård & Jakobsson, 2013; Quintelier, 2007). Such new activities, in turn, increasingly rely on digital technology and a network logic of spreading information (Klinger & Svensson, 2015). Hence, it seems logical to draw a connection between young citizens' high usage of online services and the popularity of new, digitally networked activities. Yet, research on generational media effects is sparse. It is possible that digital natives' upbringing in a digital age results in higher media literacy which, for example, helps them find information that caters to specific needs and interests. In turn, receiving political information with high relevance for an individual has mobilizing effects on political participation (e.g., McClurg, 2003). However, older citizens also use digital media for a number of purposes and may benefit from digital media's affordances in their political behavior as well. Hence, we ask:

> RQ4: Does digital media use affect the political participation of digital natives more strongly than the participation of older citizens?

Turning to the indirect effect of citizenship understanding, socialization research shows that media convey civic norms via their coverage of political issues, the political system, and the standards of living together in a society (Lee, Shah, & McLeod, 2013; McLeod, 2000). Media are an especially important facilitator of citizenship because most citizens use media constantly, while the influence of other sources (e.g., school and family) diminishes with growing maturity (De Vreese & Moeller, 2014). Hence, although being politically socialized in a digital age likely exerts a strong impact on how young people understand citizenship, digital media use may shape civic norms of older generations as well. It is therefore likely that digital media not only affect the citizenship understanding of digital natives but also of 'digital immigrants' (Prensky, 2001). The latter's role as citizens would then be 'updated' by the use of online services, although they were socialized before the rise of digital media. If that is the case, the relationship between digital media and participation would be mediated for both age groups. Hence, we ask:

> RQ5: Do indirect effects of digital media use through citizenship understandings on political participation differ between digital natives and non-digital natives?

Method

In order to investigate how using the Internet for different purposes affects participation and the understanding of citizenship, the study relies on two waves of an original online survey conducted in November 2014 and October 2015 and administered by Epinion Denmark. First wave data comprise socio-demographic variables as well as two habitual kinds of digital media use (social interaction, creative expression). Second wave data comprise citizenship understanding and political participation variables. Although no change is modeled, this two-wave setup strengthens the causal direction of our model from Internet use to behavior. The distinction between *online* and *social media* news sources is crucial due to different affordances of the information environment. However, the convergence of information in a digital media environment challenges respondents' ability to correctly recall where they were exposed to certain information. Therefore, a cross-sectional measure of these exposure categories was waived and instead, a smartphone-based diary study was used. The *Audio-Page-Stream* (Engel & Best, 2012; Ohme, Albaek & de Vreese, 2016) approach was used, asking respondents to indicate, on a daily basis, their actual news sources (see Appendix 1). It is argued that by decreasing respondents' memory effort and offering them more intuitive response categories, such a mobile day-to-day measurement helps comprehensively distinguish *online news use* from *social media news use*. Smartphone surveys were conducted on 36 days between the two online survey waves.

The sample consists of 1322 respondents who took part in both waves of the online survey and at least four times in the mobile diary survey. This secures a sufficient assessment of their *online* and *social media news use* but reduces the number of respondents originally recruited. Three different groups of respondents in Denmark were sampled via a pollster's online database: a *general population* sample, a sample of the *elderly* population and a *youth* population 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. The first wave of the survey was

conducted in November 2014. In the general population sample, 10,315 were invited to take the online survey, resulting in a response rate of 45% ($n = 4641$). Similarly, the response rate for the elderly sample was 60% ($n = 1831$). For the youth sample, 13,700 persons aged 17–21 in wave 1 were randomly sampled, using national register address data;[1] the response rate was 19% ($n = 2653$). In total 9125 (4641 + 1831 + 2653) participated in wave 1 of the online survey, resulting in an overall response rate of 33%.

Wave 2, which was the last wave of a longitudinal study, was conducted 11 months later in October 2015. It included 2084 respondents from the national sample (response rate from wave 1:45%). The elderly sample included 1076 respondents (response rate from wave 1:58%) and the youth sample 651 (response rate from wave 1:25%). Like other studies, difficulties retaining young people in the sample across the time span of almost one year were experienced. This explains the relatively high attrition rate in the youth sample. Of the respondents participating in wave 1 and 2, 1548 (40%) participated in the smartphone-based surveys. Eighty-five percent of them participated at least four times in the mobile diary leading to a final sample of 1322.[2]

Measures

Digital media use

To assess how citizens used the internet for social interaction and creative expression, the measurement suggested by Ekström et al. (2014) was applied, asking respondents how often – on a scale from 0 (never) to 4 (daily) – they use the Internet for social interaction activities (*Keeping in touch with or up to date with my friends through Facebook or other social media*; *Talking to friends using Skype, WhatsApp, iMessage, Snapchat or the like*; *Share an update about myself using Facebook or other social media*) resulting in an additive index ($M = 1.7$, $SD = 1.0$, *Cronbach's* $\alpha = .64$). Creative expression was measured accumulating three items (*Writing my own blog*; *Taking or sharing photos, music, or videos I have made myself, e.g., on Instagram, SoundCloud or YouTube*; *Getting inspired for the things I do by browsing the web for creative ideas*) into an index ($M = .94$, $SD = .66$., *Cronbach's* $\alpha = .42$).

To assess news use via digital media, respondents were asked via the mobile diary if they received information about political developments on the respective day constructed around three modes of reception, i.e., *Audio*, *Page* and *Stream* (Engel & Best, 2012; see survey questions Appendix 1). To account for the diary structure of the data with varying participation days among respondents, a relative exposure measurement was calculated on an individual data level. Values ranged between 0 and 1, 1 indicating the use of *online news use* ($M = .12$, $SD = .13$, *Cronbach's* $\alpha = .80$) and *social media use* ($M = .20$, $SD = .24$ *Cronbach's* $\alpha = .79$) on each day of participation in the diary study. On average, respondents received news from online sources on 12% of the days they participated and via social media on 20% of days participated. The levels of digital media use, however, differed between digital- and non-digital natives (see Table 4).

Political participation

Three types of political participation were assessed, following a theoretical approach by van Deth (2014) and Theocharis (2015). This conceptual approach distinguishes types of

participation according to their connection with the political system, rather than the technology or levels of effort they rely on. The empirical fit of this approach was tested using a confirmatory factor analysis and showed good applicability (Ohme, 2018, see Appendix 3). Based on results from this test, measures of political participation were constructed. Respondents were asked how often they had recently participated in 21 different participatory activities (*never – one – two – three – four or more times*) forming an additive index. Political Participation II ($M = .28$; $SD = .45$ $Min = 0$, $Max = 4$, *Cronbach's Alpha* = .77) includes seven activities directly targeting the political system (e.g., participating in a demonstration). Political Participation III ($M = .36$, $SD = .55$, $Min = 0$, $Max = 4$, *Cronbach's Alpha* = .76) consists of eight activities targeted at an issue in the community, such as participating in a neighborhood meeting. Political Participation IV ($M = .48$, $SD = .62$, $Min = 0$, $Max = 4$, *Cronbach's Alpha* = .60) comprises six non-political, politically motivated activities, such as boycotting products for political reasons. Appendix 2 displays the percentages of participation for digital natives and non-digital native citizens.

Understanding of citizenship

As described above, citizenship understanding is defined as a set of shared expectations about the role citizens should play in a society (Dalton, 2009). Since these attitudes mostly have a behavioral referent, previous studies measure and define them mainly by asking about the importance of certain activities (e.g., Dalton, 2009; Xenos et al., 2014). However, the endeavor of this study is to test how the understanding of citizenship affects political behavior. Therefore, a measurement based on the role and the impact of a citizen in society was constructed. Respondents were asked to what extent they agreed with four statements concerning the four types of citizenship (dutiful, optional, individual, collective; for full wording see Table 1). The item for dutiful citizenship is derived from Bennett (2008), the item for optional citizenship from Thorson (2015), and the items for individual and collective citizenship from Xenos et al. (2014) and Mascheroni (2015). Dutiful/optional as well as individual/collective citizenship were seen as opposite manifestations; a correlation test confirmed negative correlations for both pairs of items and thereby a contrary orientation (Table 1). This follows Little, Lindenberger, and Nesselroade (1999), who suggest that the number of indicators is less crucial for construct measurement than their distance (i.e., correlation) from each other.

Digital natives

There is a discussion in the literature about the age that separates citizens who have been fully socialized with digital media and citizens who experienced the rise of the Internet as a change (Palfrey & Gasser, 2013; Prensky, 2001). Since the understanding of digital media in our study is mostly based on characteristics implied by social networks, the study treats people born after 1994, who reached adolescence (i.e., the age for self-determined media exposure) when major digital networks were already founded (MySpace: 2003; Facebook: 2004) as digital natives. Since this generation is currently entering the political system (Moeller, de Vreese, Esser, & Kunz, 2014), it is also reasonable to survey the full range of participatory activities available to citizens.

Table 1. Descriptives and correlations of different citizenship understandings.

Measure				Item correlation			
One can have different attitudes towards the role of a citizen in the society. Please state how much you agree with the following statements. (1/not at all – 5/strongly)		*M*	*SD*	*1.*	*2.*	*3.*	*4.*
(1) Dutiful	It is a civic duty to know what is going on in politics and society.	3.8	.86	–			
(2) Choice	Everyone is free to not engage in political or societal activities.	3.8	1.0	−0.12***	–		
(3) Individual	Even as a single person one can change something in society and politics.	3.4	1.0	0.12***	0.00	–	
(4) Collective	Only as a member of a group one can change something in society and politics.	3.4	.98	0.09***	−0.03***	−0.34***	–

Note: Pearson's correlation displayed. $N = 1322$.
***$p < .001$.

Controls

Age ($M = 47$, $SD = 19$, $Min = 18$, $Max = 86$), gender (46% male), formal education, political interest ($M = 6.7$, $SD = 2.4$, $Min = 0$, $Max = 10$), and offline media use (assed with the mobile diary measure; $M = .12$, $SD = .13$, Min = 0, Max = 1.0) were added as control variables to the model.

Results

We first look at the direct route of effects in our model from using the Internet for different purposes on political participation. To estimate predictors of different types of participation, a hierarchical multilevel regression was conducted (Table 2). Using digital media mostly for social interaction is a significant predictor of participation targeted at the political sphere (PP II) as well as political participation in politically motivated, non-political activities (PP IV). Furthermore, we find evidence that using the Internet for creative expression predicts political participation that is targeted at the political sphere (PP II), the community sphere (PP III) as well as political participation in politically motivated, non-political activities (PP IV), though effect only effect on PP III and PP IV clearly meet the significance criteria. Online news use mobilizes citizens to participation targeted at the political sphere (PP II) and in politically motivated, non-political actions (PP IV). The strongest direct effects are found for social media news use. Using digital media for informational purposes via social media channels has a robust impact on participation targeted at the political system (PP II) and other politically motivated activities (PP IV). These findings support H1a, H1b and H1c, exemplifying that creative and informational use of digital media can stimulate political participation. However, H1d, predicting no mobilizing effect of social interaction must be rejected. RQ1, which asked if social media news use is a stronger mobilizer of participation than online news use, can furthermore be answered affirmatively.

Next, we were interested in whether the direct relationship between digital media use and political participation is mediated by different citizenship understandings. To be able to answer RQ2 and RQ3, we first analyzed the relationship between citizens' use of

Table 2. Hierarchical regression predicting political participation.

	Political participation								
	Political participation II (targeted at political system)			Political participation III (targeted at community issues)			Political participation IV (non-political, but politically motivated)		
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Block 1: Controls									
Gender (female)	.045[+]	.046[+]	.042	−.055[+]	−.053[+]	−.055[+]	.036	.034	.034
Age	.079[+]	.077[+]	.074	.225***	.225***	.220***	.127**	.123**	.121**
Education	.023	.024	.021	.021	.021	.021	.032	.030	.030
Political interest	.171***	.178***	.172***	.044	.049	.045	.194***	.203***	.193***
Offline news use	.006	.011	.006	.131***	.134***	.132***	−.022	−.013	−.022
R^2 (%)	8.4***			8.8***			12.5***		
Block 2: Digital media use									
Social interaction	.069*	.062[+]	.069*	.023	.028	.024	.073*	.058[+]	.072*
Creative expression	.048[+]	.064[+]	.046	.081**	.096**	.080**	.084**	.092**	.082**
Online news use	.127***	.107***	.127***	.014	.010	.014	.068*	.071*	.068*
Social media news use	.165***	.202***	.165***	.035	.042	.035	.243***	.316***	.244***
R^2 (%)	16.0***			10.3**			22.9***		
Block 3: Citizenship									
Dutiful	−.047[+]	−.048[+]	−.024	.013	.011	.033	.000	.001	.022
Optional	−.117***	−.118***	−.124***	−.072**	−.074**	−.066*	−.025	−.025	−.028
Individual	.113***	.107***	.127***	.101***	.097***	.099**	.095***	.091***	.116***
Collective	.042	.041	.048	.035	.034	.036	.032	.030	.057[+]
R^2 (%)	18.2***			11.7**			23.6**		
Block 4: Digital socialization									
Digital native (DN)	−.023	.131	.208	.090*	.247*	.289	−.118**	.083	.283
R^2 (%)	18.3***			12.0*			24.2**		
Block 5: Interactions I									
DN* Social interaction		−.081			−.118			−.040	
DN* creative expression		−.041			−.044			−.032	
DN* online news use		.100*			.020			.036	
DN* social med. news use		−.156**			−.033			−.230***	
R^2 (%)		19.0**			12.2			26.0***	
Block 6: Interactions II									
DN* dutiful Cit.			−.138			−.137			−.141
DN* optional Cit.			.035			−.061			.009
DN* individual Cit.			−.087			.003			−.128
DN* collective Cit.			−.053			−.014			−.164[+]
R^2 (%)			19.3			12.4			26.3
adj. R^2	.174*	.180*	.174*	.111*	.110*	.109*	.234***	.249***	.235***
N	1304	1304	1304	1304	1304	1304	1304	1304	1304

Note: Cell entries are final-entry OLS standardized Beta (β) coefficients; changing number of cases due to item non-response.
[+]$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

the Internet for different purposes and their understanding of citizenship. To this end, a multiple linear regression was conducted with the respective understandings of citizenship as the dependent variable (Table 3). Older people, females and people with higher political interest are more likely to subscribe to a *dutiful* understanding of citizenship. *Optional* citizenship is not predicted by any of the control variables, but being female decreases the likelihood of expressing this understanding. *Individual* citizenship is predicted by higher formal education and political interest, while age is the only significant predictor of *collective* citizenship. Turning to media effects and focusing on the direct effects in Table 3 (Models 1, 3, 5 and 7), we find that using the Internet for social interaction or creative expression does not foster any of the investigated orientations of citizenship. Online news use is a modest predictor of dutiful citizenship, while social media news use predicts dutiful and individual citizenship positively but hinders an optional understanding. The significance of the described media effects on dutiful and optional citizenship, however, ranges just above the .05 significance criteria.

To explore in a second step, how different understandings of citizenship influence political participation, we turn back to direct effect in the hierarchical regression model in Table 2 (Model 1, 4 and 7). The results suggest a rather distinct negative effect of optional citizenship on two types of political participation (PP II and III), while individual citizenship predicts all three types positively. The total variance explained by all four blocks of the hierarchical regression ranged between 12.4% (PP III) and 26.3% (PP IV; Adjusted R^2: PP II = 17.4%, PP III = 11.1%, PP IV = 23.4%). The explained variance added by the inclusion of the understanding of citizenship to our model thereby increased by 0.7 (PP IV) to 2.2 (PP II) percentage points. This reflects that different citizenship orientations help – to a certain extent – explain why people are politically active or not.

Although the effects we find for digital media's influence on citizenship understanding and in turn citizenship's influence on political participation are rather small, there is evidence of an indirect route and a partial mediation. Since we find effects of social media news use on an optional and individual understanding of citizenship as well as these two understandings affecting political participation, we test for the indirect effects via these routes (*social media news use → optional/individual citizenship → political participation*). To this end, six different mediation models using structural equation modeling were conducted. All models obtained a satisfactory model fit (see Table 5 for results and fit indices). The results replicate the direct effects and stepwise effects for the indirect paths found in the regression analyses. As far as the mediating effect of an optional understanding of citizenship, there is evidence of partial mediation for the effect of social media news use on political participation. In two cases (PP II: *Coef.* = .02, *p.* = .03 and PP III: *Coef.* = .02, *p.* = .05) we find that an *optional* orientation towards participation negatively mediates (i.e., decreases) the positive effects of social media news use on political participation. Interestingly, the total effect of the mediation is small but positive, indicating that social media news use helps mobilize people to participate, although they see participation as optional. The effect of social media news use on political participation is furthermore partially and positively mediated by an *individual* understanding of citizenship (PP II: *Coef.* = .01, *p.* = .05, PP III: *Coef.* = .02, *p.* = .05, and PP IV *Coef.* = .02, *p.* = .06). Hence, the positive effect of social media use on political participation is partially explained by an increase in the feeling that the individual alone can achieve a change in politics and society.

Table 3. OLS regression predicting understanding of citizenship.

Model	Understanding of citizenship							
	Dutiful		Optional		Individual		Collective	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Controls								
Gender (female)	.092***	.093***	−.167***	−.160***	.050$^+$	.056$^+$	−.016	−.021
Age	.079*	.086$^+$	.044	−.018	−.053	−.072	.080*	.129*
Education	.026	.030	−.047	−.076*	.103***	.094**	−.045	−.025
Political Interest	.258***	.259***	−.006	.000	.086**	.092**	−.002	−.003
Offline News use	.065$^+$	.065$^+$	−.117**	−.100**	.021	.029	.033	.023
Digital media use								
Social interaction	−.032	−.029	.043	.072$^+$	.034	.054	.035	.022
Creative expression	−.026	−.013	−.036	−.037	.010	.025	.002	.005
Online news use	.054$^+$	.043	−.025	−.022	.023	−.001	−.035	−.020
Social media news use	.061$^+$	.056	−.053$^+$	−.062$^+$	.074*	.070$^+$	−.035	−.029
Digital socialization								
Digital native (DN)		.080		.120		.201$^+$		.043
DN* social interaction		−.067		−.241*		−.254*		.085
DN* creative expression		−.035		.004		−.032		−.021
DN* online news use		.039		−.017		.092$^+$		−.056
DN* social media news use		−.006		.032		−.034		.004
adj. R^2	.133***	.131***	.040***	.043***	.031***	.035***	.004***	.004***
n	1304	1304	1304	1304	1304	1304	1304	1304

Note: changing number of cases due to item non-response.
$^+p < .10$; $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$.

Table 4. Frequencies of political participation, citizenship and digital media use by digital socialization.

Variable		M	SD	n	t	df
Political participation						
Political participation II	Digital native	.21	.37	296	2.69*	1320
(targeted at political system)	Non-digital native	.29	.47	1026		
Political participation III	Digital native	.22	.58	296	5.00***	1320
(targeted at community issues)	Non-digital native	.40	.39	1026		
Political participation IV	Digital native	.26	.62	296	6.95***	1320
(non-political, but politically motivated)	Non-digital native	.54	.41	1026		
Understanding of citizenship						
Dutiful	Digital native	3.50	.98	296	6.05***	1320
	Non-digital native	3.85	.85	1026		
Optional	Digital native	3.83	1.05	296	.57	1320
	Non-digital native	3.87	1.01	1026		
Individual	Digital native	3.47	1.12	296	.59	1320
	Non-digital native	3.51	1.00	1026		
Collective	Digital native	3.42	1.00	296	.03	1320
	Non-digital native	3.43	1.05	1026		
Digital media use						
Social interaction	Digital native	2.48	.61	296	−.14.06***	1320
	Non-digital native	1.60	1.04	1026		
Creative expression	Digital native	1.06	.65	296	−5.21***	1320
	Non-digital native	.84	.60	1026		
Online news Use	Digital native	.11	.11	296	2.67*	1320
	Non-digital native	.13	.13	1026		
Social media news use	Digital native	.27	.23	296	−6.69***	1320
	Non-digital native	.17	.22	1026		

*$p < .05$; **$p < .01$; ***$p < .001$

In general, there is evidence of a mediation of digital media use effects on political behavior through different understandings of citizenship, although effects are modest and mediations are partial. Answering RQ2 and RQ3, results indicate that the effect of social media news use on two types of political participation (PP II, PP III) is partially indirect through an *optional* but not a *dutiful* understanding of citizenship. At the same time, the effect of social media news use on all three investigated types of political participation is partially indirect through *individual* but not *collective* understanding of citizenship.

Lastly, we explore if direct and indirect effects are dependent on the socialization of citizens as digital natives. Young citizens use the Internet significantly more often for social interaction, creative expression and social media news use. In turn, online news use occurs slightly more often among older generations. At the same time, older generations are politically more active in all three types of political participation (Table 4). To untangle this relationship further, interaction terms for being a digital native and different types of digital media use are added to the model (Table 2, Block 5). We find that digital media effects on participation indeed differ between younger and older cohorts. While the effects of online news use on participation with close relation to the political system (PP II) are stronger for digital natives, young citizens are less mobilized by social media news use than older citizens. Digital natives furthermore benefit less from using social media for news consumption as driver for participation in politically motivated activities with little connection to politics (PP IV), compared to their older fellow citizens (see Figure 2). Together, these findings demonstrate that social media use predicts participation far less for digital natives than for older generations, thereby answering RQ4.

This finding yields the question whether the smaller direct effect of social media news use on participation can be explained by media use affecting digital natives' citizenship
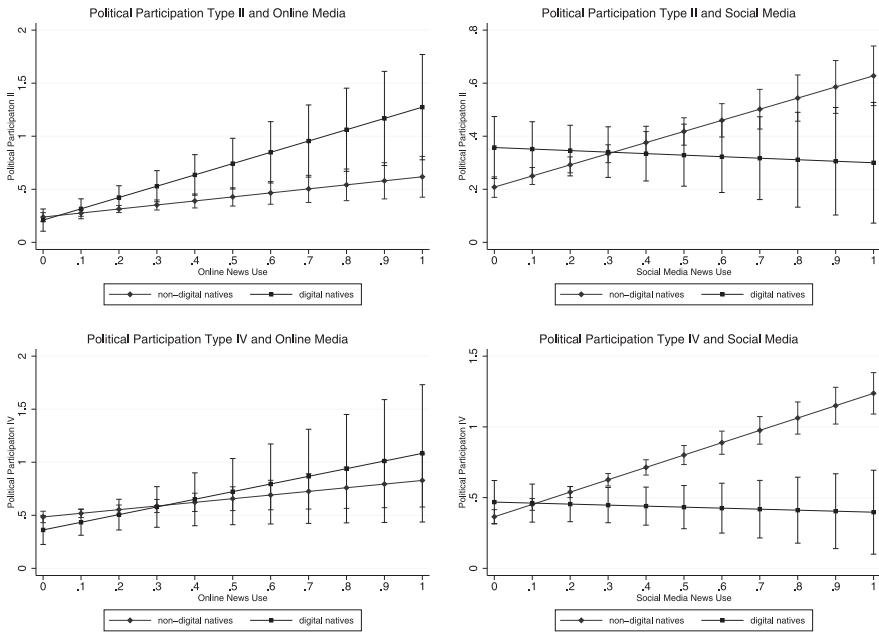
Figure 2. Interactions of media use and digital socialization on political participation.

understanding differently (RQ5). First, looking at the interaction effects in our regression models, there is little evidence of such a difference (Table 2, Block 6 and Table 3; see also Figure 3). To see if the general indirect effects (*social media news use* → *optional/*
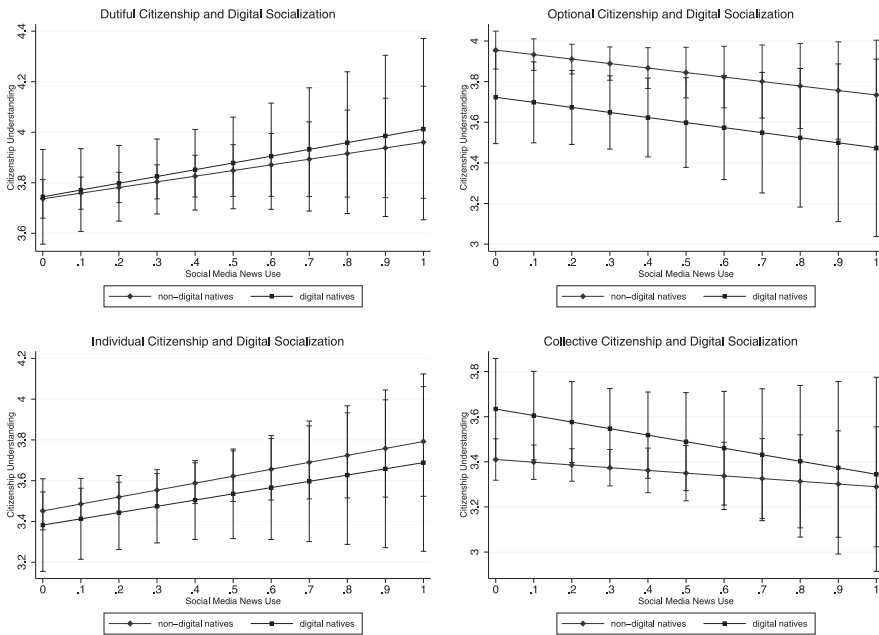

Figure 3. Interaction effect of media use and digital socialization on citizenship.

Table 5. SEM mediation for indirect effect of understanding of citizenship, moderated by digital socialization.

	Political participation II Coef. (p.)	Political participation III Coef. (p.)	Political participation IV Coef. (p.)
Optional understanding of citizenship			
Social media news use			
Direct path (standardized main effects)			
Social media news use → Politicalparticipation	.24 (.000)	.08 (.007)	.32 (.000)
Indirect paths (standardized main effects)			
Social media news use → Optional citizenship	−.08 (.008)	−.08 (.010)	−.08 (.008)
Optional citizenship → political participation	−.11 (.000)	−.09 (.002)	.01 (.776)
Mediated Path (unstandardized, indirect effects)			
Social media news use → Optional citizenship → Political participation	.02 (.026)	.02 (.049)	.00 (.777)
Mediated path, moderated (unstandardized, indirect effects)			
Digital native	.01 (.327) [a]	.02 (.232) [a]	.00 (.696)
Non-digital native	.02 (.089)	.01 (.142)	.00 (.620)
CFI	.998	1.000	.993
RMESA	.048	.00	.04
Chi-square [df]	3.619 [1] (.057)	0.894 [1] (.344)	3.150 [1] (.076)
Individual understanding of citizenship			
Social media news use			
Direct path (standardized main effects)			
Social media News use → Political participation	.24 (.000)	.08 (.008)	.32 (.000)
Indirect paths (standardized main effects)			
Social media News use → Individual citizenship	.08 (.009)	.08 (.007)	.08 (.009)
Individual citizenship → Political participation	.08 (.003)	.08 (.007)	.08 (.005)
Mediated path (unstandardized, indirect effects)			
Social media News use → Individual citizenship → political participation	.01 (.051)	.02 (.057)	.02 (.055)
Mediated Path, moderated (unstandardized, indirect effects)			
Digital native	.01 (.498) [a]	.02 (.324) [a]	.01 (.467)
Non-digital native	.02 (.069)	.01 (.111)	.02 (.077)
CFI	.995	1.000	.998
RMESA	.03	.00	.02
Chi-square [df]	2.057 [1] (.152)	.231 [1] (.321)	1.622 [1] (.203)

Note: models include gender, age, education, income and political interest as control variables. Goodness-of-fit indices displayed for mediation models. Moderated mediation models marked with [a] showed equally good model fit than original mediation models.

individual citizenship → political participation) we found earlier are dependent on the digital upbringing of citizens, again SEM mediation models were conducted, moderated by being a digital native (Table 5). Indeed, there is evidence that the indirect effect of social media news use on political participation through optional citizenship is more pronounced for non-digital natives. The same picture emerges for the indirect effect through individual citizenship. Here, we find that mediation effects for non-digital natives for all three types of political participation closely approach significance, while the effects for digital natives clearly do not. Overall, these results reflect a rather distinct impact of especially social media news use on political participation of non-digital natives and yield some indication that this mobilizing effect partly exists because of digital media's ability to affect how people understand citizenship. However, effect sizes are rather small for the partial mediations and do not always meet the conventional significance criteria. Answering RQ5, results indicate that indirect effects of social media use on participation through citizenship differ somewhat between digital natives and older citizens, but only slightly.

Discussion

This study examined how digital media use and different citizenship understandings work together to predict political participation among citizens – and if this interplay is dependent on the digital socialization of citizens. Using social media for informational purposes fosters two more global types of political participation: targeting the political sphere in a country and engaging in activities that are politically motivated but have a much more diffuse target, for example, boycotting products or sharing political concerns with people via Facebook. This corroborates previous findings that see digital media as important mobilizers for democratic engagement (Bakker & de Vreese, 2011; Dimitrova et al., 2014; Ekström & Östman, 2015; Ha et al., 2013; Kushin & Yamamoto, 2010). However, most studies that focus on young citizens, disregard the question whether digital natives respond as strongly as older generations to digital media use as facilitator of political participation. This study finds mixed evidence for such a possibility: while young citizens are less activated on the basis of their *social media news use* than older citizens, this first generation of digital natives benefits more strongly from *online news use*. Hence, the easy access to political information and a personalized news diet on social media is more activating for older citizens' political behavior. This dampens the expectations and hopes that young citizens' frequent exposure to news on social media automatically translates into high levels of participation.

One main question in the literature about how digital media shape political behavior has been whether they contribute to new – activating or deactivating – understandings of citizenship (e.g., Bennett et al., 2011; Dalton, 2009; Shah et al., 2005; Thorson, 2015). This question is relevant because digital media have significantly changed the way 'to do things' when it comes to information exposure, social connection and personal expression. The study indeed finds that using digital news exposure to some extent shapes whether citizens emphasize citizenship as a choice or as a matter they can be successful in as an individual. The latter contributes positively to participation in a broad spectrum of political activities. While some studies found indication that digital media use contributes to young people feeling indifferent towards political participation (e.g., Mascheroni, 2015; Thorson, 2015), this is not the case for our study. On the contrary, social media news use counters citizens' perception that participation is an option they are free to deselect and thereby fosters political activity. Hence, these results can confirm previous studies suggesting that media use is an important means towards negotiating citizenship (De Vreese & Moeller, 2014; Lee et al., 2013). There is modest indication that the effects social media use has on citizenship understandings are responsible for the increased likelihood that citizens participate politically. Although future research needs to scrutinize this indirect relationship, the digital media environment seems to contribute to broader societal changes, such as new patterns of participation, by partly shifting the foundations of citizenship for all citizens, not only the young (Copeland & Feezell, 2017).

Collectively, these findings raise questions about the drivers of future generations becoming politically active. Mobilizing effects of digital media use are smaller for digital natives. Although they hold the same understandings of citizenship as older generations do, these new civic norms do not contribute to a political activation of the young – neither for traditional nor new ways to participate. We do not know if this is a generational or life-cycle effect (Quintelier, 2007). But if future young citizens replicate the behavior of this

first generation of digital natives, the model of a participatory democracy, which builds on activation through an informed citizenry, will experience new challenges (Strömbäck, 2005).

The modest effect sizes and the low explained variance of some of our models are noteworthy limitations of our study. In terms of digital media use predicting a citizenship understanding, a reasonable share of the variance is not explained. One possible reason is that our study solely focuses on media effects and does not include other socialization factors, such a parents and education (McLeod, 2000). Another main limitation is that the single-item measurement applied might not grasp the full extent of different citizenship understandings proposed by the study. It is a first and rather straightforward attempt to measure these multilayered constructs and follows Little et al. (1999), who suggest that the number of indicators is less crucial for construct measurement than their distance (i.e., correlation) from each other. Nevertheless, results have to be interpreted against the backdrop of potential measurement errors resulting from using a single-item measurement. It is furthermore possible that studying the formation of civic orientations – arguably a long-term process – over a rather short period of time, underestimates media effects on citizenship understanding. Hence, future research on media effects on civic norms should try to establish more complete models of how such citizenship understandings emerges (e.g., Shah et al., 2005) and apply a long-term panel design (e.g., Ekström & Shehata, 2018). Another point to stress is that the assessment of digital media use differs from measures of exposure used in other studies predicting political participation (Bakker & de Vreese, 2011; Moeller et al., 2018; Xenos et al., 2014). However, although the approach aims at a more precise measurement and its reliability was verified (Ohme, 2016), it is still unknown whether respondents over- or underestimate their actual exposure when being asked about it on a daily basis. Potential measurement errors, therefore, have to be taken into account when interpreting the results.

The innovative assessment of media exposure with a smartphone-based diary panel survey attempts at disentangling exposure from behavior by using data from two different waves. This approach aims to strengthen the causal argument in the model of the study but comes at the expense of panel attrition. Although our sample does not show strong deviations from our original panel in regard to socio-demographics and political interest (see note 2), no claim can be raised that the results are fully representative of the Danish population.

The approach of investigating the role of citizenship understanding at a time when digital media use and political participation are increasingly related is in many ways but a means to an end. It rather aims to contribute to an alternative understanding of underlying mobilization mechanisms in digital media next to more frequently studied indicators like political knowledge, efficacy or social capital. Although media effects may be rather limited, evidence is found for a transformation of civic norms in a post-industrial and highly individualized society, which eventually affects political participation. Hence, research should stay tuned to citizenship understanding as an influencing factor of political participation. The finding that digital media use only affects older citizens' participation indirectly through citizenship understanding is a pioneer example of the impact digitalization may have on the political sphere. It shows that we have to stay attentive to both directions: how being socialized in a digital media environment shapes democratic understandings and how certain political behaviors and attitudes that were learned much earlier can be 'updated' by digitalization.

Notes

1. Of the 13,700 people, 1700 were also recruited via the pollster's database.
2. Goodness-of-fit tests were used to test for sample differences between the original sample ($N = 9125$) and study participants ($n = 1322$) regarding gender (n.s.) income (>0.53, $p < .001$, Min = 1, Max = 18), age (>2.2 years, $p < .001$), political interest (>0.5, $p < .001$, Min = 0, Max = 10), mobile Internet use (>5.7%, $p < .001$) and social media use (n.s.).

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Notes on contributor

Jakob Ohme is Assistant Professor at the Centre for Journalism at the University of Southern Denmark. He recently finished his dissertation titled, New Media, New Citizens? How media exposure in a digital age shapes political participation'. In his research, he explores digital media effects on political participation and democratic citizenship. His work is concerned with the development of innovative exposure measurements that address evolving media use contexts in a digital age.

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Appendix 1

Audio

Where have you heard information about politics today?

- On the radio offline
- On the radio online
- From friends, family or colleagues
- Others (please specify)
- I haven't heard anything about politics today

Page

Where have you read information about politics today?

- In a printed newspaper
- On a website of a newspaper
- On other websites of media outlets (e.g. DR, TV2)
- On other websites, (e.g. blogs)
- On social media platforms like Facebook or Twitter
- Others
- I haven't read anything about politics today

How much of the information you've read online about politics today did you reach following links from social media?

- Most of it
- Some of it
- None of it
- I don't remember

What did you read on social media platforms about politics today?

- Posts, comments, tweets or links…
  - …by parties, politicians, political organizations or political actors
  - …by news media
  - …by other pages or blogs
  - …by friends and followers
- Paid ads from parties, politicians, political organizations or political actors
- Others

Were the posts or tweets by friends or followers mostly from…

- … people you know personally and have a close relationship with (e.g. good friends, family)?
- … people you know personally without having a close relationship (e.g. mutual friends)?
- … people you don't know personally?

Stream

Where have you watched information about politics today?

- On TV offline
- On broadcasters' websites (on demand or streamed live)
- On other websites (e.g. news pages or video platforms, e.g. YouTube)
- On social media platforms like Facebook
- Others (please specify)
- I haven't watched information about politics today

How much of the information you've watched online about politics did you reach following links from social media?

- Most of it
- Some of it
- None of it
- I don't remember

What did you watch on a social media platform about politics today?

- Political ads (e.g. suggestions, commercials)
- Videos posted by parties, political organizations or candidates
- Videos posted by TV or radio stations or newspapers
- Videos posted by other pages or profiles (e.g. news pages or blogs)
- Videos posted or shared by friends and followers
- Others

Were the videos posted or shared by friends or followers mostly from…

- … people you know personally and have a close relationship with (e.g. good friends, family)?
- … people you know personally without having a close relationship (e.g. mutual friends)?
- … people you don't know personally?

Appendix 2. Political participation by digital socialization (percentages).

	Digital native citizens	Non-digital native citizens
Political participation II (Targeted at political sphere)		
Via email or social media contacted a politician to express your opinion	6.4	13.7
Signed an online petition	33.1	33.9
Contacted a politician in person	3.7	11.0
Taken part in demonstrations, strike actions or other protest events	16.5	9.4
Signed a written petition (on paper) about a political or social issue	10.8	12.9
Donated money to a political party, a political organization or an interest organization	8.5	19.3
Encouraged or invited people to take part in demonstrations, strike actions or other protest events	20.0	10.8
Political Participation III (Targeted at community level)		
Maintained common facilities in your neighborhood (e.g., kindergartens, waterworks, parks, roads)	9.1	21.0
Participated in a meeting about your neighborhood	13.8	34.3
Collected money for a project in your neighborhood (e.g., by arranging or volunteering in a cultural event)	8.8	12.0
Supported a crowdfunding project to benefit your neighborhood	18.6	23.6
Participated in a cultural event to support projects in your community (e.g., a concert)	15.2	13.7
Done street art in your neighborhood (any kind of creativity visible in street life)	5.4	4.4
Used social media to inform about matters in your neighborhood (e.g., set up a website, blog or Facebook group)	15.9	15.7
Volunteered in an organization or community in your neighborhood (e.g., a civic organization or urban garden)	20.6	29.5
Political participation IV (Non-political, politically motivated)		
On Facebook or similar social media shared other users' updates concerning a political or societal matter	21.3	41.6
On your social media profile changed your personal information or photo due to a political or societal matter	7.9	9.0
In a status update on Facebook or similar social media expressed your opinion on a political or societal matter	35.3	28.4
Bought or boycotted products for political, ethical or environmental reasons	25.0	38.6
Initiated a political discussion or supported a political issue online, e.g., by creating a group on social media	11.8	9.5
Worn clothes or other visible objects with a political message (e.g., a badge or a bag)	13.5	7.8
N	296	1026

Note: activities done at least once in the last four months.

Appendix 3