



Norwegian
Business School

This file was downloaded from BI Open, the institutional repository (open access) at BI Norwegian Business School <http://biopen.bi.no>

It contains the accepted and peer reviewed manuscript to the article cited below. It may contain minor differences from the journal's pdf version.

Hoffmann, C.P. and Lutz, C. (2021), Digital Divides in Political Participation: The Mediating Role of Social Media Self - Efficacy and Privacy Concerns. *Policy & Internet*. <https://doi.org/10.1002/poi3.225>

Copyright policy of *Wiley*, the publisher of this journal:

Authors are permitted to self-archive the peer-reviewed (but not final) version of a contribution on the contributor's personal website, in the contributor's institutional repository or archive, subject to an embargo period of 24 months for social science and humanities (SSH) journals and 12 months for scientific, technical, and medical (STM) journals following publication of the final contribution.

<https://authorservices.wiley.com/author-resources/Journal-Authors/licensing/self-archiving.html>

Hoffmann / Lutz: Digital Divide(s) in Political Participation

Digital Divides in Political Participation: The Mediating Role of Social Media Self-Efficacy and Privacy Concerns

Christian Pieter Hoffmann, Leipzig University - Institute of Communication and Media Studies, Leipzig, Sachsen, Germany

Christoph Lutz, Handelshoyskolen BI - Department of Communication and Culture, Nydalsveien 37, Oslo 0484, Norway [christoph.lutz@bi.no]

Abstract

Scholarship on political participation and the Internet has found that Internet use may foster both online and offline political participation. However, research has also found pronounced inequalities in online political participation based on demographic and psychological characteristics. The article aims to advance our theoretical understanding of how inequalities in online and offline political participation emerge through cognitive pathways. It applies social cognitive theory to conceptualize the relationship between environmental influences, cognition and behavior. Using survey data from 1488 Internet users in Germany, we investigate how the cognitive dispositions of social media self-efficacy and online privacy concerns mediate the effect of socio-demographics on Internet use and online as well as offline political participation. Results indicate that younger citizens are more likely to engage in online political participation, while older, more educated, and male citizens are more likely to engage in offline political participation. Internet use is positively associated with online political participation, which is closely related to offline participation. Self-efficacy fully mediates the effect of education and gender on Internet use and online political participation. Thus, Internet use simultaneously amplifies and mitigates pre-existing participation divides, depending on users' cognitive dispositions.

KEY WORDS: Internet; Political Participation; Digital Divide; Social Cognitive Theory; Survey

Please cite as:

Hoffmann, C. P., & Lutz, C. (2019). Digital Divides in Political Participation: The Mediating Role of Social Media Self-Efficacy and Privacy Concerns. *Policy & Internet*, online first. <https://doi.org/10.1002/poi3.225>

Introduction

The effect of online media on political participation has received substantial research attention (Boulianne, 2009; 2015). As soon as citizens started using the Internet in large numbers, observers began to wonder how the new medium would affect citizens' engagement in the political process. Optimistic observers have associated a number of positive effects with online media: new media provide easy access to an unprecedented wealth of information (Gil de Zúñiga, Veenstra, Vraga, & Shah, 2010; Woodly, 2007). Social media, particularly, reduce barriers to public self-expression and afford non-elite citizens with access to the public agenda. They facilitate association with like-minded citizens, and support the organization and coordination of interest groups (Foot & Schneider, 2002; Pasek, More, & Romer, 2009; Wattal, Schuff, Mandviwalla, & Williams, 2010).

At the same time, digital divide research was quick to point out that not all citizens benefit equally from the opportunities created by new media (Hargittai, 2010; Van Deursen & Van Dijk, 2010). The Internet might even serve to reinforce pre-existing inequalities in political participation: Socio-demographics have been shown to affect Internet use, with low income and education as well as female citizens being less engaged online (DiMaggio, Hargittai, Celeste, & Shafer, 2004; Hargittai, 2002; Van Dijk, 2006). Analyses focused on creative and participatory forms of Internet use exploring the "second-level digital divide" (Hargittai, 2002), the "usage gap" (Van Dijk, 2006) and "participation divide" (Hargittai & Walejko, 2008; Hoffmann, Lutz, & Meckel, 2015) have found that users with low socio-economic status (SES), older and female citizens tend to use the Internet in less expressive or capital-enhancing ways (Correa, 2010; Hargittai & Walejko, 2008; Schradie, 2011; Zillien & Hargittai, 2009).

Yet, analyses of the socio-demographic stratification of online participation remain largely atheoretical. Popular frameworks, such as the "resource model" of participation (Brady, Verba & Schlozman, 1995), while descriptively strong, lack a differentiated understanding of why and how socio-demographic antecedents affect online participation (cf., Blank, 2013). Bimber (2001) therefore proposes that "cognitive pathways" need to be taken into consideration when analyzing the participatory effects of new media. Studies on the "participation divide" have also called for an analysis of the mediating effect of cognitive factors (Schradie, 2013). In this study, we propose social cognitive theory (SCT) as a theoretical framework for the exploration of cognitive pathways mediating the effect of socio-demographic variables on Internet use and online political participation.

SCT proposes that environmental influences, cognitive dispositions, and behavior form a causal model of "triadic reciprocity" (Bandura, 1977; 1986). Within this model, environmental factors influence cognitive dispositions, which in turn influence behavior. Thereby, SCT is especially conducive to an analysis of cognitive pathways connecting environmental influences, such as socio-economic endowment, to actual user behavior. Applying SCT, we interpret socio-economic variables as indicators of environmental influences, such as exposure and access to ICT, time and opportunity for usage, and social or cultural encouragement. Such influences can strengthen self-efficacy and reduce apprehensiveness or concerns (Bandura, 2005), thus affecting outcome expectations and ensuing behavior. SCT allows us to open the "black box" of how and why socio-demographics should stratify online political participation. We will focus our analysis on two cognitive dispositions that have been repeatedly shown to affect online behavior and that are of particular interest to the creative element of online political participation: social media self-efficacy, and privacy concerns (cf., Ambrose & Chiravuri, 2010; Hoffmann et al., 2015; Hsieh, Rai, & Keil, 2011). We thereby aim at providing a social-psychological explanation for the observable digital divide(s) in political participation, allowing for both a more differentiated understanding of the phenomenon and the derivation of policy recommendations. In summary, our study

will apply SCT to the phenomenon of digital divide(s) in political participation and address the following research question:

RQ: How do cognitive dispositions, such as social media self-efficacy and privacy concerns, mediate the effect of socio-demographic variables on Internet use and online political participation?

Our analysis is based on an online survey of 1488 German Internet users. Accordingly, we focus on the “second-level digital divide” or “participation divide” among Internet users. As our study is based on cross-sectional data, we apply SCT primarily to conceptualize the mediating role of cognition, rather than focusing on learning processes. We test our theoretical model using structural equation modelling.

Literature Review

Internet Use and (Online) Political Participation

For some years now, scholars have debated whether the Internet mitigates or reinforces citizens’ political and civic participation (Gil de Zúñiga, Jung, & Valenzuela, 2012; Wellman, Quan-Haase, Witte, & Hampton, 2001). One optimistic perspective—the “mobilization thesis”—proposes that the Web will increase citizens’ propensity to engage both civically and politically (De Vreese, 2007; see Wellman et al., 2001 for a short discussion). It argues that the Internet facilitates political engagement by offering easy access to political information and more convenient forms of political participation (e.g., online petitions) (Bimber, 2001; Boulianne, 2009). Scholars disagree on whether these new opportunities would actually mobilize previously inactive citizens (Krueger, 2002) or rather primarily foster the political engagement of already engaged citizens (Bimber, 1999; Norris, 2001).

Accordingly, the “reinforcement thesis” holds that those citizens who are more prone to engage politically will disproportionately benefit from the affordances of online media. Thus, the Internet may widen the participation gap between engaged and disengaged citizens (Norris, 2001). The “normalization thesis,” by contrast, suggests that politically avid citizens will only temporarily benefit disproportionately from new media as they will be quicker to adopt and make use of them. Once new media use becomes widespread, patterns of political participation will normalize (Bimber, 1999; Davis, 1999; Margolis & Resnick, 2000).

A number of studies have addressed these propositions based on empirical evidence. Various researchers have found that Internet use positively influences both political (Bakker & De Vreese, 2011; Di Gennaro & Dutton, 2006; Moy, Manosevitch, Stamm, & Dunsmore, 2005) and civic engagement (Stern & Dillman, 2006). These effects proved robust across cultural contexts (Kwak, Poor, & Skoric, 2006; Wang, 2007). Boulianne (2009; 2015) has conducted two meta-analyses of studies on online political participation, one focusing on Internet use, and one on the use of social media in particular. The first analysis, based on 38 studies, found barely any negative effects, but also little evidence for a strong positive effect, lending support to the normalization hypothesis. The latter analysis, based on 36 studies, did find evidence for a positive effect of social media use on political participation. It can be argued that the participatory affordances of social media are especially conducive to online participation.

The variety of studies exploring the effect of new media use on political participation as well as contradictory findings highlight the difficulty of establishing causal relationships between media use and participatory behavior, as well as clearly defining and accurately measuring political participation

(Kruikemeier, Van Noort, Vliegenthart, & De Vreese, 2013; Moy et al., 2005; Pasek et al., 2009). A prominent definition, which we will follow in this analysis, describes political participation as an “activity that is intended or has the consequence of affecting, either directly or indirectly, government action” (Verba, Schlozman & Brady, 1995, 7). Over time, the concept of political participation has ceased to refer solely to electoral participation, but has been extended to unconventional political acts (e.g., protesting), and non-political activities (e.g., volunteering for a social cause) (Theocharis & van Deth, 2018).

Theocharis (2015) argues that current analyses of political participation should account for the affordances of digital platforms, such as social networking sites. Online participation, in general, has been defined as “the creation and sharing of content on the Internet addressed at a specific audience and driven by a social purpose” (Lutz, Hoffmann, & Meckel, 2014). In the case of online *political* participation, this purpose would be affecting the political awareness, attitudes, decisions and actions of others (Calenda & Meijer, 2009; Collin, 2008). We will apply this understanding of online political participation in the present study. Gibson and Cantijoch (2013) distinguish acts of online and offline political participation into nine categories or modes of action, namely: voting; party / campaign activities; protest activities; contacting; communal actions; consumerism; news attention; discussion; and the expressive mode. The latter, in particular, focuses on users’ political self-expression as afforded by digital platforms such as social network sites.

Socio-Demographic Antecedents of (Online) Political Participation

Assuming that Internet use, and social media use, in particular, is associated with online and offline political participation—what does that mean for citizens’ engagement in the political process? A number of studies have shown that not all citizens are equally likely to participate in the digital sphere (Brandtweiner, Donat, & Kerschbaum, 2010; Van Deursen & Van Dijk, 2010). Of course, a socio-demographic stratification of users’ willingness or ability to exploit the opportunities provided by online media will have important repercussions for the Internet’s effect on political participation. Previous analyses of the “second-level digital divide” have found that socio-demographic antecedents such as education, income, gender and age, differentiate participatory Internet uses (Hargittai, 2010).

High SES citizens are held to use the Internet in a more productive, capital-enhancing way, because they command the necessary resources as well as skills to actively use online media (Hargittai & Hinnant, 2008; Van Deursen & Van Dijk, 2010; Zillien & Hargittai, 2009). Applied to the context of political participation, this means that high SES citizens, who are already more likely to participate politically, will also be more likely to engage in online political participation, which further stimulates offline political participation. In fact, education and income have both been shown to positively impact online political participation (Best & Krueger, 2005; Gibson, Lusoli, & Ward, 2005; Kwak et al., 2006).

Looking at gender differences, most studies found that men are more prone to participate politically than women (Kaufhold, Valenzuela, & Gil de Zúñiga, 2010). Calenda and Meijer (2009) showed that among students in three European countries (Italy, Spain, and the Netherlands), men were significantly more likely than women to participate offline, both in traditional (e.g. parties) and new forms (e.g. cause-related NGOs). The same holds true for online political participation (Albrecht, 2006; Di Gennaro & Dutton, 2006; Gibson et al., 2005). Again, such an effect of gender on online participation may well aggravate pre-existing inequalities as studies indicate that males generally score higher in political interest (Gibson et al., 2005; Wang, 2007).

Age is another important demographic predictor of both online and offline participation (Macafee & De Simone, 2012; Theocharis, 2011). While age has been

shown to positively impact offline political participation (Gibson et al., 2005; Wang, 2007), it commonly affects Internet use negatively. Therefore, the overall effect of age on online political participation is ambivalent. Di Gennaro and Dutton (2006) find that younger citizens rely more heavily on online participation than on offline participation. Similarly, Oser, Hooghe and Marien (2013) show that among politically active citizens, those using the Internet for participation purposes are younger. Collin (2008) demonstrates that young people's political engagement is very much driven by the Web and its affordances. Still, even among youth, male and highly educated citizens are most likely to be politically engaged online (Livingstone, Bober, & Helsper, 2005).

In summary, empirical evidence suggests that, when it comes to the effect of Internet use on political participation, not all citizens are equally likely to benefit from new media affordances. Yet, in order to understand whether digital media aggravate or ameliorate gaps in political participation, and to derive policy recommendations, a sound theoretical rationale is required to reliably explain the observed disparities. In the next section, we will introduce social cognitive theory as a lens through which to study the shape and scope of digital divide(s) in political participation.

A Social Cognitive Perspective on the Participation Divide

A popular framework for the study of inequalities in political engagement has been provided by the "resource model" of participation (Brady et al., 1995). This model proposes that resource availability significantly bolsters political participation. Time, money and civic skills are held to facilitate political engagement—higher SES citizens are therefore more likely to be engaged in the political process. A similar rationale has been applied to citizens' online participation: The availability of resources, such as time and money, facilitates access to the Internet (DiMaggio et al., 2004; Hargittai, 2002), creative and expressive Internet uses (Brandtweiner et al., 2010; Hargittai, 2010; Van Deursen & Van Dijk, 2010), as well as online political participation (Best & Krueger, 2005; Krueger, 2002).

Criticism has been levelled at resource-focused approaches, because they tend to ignore psychological antecedents of political participation, such as interest, motivation, attitudes or self-efficacy. That said, Brady and colleagues (1995, 271) considered this a strength of the resource model-approach: "We are more confident in our ability to measure resources than in our ability to measure psychological engagement." However, Bimber (2001) found that socio-economic variables alone cannot explain differences in political participation and called for an exploration of "cognitive pathways" when analyzing the participatory effects of new media. This notion follows Bandura's thinking, when he states that "ready access to communication technologies will not necessarily enlist active participation unless people believe that they can achieve desired results by this means" (Bandura, 2001, 287). In other words, resource availability, opportunity, and encouragement shape behavior if individuals develop positive outcome expectations, which rely heavily on self-referent thought (Bandura, 1982, 2005). Recent studies on the participation divide have also called for an analysis of the mediating effect of cognitive factors (Hoffmann et al., 2015; Schradie, 2013). According to these studies, perceived skills moderate some effects of socio-demographics on online content creation (Blank, 2013; Correa, 2010; Hargittai & Walejko, 2008). Similarly, Schradie (2011) found that a playful attitude towards information and communication technology (ICT) is a key driver of creative use, while user concerns inhibit content creation.

Social cognitive theory (SCT) provides a helpful theoretical framework for the exploration of cognitive pathways in online political participation (Bandura, 1977; 1986; 1991). SCT proposes that environmental influences, personal

dispositions, and behavior form a causal model of “triadic reciprocity.” Within this model, environmental factors influence personal dispositions (such as cognitions), which in turn influence behavior. At the same time, behavior also affects personal dispositions and the environment. Despite the reciprocity of cognitions, the environment, and of behavior, Bandura (2001, 267) asserts that “most external influences affect behavior through cognitive processes rather than directly.” In this study, we will follow this rationale by conceptualizing cognitions as mediators between indicators of environmental influences, i.e., socio-economic variables, and behavior. It should be noted that SCT is most commonly applied in learning studies and tends to imply a dynamic model of cognitive-behavioral interaction. The present analysis, instead, focuses on the mediating effect of cognition to enrich our understanding of participation divides. Thus, it conceptualizes environmental influences largely as imposed, rather than created (Bandura, 1982). Since the analysis does not delve into more dynamic (learning) effects, it constitutes only a partial representation and application of SCT. However, SCT has previously been applied to ICT use in this vein, showing that social and environmental factors—such as training and ICT access—impact personal dispositions, which in turn affect user behavior (Ambrose & Chiravuri, 2010; Compeau & Higgins, 1995; Wei, Teo, Chan, & Tan, 2011).

Our study focuses on two cognitive dispositions, in particular, that potentially constitute important “pathways” connecting environmental influences with behavior in the form of online political participation: social media self-efficacy and privacy concerns. Given our definition of online political participation as the creation and sharing of content online with the purpose of affecting the political awareness, attitudes, decisions and actions of others, we propose that cognitive dispositions related to these “expressive” (cf., Gibson & Cantijoch, 2013) forms of Internet use should be of particular relevance for mediating the effect of environmental influences on behavior. While social media self-efficacy can be understood as a cognitive disposition conducive to creating and sharing online content, privacy concerns should, instead, impede such behavior.

Self-efficacy is an element of SCT often considered in ICT acceptance and use studies. Self-efficacy denotes a personal judgement of “how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, 122). Bandura differentiates individual and collective efficacy, with the latter lying at the heart of the present study. He finds that an individual’s behavior is strongly affected by their appraisal of their own capabilities (Bandura, 1977). Conversely, doubts about one’s own capabilities deter one from engaging in an action. Thereby, self-efficacy differs from the skills concept (cf., Hargittai & Hinnant, 2008) in that users with low self-efficacy would tend to refrain from applying even existing skills. Self-efficacy has been applied to the use of ICT in various adaptations, such as computer self-efficacy (Compeau & Higgins, 1995; Barbeite & Weiss, 2004) or Internet self-efficacy (Kim & Glassman, 2013). It has variously been shown to drive users’ willingness and ability to use ICT (Compeau, Higgins, & Huff, 1999; Venkatesh & Bala, 2008; Venkatesh, Morris, Davis, & Davis, 2003). We apply the concept to the use of social media as—even though not all forms of online political participation require social media—these platforms are tailored towards the creation and sharing of online content. They also afford various forms of social networking, collaboration and coordination (up to and including “connective action,” cf. Bennett & Segerberg, 2012) that are particularly salient in political engagement.

By contrast, a cognitive disposition that is held to exert an inhibiting effect on user behavior is that of user anxiety or concerns (Barbeite & Weiss, 2004). The more concerns regarding an ICT, the less willing individuals are to use it (Compeau et al., 1999; Venkatesh & Bala, 2008). One concern that is variously discussed in the literature and shown to inhibit Internet is online privacy (Smith, Dinev, & Xu, 2011). Sharing personal data online makes users vulnerable to the potential loss of control over the spread and use of these data (Culnan & Armstrong, 1999). This

vulnerability induces privacy concerns, which are based on assessments of the likelihood and extent of adverse consequences from information disclosures (Malhotra et al., 2004). Even in the setting of a liberal democracy, the creation and sharing of political content online can be seen as sensitive, as it potentially exposes users to risks of profiling, abuse or harassment (Zerback & Fawzi, 2017). Various authors have highlighted the expressive, even performative nature of political participation. By participating politically, citizens attract attention and affect the impression they leave on others (Scheufele & Eveland, 2001; Stanyer, 2005).

Analyzing cognitive factors, based on SCT, has proven to be helpful in differentiating the effect of socio-demographics on ICT user behavior (Hsieh et al., 2011; Wei et al., 2011). Since socio-demographic variables can reflect a specific environmental influence on user dispositions, their effect on user behavior tends to be mediated by cognitive dispositions. Whether or not a personal or demographic variable signifies distinct environmental influences depends largely on the social context or environment, such as political (e.g., regulation), cultural (e.g., discrimination), technological (e.g., affordances), economic (e.g., Internet access) or institutional (e.g., education) conditions. For example, the influence of gender on online and offline participation depends on the cultural context, as it may have bearing on women's exposure to ICT and politics relative to that of men (Doney & Canon, 1997; Wei et al., 2011). Similarly, the effect of age on online participation depends on the institutional context, for example, on school curricula, workplace Internet guidelines, and the existence of online courses for elderly or retired citizens. Likewise, the impact of SES on participation is shaped by political decisions, for example when certain Internet content is censored and only educated and tech-savvy users can access it (Nabi, 2014).

In our specific case, the social environment in question is Germany. In terms of Internet connectivity, Germany is typical for European countries: 88 percent of the German population use the Internet in 2016 (Internet Live Stats, 2017). Facebook is popular in Germany (around 38 million users or 46 percent of the population in 2016; Statista, 2019). However, Germans tend to report high levels of privacy concerns compared with other EU countries (Eurobarometer, 2011). Online political participation is relatively low (Lutz et al., 2014), which, again, is in line with other European countries. In other words, while largely a typical case of a developed, liberal Western democracy, relatively high privacy concerns among German citizens may make Germany a particularly interesting case to examine the research model developed here.

Younger, male and higher SES users have variously reported higher levels of Internet self-efficacy and lower levels of ICT anxiety or concerns, indicating environmental influences on personal dispositions favoring ICT use (Venkatesh & Morris, 2000; Wei et al., 2011). In terms of age, this may be due to higher levels of exposure to ICT, time availability, and social or peer pressure to use online platforms among youth. As to gender, gender stereotypes characterize technology as a "male" domain, resulting in less female exposure to ICT. Education, which tends to correlate with income, denotes both a higher level of resource availability to afford online platform usage, higher levels of exposure (e.g., during education), and higher levels of aptitude, especially in terms of participatory ICT usage. Bandura (2005) points out that exposure to a behavior can strengthen self-efficacy and reduce apprehensiveness or concerns. Thereby, the facilitating influences indicated by youth, male gender and education can be expected to increase social media self-efficacy and reduce privacy concerns.

Based on SCT, we analyze the relationship between socio-demographic antecedents, cognitive dispositions and reported behavior. Specifically, we investigate the mediating effects of social media self-efficacy and privacy concerns on Internet use and online political participation. In sum, we provide a theoretically substantiated, differentiated understanding of digital divide(s) in political participation (see Figure 1). We expect social media self-efficacy to increase and privacy concerns to decrease both Internet use and online political participation (cf.,

Best & Krueger, 2005; Di Gennaro & Dutton, 2006; Livingstone et al., 2005; Velasquez & La Rose, 2014). Additionally, social media self-efficacy is held to reduce privacy concerns. Based on previous findings, we would expect younger, highly educated and male users to report higher levels of social media self-efficacy and lower levels of privacy concerns, while the reverse should hold for their older, less educated and female counterparts. Finally, we also test for a direct effect of Internet use on offline political participation, as Internet use may increase political engagement through information exposure, even when this effect is not mediated through online engagement. The relationship between online political participation and offline political participation is specified as correlational rather than causal as the two can mutually affect and reinforce each other. We expect a positive and pronounced association between online political participation and offline political participation.

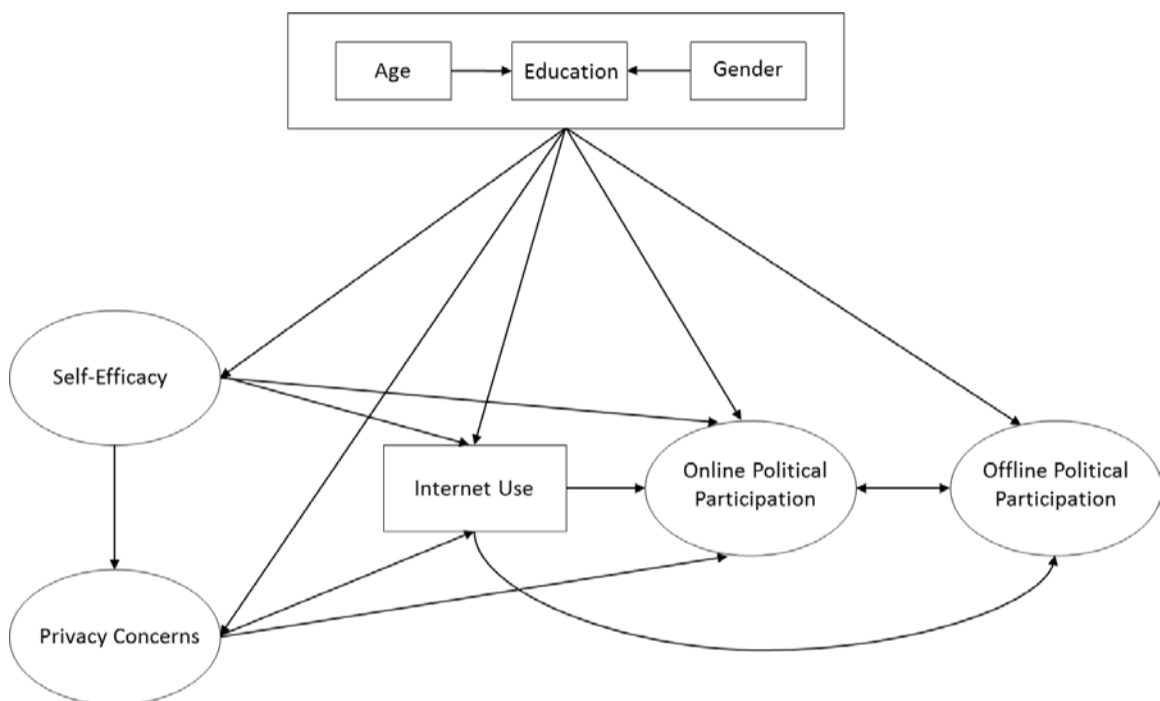


Figure 1. Research Model

Data and Measurement

Sample and Measures

We address our research questions based on an online survey conducted among German Internet users. The survey sample was provided by a leading international and ESOMAR-certified market research institute through an online access panel. A gender, age and regional representation in line with the German population was ensured by defining quotas for these attributes. We chose not to survey Internet non-users since this segment of the population (approximately 12 percent of the total German population) would not exhibit any online political participation at all. During August 2013, 4089 users were invited to participate in the survey by email and 1488 users responded (response rate: 36 percent). Participants were offered a small monetary incentive. The overall sample composition is summarized in Table 1. We find that highly educated users are slightly overrepresented in our sample.

Table 1. Profile of Respondents (N=1488)

Measure	Item	N	Percent	Missing Values
Age	18-29 years	231	16.9	0
	30-39 years	201	14.1	
	40-49 years	301	19.8	
	50-59 years	271	17.7	
	60 years and above	484	31.5	
	<i>Total</i>	1488	100	
Gender	Female	746	51.1	0
	Male	742	48.9	
	<i>Total</i>	1488	100	
Education	No graduation	1	0.1	6
	Lower secondary school qualification without professional education	14	0.9	
	Lower secondary school qualification with professional education	180	12.1	
	Secondary school qualification without professional education	46	3.1	
	Secondary school qualification with professional education	416	28.0	
	General qualification for university entrance without professional education	86	5.8	
	General qualification for university entrance with professional education	249	16.7	
	University of applied sciences degree	167	11.2	
	University degree	323	21.7	
	<i>Total</i>	1482	100	

The questionnaire surveyed participants on their Internet use, socio-demographics, social media self-efficacy, privacy concerns, and online and offline political participation. We chose to apply a composite measure of three items that were modelled on established measures of Internet self-efficacy (cf. Compeau et al., 1999; Venkatesh et al., 2003; Venkatesh & Bala, 2008) but applied to the use of social media. We focused on relatively complex social media tasks that are not very commonplace in Germany (posting on YouTube, Twitter and Wikipedia) in order to focus on “prospective situations” as defined by Bandura (1982). Privacy concerns were measured with three items from Malhotra, Kim and Agarwal’s (2004) global information privacy concern measure. Internet use was assessed both in terms of frequency and breadth. Our measure asked for the frequency of use of different online applications (blogs, social networks, microblogs, media platforms, search engines, online games, online newspapers, apps, and online shopping/online banking), each based on a six-point Likert-scale from one (“never”) to six (“several times a day”). We created a summative index for the overall measure which ranged from nine (no use of any application at all) to 54 (use of all applications several times a day).

The measure for online political participation was derived from previous studies (Calenda & Meijer, 2009; Collin, 2008) and asked participants to rate the frequency of four participatory Internet uses for political purposes on a five-point Likert-scale. In line with our definition, we focused on the creation and sharing of content directed at other users. We focused on forms of political participation that can be considered contingent upon the affordances of social media (Theocharis, 2015), to distinguish online from offline participation. These activities largely fall into the category of “expressive” modes of participation as described by Gibson and Cantijoch (2013). Finally, the offline political participation measure was composed of four political activities, again rated on a five-point Likert scale (Gil de Zúñiga et al., 2010; Moy et al., 2005; Smith, Schlozman, Verba, & Brady, 2009). To mirror our conceptualization of online participation, our offline participation items were geared towards social or collective forms of engagement, such as meetings, rallies and engagement in parties or groups. These activities fall into the categories of party/campaign activities, protest activities, and communal actions, as outlined by Gibson and Cantijoch (2013). Not included in this measure was the most prevalent single form of political engagement, voting, as its distribution does not lend itself to the inclusion in a composite measure. The wording of the items used for the latent constructs is shown in Appendix A.

Measurement Model

We used structural equation modelling (SEM) to include latent variables and to test both the direct and mediated effects of the socio-demographic variables on Internet use, online and offline political participation. To conduct the analyses we used MPlus (Version 7) Statistical Software, relying on robust Maximum Likelihood Estimation (MLR), so as to account for non-normality and other sources of distortion, such as heteroscedasticity and non-normal distribution of error terms (Byrne, 2012). The complete measurement model of all latent constructs can be found in Appendix B. It satisfies the necessary conditions (Bollen, 1989), i.e., has convergent and discriminant validity (Fornell & Larcker, 1981; see Appendix C). We found comparatively low factor loadings for one of the privacy concerns items, yet, since the measure was based on an established and overall reliable scale, we chose to include it in the analysis.¹

Results

We find that survey participants are avid Internet users, although use frequency differs by online application. Search engines are by far the most frequently used application (mean=4.89), followed by social networking sites (mean=3.18). Participants rarely use microblogs (mean=1.52), blogs (mean=1.88) and online games (mean=2.36). Overall, we find relatively low levels of political participation, both online and offline. Only between four and eight percent of participants frequently engage in the online and offline political participation activities covered in the survey. These findings are in line with previous studies

¹ We carried out principal component analyses (PCAs) prior to the SEM to test the unidimensionality of the constructs. The PCAs confirmed that our constructs were in fact unidimensional and had good internal consistency. The KMO for Online Political Participation was 0.839 and the KMO for Offline Political Participation was 0.830, showing “meritorious” fit (Kaiser, 1974). The PCA for social media self-efficacy (loadings of 0.902, 0.916, 0.874; KMO of 0.733) and privacy concerns (loadings of 0.733, 0.836 and 0.831; KMO of 0.656) both showed unidimensionality, with only one component extracted.

conducted in Germany (Emmer, Wolling, & Vowe, 2012; Köcher & Bruttel, 2011) and in the US (Smith, 2013).

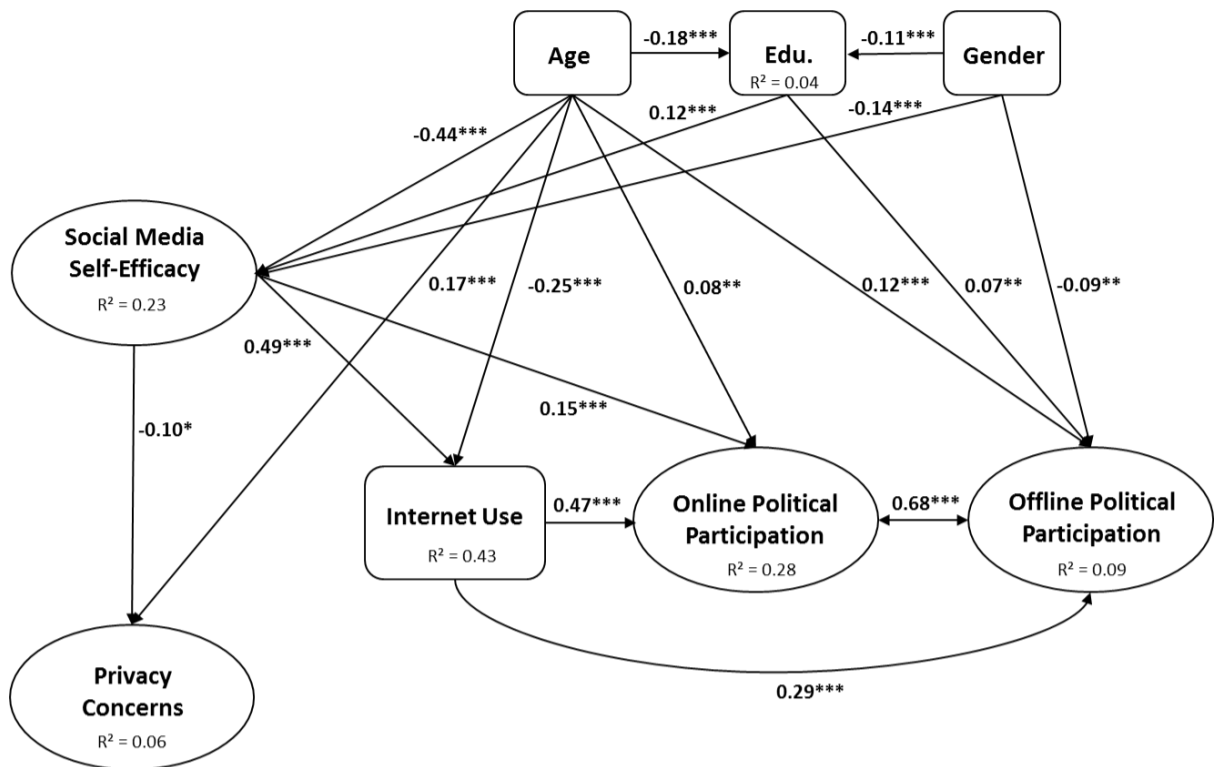


Figure 2. Mediated Model of Political Participation (significant relationships only)

Table 2. Goodness of Fit Values

Chi-square	341.504
df	109
RMSEA	0.038
CFI	0.979
TLI	0.971
SRMR	0.032

Figure 2 presents the research model for the overall sample (N=1488). As expected, higher educated (0.12***), younger (-0.44***) and male (-0.14***) citizens exhibit higher levels of social media self-efficacy. Older users show higher levels of privacy concerns (0.17***), but there is no significant education or gender effect on privacy concerns. As suggested by SCT, social media self-efficacy promotes Internet use (0.49***) as well as online political participation (0.15***). By contrast, privacy concerns do not exert a significant influence on either. Social media self-efficacy does, however, reduce privacy concerns (-0.10*).

The analysis reveals a strong significant effect of Internet use on online political participation (0.47***). We find that online and offline political participation are strongly related (correlation of 0.68***). There is a positive and significant direct effect of Internet use on offline political participation (0.29***). Thus, Internet use seems to foster offline political engagement, even after accounting for the creative and social Internet uses captured by online political

participation. As discussed above, we ascribe this effect predominantly to the positive effect of political online information on participation, as informational Internet uses are not covered by our measure of online participation, but have been shown to positively affect political participation (Boulianne, 2009).

We find that the effects of education and gender on Internet use and online political participation are fully mediated by social media self-efficacy and that the effect of age is partly mediated by both cognitive dispositions. Still, the unmediated effect of age on Internet use remains significant (-0.25^{***}). Older citizens tend to be more politically engaged, both online (0.08^*) and offline (0.12^{***}). More educated (0.07^{**}) and male (-0.09^{**}) citizens show higher levels of offline political participation. Table 3 shows the indirect effects with Internet use as well as privacy concerns as mediators. Notably, indirect effects of social media self-efficacy on both online and offline political participation through Internet use are significant. They are stronger for online political participation (0.15^{***}) than for offline political participation (0.05^{***}) but positive in both cases. For privacy concerns, the indirect effects are weaker and only marginally significant, but negative.

Table 3. Indirect Effects of Self-Efficacy and Privacy Concerns on Offline and Online Political Participation (Through Internet Use)

Effect	Effect Size	P-value
Self-efficacy -> Internet Use -> Offline Political Participation	0.077	0.000
Self-efficacy -> Privacy Concerns -> Internet Use -> Offline Political Participation	0.001	0.105
Privacy Concerns -> Internet Use -> Offline Political Participation	-0.019	0.049
Self-efficacy -> Internet Use -> Online Political Participation	0.150	0.000
Self-efficacy -> Privacy Concerns -> Online Political Participation	-0.002	0.162
Self-efficacy -> Privacy Concerns -> Internet Use -> Online Political Participation	0.001	0.113
Privacy Concerns -> Internet Use -> Online Political Participation	-0.036	0.054

Table 4 shows the overall indirect effects of the demographic variables on offline and online political participation. The indirect effects for age are particularly strong (-0.29^{***} for online political participation and -0.16^{***} for offline political participation). As opposed to the positive direct effect, the negative indirect effects imply an alternative trajectory, where younger people are more participatory due to their Internet affinity and self-efficacy. In fact, closer inspection of the specific indirect effects that contribute to the overall indirect effects of age on political participation show that the path via Internet use (age -> Internet use -> political participation: -0.07^{***} for offline and -0.12^{***} for online political participation)

and Internet use and social media self-efficacy (age -> Internet use -> social media self-efficacy -> political participation: -0.06^{***} for offline and -0.10^{***} for online political participation) contribute most to the overall indirect effect.

Table 4. Indirect Effects of Demographic Variables on Offline and Online Political Participation (Through Self-Efficacy, Privacy Concerns and Internet Use)

Effect	Total Indirect Effect Size	P-value
Education -> Self-Efficacy / Privacy Concerns / Internet Use -> Offline Political Participation	0.023	0.004
Age -> Education / Self-Efficacy / Privacy Concerns / Internet Use -> Offline Political Participation	-0.157	0.000
Gender -> Education / Self-Efficacy / Privacy Concerns / Internet Use -> Offline Political Participation	-0.043	0.000
Education -> Self-Efficacy / Privacy Concerns / Internet Use -> Online Political Participation	0.053	0.000
Age -> Education / Self-Efficacy / Privacy Concerns / Internet Use -> Online Political Participation	-0.286	0.000
Gender -> Education / Self-Efficacy / Privacy Concerns / Internet Use -> Online Political Participation	-0.072	0.000

Overall, we find evidence for digital divides in political participation. In effect, the close association of online and offline participation may compound existing inequalities for less educated and female users, since highly educated and male citizens are both more likely to be politically engaged on the Internet as well as offline. In the case of younger citizens, though, the Internet may in fact help bridge the participation divide, since these active Internet users may be more motivated to engage politically online, which is strongly related to offline political participation.

Discussion and Conclusion

Does the Internet facilitate political participation, and if yes, for whom? A number of studies have addressed the impact of online media on political participation. Many found that Internet use does indeed contribute to political participation, most markedly so in the case of social media (Boulianne, 2009; 2015). However, digital divide research has found that not all citizens are equally likely to take advantage of online media (DiMaggio et al., 2004; Hargittai, 2010; Van Dijk, 2006). In order to judge whether the Internet will create access to the political process for a wider selection of citizens, we need to understand the scope and nature

of digital divide(s) in political participation (Vitak et al., 2011). However, a differentiated, causal understanding of these divides requires a sound theoretical foundation that goes beyond mere resource availability and takes account of “cognitive pathways,” or cognitive mediators between socio-demographics and behavior (Bimber, 2001).

Based on SCT, we propose that the effect of socio-demographic variables on Internet use and online political participation observed in previous empirical analyses are mediated through cognitive dispositions. In the case of gender and education, these effects are even fully mediated. Thereby, socio-demographics signify environmental influences that affect cognitive dispositions, which in turn relate to behavior (Bandura, 1977; 1986). In other words, we are able to observe a socio-demographic stratification of online political participation (affecting offline participation) because distinct environmental influences related to these socio-demographics shape individual dispositions, such as social media self-efficacy, which inform online behavior. This theoretical understanding of digital divides is especially relevant as our analysis reveals that Internet use is, in fact, strongly and positively related to online political participation, which in turn is closely associated with offline political participation. To facilitate a uniformly beneficial effect of new media affordances on political participation, therefore, a differentiated understanding of the cognitive antecedents of online engagement is required.

Our analysis reveals the important role social media self-efficacy plays in online political participation: users’ judgments of their own ability to perform a specific online behavior (Bandura, 1977; Compeau & Higgins, 1995) differ significantly by age, education and gender, while exerting a strong influence on Internet use, in general, and online political participation, in particular. We find that for less educated and female citizens, the Internet tends to reinforce pre-existing inequalities in political participation (in line with the “reinforcement thesis”). These citizens tend to be less politically engaged offline, yet they also exhibit lower levels of social media self-efficacy. They therefore do not benefit from the facilitating effect of Internet use on political participation, while male and more educated citizens are more likely to do so.

In terms of age, instead, our analysis lends support to the “mobilization thesis”: Younger citizens report higher levels of social media self-efficacy and lower levels of privacy concerns—both the mediated and direct effect of age on Internet use, therefore, is negative. Since offline, older citizens tend to be more politically engaged, the affordances of the Internet should disproportionately benefit the political participation of young citizens. This finding is in line with previous analyses highlighting younger citizens’ propensity to rely on online political participation (Di Gennaro & Dutton, 2006; Oser et al., 2013). Based on SCT, these findings can be ascribed to cognitive dispositions that are significantly more conducive to online engagement, possibly due to the technological socialization of recent cohorts (Palfrey & Gasser, 2008).

Somewhat surprisingly, we find that privacy concerns do not directly influence Internet use or online political participation (although we observe some rather small indirect effects). Clearly, self-efficacy plays a much more dominant role in the relationships tested by our model. The lack of an effect of privacy concerns is in line with observations of a “privacy paradox” (Kokolakis, 2017). To date, a number of explanations for this paradox have been put forth, such as the privacy calculus, lack of awareness or privacy resignation and cynicism. However, measures for these effects were not included in our research model.

Our analysis is able to highlight the suitability of SCT for analyses of online political participation as well as the importance of taking account of cognitive pathways when estimating the effect of new media on citizens’ opportunity to engage in the political process. As mentioned above, working with cross-sectional data, we applied a rather static reading of SCT to our subject matter, ignoring the more dynamic learning processes implied by SCT. Thereby, SCT actually reaches beyond the mediating effects of cognitions highlighted in this analysis and would

lend itself to more extensive analyses of participation divides, particularly based on longitudinal data. Similarly, our cross-sectional study was not able to take account of the normalization thesis: With time, environmental influences affecting cognitive dispositions may change. That said, our analysis focused on Internet users only and explored well-established and familiar Internet uses. It remains questionable therefore, whether time will, in effect, be able to close the digital divides revealed in this analysis. In either case, SCT should provide a helpful theoretical foundation for panel studies, as it takes account of changes in environmental influences shaping cognitive dispositions and behavior.

Another worthwhile extension of this analysis would be a differentiation of distinct non-political Internet uses, as they may vary in their effect on online and offline political participation (Bakker & De Vreese, 2011; Kruikemeier et al., 2013). For example, informational Internet uses are held to be especially helpful in facilitating political participation (Pasek et al., 2009; Wang, 2007). We ascribe the identified direct effect of Internet use on offline participation to this influence. Again, SCT could be helpful in differentiating antecedents to distinct Internet uses and the associated learning processes, further enriching our understanding of why some citizens take advantage of new media affordances in political participation, while others (still) do not. In terms of the cognitive dispositions relevant to the matter at hand, it should be noted that several arguably important concepts were not examined in this analysis, mostly due to space constraints in the applied survey, key among them political interest and political efficacy. This constitutes a limitation of our study and provides opportunities for future research to explore additional important cognitive dispositions. In terms of environmental influences, we could have included additional variables pertaining to individuals' life situation. Most importantly, we did not assess income due to the sensitive nature of the topic, particularly in a German context. Beyond income, citizens' family situation, their occupational status, and their socio-cultural milieu could account for additional variation in social media self-efficacy, privacy concerns, Internet use and political participation. Future research should consider a more holistic set of antecedents as environmental influences.

From a policy-making perspective, our study confirms the positive effect of Internet use on political participation—online as well as offline. Providing comprehensive (high-speed) Internet access, therefore, should remain a policy priority. The strong mediating role of social media self-efficacy in online political participation indicates that educational policies should strive for more equal opportunities by providing more intensive training and support at lower levels of schooling and possibly targeted training opportunities for female students. SCT lends support to the notion that self-efficacy can be affected by environmental influences such as support, encouragement and training. Such training opportunities should also be offered outside of schools or universities, to reach a less-educated and older populace.

Of course, in the case of gender inequalities, the observable pattern of lower levels of social media self-efficacy and offline political engagement is worthy of more focused explorations of societal, economic and familial influences (Venkatesh & Morris, 2000; Wei et al., 2011). Bandura's (2001) notes on the role of SCT in mass communication could be instructive in that regard. He proposes that learning based on modeling can also occur due to the observation of media content. In addition, it can be amplified through interpersonal networks. Therefore, the portrayal of the relationship between, for example, older adults or women and ICT in media content may affect self-efficacy among these demographics. Aside from the portrayal of more positive role models in mass media content, mutual support initiatives can play a constructive role to leverage this effect—SCT stresses that individual efficacy tends to be related to collective efficacy.

This study focuses on participatory Internet use, its antecedents and role in political participation. While we confirm the sociodemographic stratification of offline political participation along the lines of age, gender and education, we find

that Internet use can, at least partially, attenuate this offline divide by facilitating the political engagement of youth. “Get out the vote” campaigns in social media, for example, have garnered promising results so far by exerting a positive effect on voting participation among younger users.

References

- Albrecht, S. (2006). Whose voice is heard in online deliberation? A study of participation and representation in political debates on the Internet. *Information, Communication & Society*, 9(1), 62-82.
- Ambrose, P., & Chiravuri, A. (2010). A socio-cognitive interpretation of the potential effects of downsizing on software quality performance. *Information Systems Journal*, 20(3), 239-265.
- Bakker, T. & De Vreese, C. (2011). Good news for the future? Young people, Internet use, and political participation. *Communication Research*, 38(4), 451-470.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Process*, 50(2), 248-287.
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology*, 3(3), 265-299.
- Bandura, A. (2005). The evolution of social cognitive theory. In K. G. Smith & M. A. Hitt (Eds.), *Great Minds in Management* (pp. 9-35). Oxford: Oxford University Press.
- Barbeite, F., & Weiss, E. (2004). Computer self-efficacy and anxiety scales for an Internet sample: testing measurement equivalence of existing measures and development of new scales. *Computers in Human Behavior*, 20(1), 1-15.
- Bennett, W.L., & Segerberg, A. (2012). The logic of connective action. *Information, Communication & Society*, 15(5), 739-768.
- Best, S., & Krueger, B. (2005). Analyzing the representativeness of Internet political participation. *Political Behavior*, 27(2), 183-216.
- Bimber, B. (1999). The Internet and citizen communication with government: Does the medium matter? *Political Communication*, 16(4), 409-428.
- Bimber, B. (2001). Information and political engagement in America: The search for effects of infor
- Blank, G. (2013). Who creates content? Stratification and content creation on the Internet. *Information, Communication & Society*, 16(4), 590-612.
- Bollen, K. (1989). *Structural equations with latent variables*. Hoboken, NJ: Wiley.
- Boulianne, S. (2009). Does Internet use affect engagement? A meta-analysis of research. *Political Communication*, 26(2), 193-211.
- Boulianne, S. (2015). Social media use and participation: a meta-analysis of current research. *Information, Communication & Society*, 18(5), 524-538.
- Brady, H., Verba, S., & Schlozman, L. (1995). Beyond SES: A resource model of political participation. *The American Political Science Review*, 89(2), 271-294.
- Brandtweiner, R., Donat, E., & Kerschbaum, J. (2010). How to become a sophisticated user: A two-dimensional approach to e-literacy. *New Media & Society*, 12(5), 813-833.
- Byrne, B. (2012). *Structural equation modeling with Mplus*. London: Routledge.
- Calenda, D., & Meijer, A. (2009). Young people, the Internet, and political participation. *Information, Communication & Society*, 12(6), 879-898.
- Collin, P. (2008). The internet, youth participation policies, and the development of young people's political identities in Australia. *Journal of Youth Studies*, 11(5), 527-542.
- Compeau, D., & Higgins, C. (1995). Application of Social Cognitive Theory to Training for Computer Skills. *Information Systems Research*, 6(2), 118-143.

- Compeau, D., Higgins, C., & Huff, S. (1999). Social cognitive theory and individual reactions to computing technology: A longitudinal study. *MIS Quarterly*, 23(2), 145-158.
- Correa, T. (2010). The participation divide among “online experts”: Experience, skills and psychological factors as predictors of college students’ web content creation. *Journal of Computer-Mediated Communication*, 16(1), 71-92.
- Culnan, M., & Armstrong, P. (1999). Information privacy concerns, procedural fairness, and impersonal trust: An empirical investigation. *Organization Science*, 10(1), 104–115.
- Davis, R. (1999). *The web of politics. The Internet’s impact on the American political system*. Oxford, UK: Oxford University Press.
- De Vreese, C. (2007). Digital renaissance: young consumer and citizen? *The Annals of the American Academy of Political and Social Science*, 611(1), 207-216.
- Di Gennaro, C., & Dutton, W. (2006). The Internet and the public: Online and offline political participation in the United Kingdom. *Parliamentary Affairs*, 59(2), 299-313.
- DiMaggio, P., Hargittai, E., Celeste, C., & Shafer, S. (2004). Digital inequality: From unequal access to differentiated use. In K. M. Neckerman (Ed.), *Social Inequality* (pp. 355-400). New York, NY: Russell Sage Foundation.
- Doney, P., & Cannon, J. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61(2), 35-51.
- Emmer, M., Wolling, J., & Vowe, G. (2012). Changing political communication in Germany: Findings from a longitudinal study on the influence of the internet on political information, discussion and the participation of citizens. *Communications - European Journal of Communication Research*, 37(3), 233-252.
- Eurobarometer. (2011). *Special Eurobarometer 359. Attitudes on data protection and electronic identity in the European Union*. Retrieved from http://ec.europa.eu/public_opinion/archives/ebs/ebs_359_en.pdf
- Foot, K., & Schneider, S. (2002). Online action in campaign 2000: An exploratory analysis of the U.S. political web sphere. *Journal of Broadcasting Electronic Media*, 46(2), 222-244.
- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gibson, R., & Cantijoch, M. (2013). Conceptualizing and measuring participation in the age of the Internet: Is online political engagement really different to offline? *The Journal of Politics*, 75(3), 701–716.
- Gibson, R., Lusoli, W., & Ward, S. (2005). Online participation in the UK: Testing a “contextualised” model of Internet effects. *The British Journal of Politics and International Relations*, 7(4), 561-583.
- Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals’ social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, 17(3), 319-336.
- Gil de Zúñiga, H., Veenstra, A., Vraga, E., & Shah, D. (2010). Digital Democracy: Reimagining Pathways to Political Participation. *Journal of Information Technology & Politics*, 7(1), 36-51.
- Hargittai, E. (2002). Second-level digital divide: Differences in people’s online skills. *First Monday*, 7(4).
- Hargittai, E. (2010). Digital na(t)ives? Variation in Internet skills and uses among members of the net generation. *Sociological Inquiry*, 80(1), 92-113.
- Hargittai, E., & Hinnant, A. (2008). Digital inequality: Differences in young adults’ use of the Internet. *Communication Research*, 35(5), 602-621.
- Hargittai, E., & Walejko, G. (2008). The participation divide: Content creation and sharing in the digital age. *Information Communication Society*, 11(2), 239-256.

- Hoffmann, C., Lutz, C., & Meckel, M. (2015). Content creation on the Internet: A social cognitive perspective on the participation divide. *Information, Communication & Society, 18*(6), 696-716.
- Hsieh, J., Rai, A., & Keil, M. (2011). Addressing digital inequality for the socioeconomically disadvantaged through government initiatives: Forms of capital that affect ICT utilization. *Information Systems Research, 22*(2), 233-253.
- Internet Live Stats (2017). Germany Internet Users. Retrieved from <http://www.internetlivestats.com/internet-users/germany/>
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31-36.
- Kaufhold, K., Valenzuela, S., & Gil De Zúñiga, H. (2010). Citizen journalism and democracy: How user-generated news use relates to political knowledge and participation. *Journalism and Mass Communication Quarterly, 87*(3-4), 515-529.
- Kim, Y., & Glassman, M. (2013). Beyond search and communication: Development and validation of the Internet Self-efficacy Scale (ISS). *Computers in Human Behavior, 29*(4), 1421-1429.
- Köcher, R., & Bruttel, O. (2011). *Social Media, IT & Society 2011 - 1*. Infosys-Studie. Retrieved from <http://www.infosys.com/german/newsroom/press-releases/documents/social-media-it-society2011.pdf>
- Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security, 64*, 122-134.
- Krueger, B. (2002) Assessing the potential of Internet political participation in the United States: A resource approach. *American Politics Research, 30*(5), 476-498.
- Kruikemeier, S., Van Noort, G., Vliegthart, R., & De Vreese, C. (2013). Unraveling the effects of active and passive forms of political Internet use: Does it affect citizens' political involvement? *New Media & Society, 16*(6), 903-920.
- Kwak, N., Poor, N., & Skoric, M. (2006). Honey, I shrunk the world! The relation between Internet use and international engagement. *Mass Communication and Society, 9*(2), 189-213.
- Livingstone, S., Bober, M., & Helsper, E. (2005). Active participation or just more information? *Information, Communication & Society, 8*(3), 287-314.
- Lutz, C., Hoffmann, C., & Meckel, M. (2014). Beyond just politics: A systematic literature review of online participation. *First Monday, 19*(7).
- Macafee, T., & De Simone, J. (2012). Killing the bill online? Pathways to young people's protest engagement via social media. *Cyberpsychology, Behavior and Social Networking, 15*(11), 579-84.
- Malhotra, N., Kim, S., & Agarwal, J. (2004). Internet Users' Information Privacy Concerns (IUIPC): The Construct, the Scale, and a Causal Model. *Information Systems Research, 15*(4), 336-355.
- Margolis, M., & Resnick, D. (2000). *Politics as usual: The cyberspace "revolution"*. Thousand Oaks, CA: Sage Publications.
- Moy, P., Manosevitch, E., Stamm, K., & Dunsmore, K. (2005). Linking dimensions of Internet use and civic engagement. *Journalism & Mass Communication Quarterly, 82*(3), 571-586.
- Nabi, Z. (2014). ~~Resistance~~ censorship is futile. *First Monday, 19*(11). Retrieved from <http://firstmonday.org/ojs/index.php/fm/article/view/5525/4155>
- Norris, P. (2001). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge, UK: Cambridge University Press.
- Oser, J., Hooghe, M., & Marien, S. (2013). Is online participation distinct from offline participation? A latent class analysis of participation types and their stratification. *Political Research Quarterly, 66*(1), 91-101.
- Palfrey, J., & Gasser, U. (2008). *Born digital – Understanding the first Generation of digital natives*. New York, NY: Basic Books.

- Pasek, J., More, E., & Romer, D. (2009). Realizing the social Internet? Online social networking meets offline civic engagement. *Journal of Information Technology Politics*, 6(3), 197-215.
- Putnam, R. (1995). *Bowling Alone: The Collapse and Revival of American Community*. New York, NY: Simon & Schuster.
- Scheufele, D. A., & Eveland, W. P. (2001). Perceptions of 'public opinion' and 'public' opinion expression. *International Journal of Public Opinion Research*, 13(1), 25-44.
- Schradie, J. (2011). The digital production gap: The digital divide and Web 2.0 collide. *Poetics*, 39(2), 145-168.
- Schradie, J. (2013). The digital production gap in Great Britain. *Information, Communication & Society*, 16(6), 989-998.
- Smith, A. (2013). Civic Engagement in the Digital Age. *Pew Internet American Life Project*. Retrieved from <http://pewinternet.org/Reports/2013/Civic-Engagement.aspx>
- Smith, H., Dinev, T., & Xu, H. (2011). Information privacy research: An interdisciplinary review. *MIS Quarterly*, 35(4), 989-1015.
- Smith, A., Schlozman, K., Verba, S., & Brady, H. (2009). The Internet and Civic Engagement. *Pew Internet American Life Project*. Retrieved from <http://www.pewinternet.org/Reports/2009/15--The-Internet-and-Civic-Engagement.aspx>
- Stanyer, J. (2005). The British public and political attitude expression: the emergence of a self-expressive political culture? *Contemporary Politics*, 11(1), 19-32.
- Statista. (2019). *Forecast of Facebook user numbers in Germany from 2015 to 2022 (in million users)*. Retrieved from <https://www.statista.com/statistics/568790/forecast-of-facebook-user-numbers-in-germany/>
- Stern, M., & Dillman, D. (2006). Community participation, social ties, and use of the Internet. *City & Community*, 5(4), 409-425.
- Theocharis, Y. (2011). Young people, political participation and online postmaterialism in Greece. *New Media & Society*, 13(2), 203-223.
- Theocharis, Y. (2015). The Conceptualization of digitally networked participation. *Social Media + Society*, July-December, 1-14. doi: 10.1177/2056305115610140
- Theocharis, Y., & van Deth, J. W. (2018). *Political participation in a changing world: Conceptual and empirical challenges in the study of citizen engagement*. New York: Routledge.
- Van Deursen, A., & Van Dijk, J. (2010). Internet skills and the digital divide. *New Media & Society*, 13(6), 893-911.
- Van Dijk, J. (2006). Digital divide research, achievements and shortcomings. *Poetics*, 34(4-5), 221-235.
- Velasquez, A., & LaRose, R. (2014). Youth collective activism through social media: The role of collective efficacy? *New Media & Society*, 17(6), 899-918. 1
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273-315.
- Venkatesh, V., & Morris, M. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS Quarterly*, 24(1), 115-139.
- Venkatesh, V., Morris, M., Davis, G., & Davis, F. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- Verba, S., Schlozman, K., & Brady, H. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA.: Harvard University Press.

- Vitak, J., Zube, P., Smock, A., Carr, C., Ellison, N., & Lampe, C. (2011). It's complicated: Facebook users' political participation in the 2008 election. *Cyberpsychology, Behavior and Social Networking, 14*(3), 107-114.
- Wang, S. (2007). Political use of the Internet, political attitudes and political participation. *Asian Journal of Communication, 17*(4), 381-395.
- Wattal, S., Schuff, D., Mandviwalla, M., & Williams, C. (2010). Web 2.0 and politics: The 2008 US presidential election and an e-politics research agenda. *MIS Quarterly, 34*(4), 669-688.
- Wei, K.-K., Teo, H.-H., Chan, H., & Tan, B. (2011). Conceptualizing and testing a social cognitive model of the digital divide. *Information Systems Research, 22*(1), 170-187.
- Wellman, B., Quan-Haase, A., Witte, J., & Hampton, K. (2001). Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist, 45*(3), 436-455.
- Woodly, D. (2007). New competencies in democratic communication? Blogs, agenda setting and political participation. *Public Choice, 134*(1-2), 109-123.
- Zerback, T., & Fawzi, N. (2017). Can online exemplars trigger a spiral of silence? Examining the effects of exemplar opinions on perceptions of public opinion and speaking out. *New Media & Society, 19*(7), 103
- Zillien, N., & Hargittai, E. (2009). Digital Distinction: Status-Specific Types of Internet Usage. *Social Science Quarterly, 90*, 274-291.

Appendix A

Questionnaire

Construct	Item	Wording (Scale) ^a
Social Media Self-efficacy	SE1 SE2 SE3	How do you assess your skills when using the Internet? Please Indicate your agreement to the following statements. <i>I am able to publish information on a blog or on Twitter.</i> <i>I am able to publish a video on the Internet (e.g. on YouTube).</i> <i>I am able to create or add to an article on Wikipedia.</i>
Privacy Concerns	PC1 PC2 PC3	Please indicate your agreement to the following statements. <i>All things considered, the Internet would cause serious privacy problems.</i> <i>Compared to others, I am more sensitive about the way online companies handle my personal information.</i> <i>To me, it is the most important thing to keep my privacy intact from online companies.</i>
Online Political Participation	PPon1 PPon2 PPon3 PPon4	How frequently do you use the Internet for the following political activities? <i>I like and share political content on the Internet.</i> <i>I publish commentaries about political topics on the Internet.</i> <i>I try to persuade others online to become politically active.</i> <i>I actively participate in a political online group or online community</i>
Offline Political Participation	PPoff1 PPoff2 PPoff3 PPoff4	How often do you perform the following activities? <i>Donating money to a political party or group</i> <i>Working for a political party or group</i> <i>Attending meetings of a party or a candidate</i> <i>Attending political rallies</i>

^aLikert Scale for Online and Offline Political Participation: 1 – never, 2 – rarely, 3 – sometimes, 4 – often, 5 – very often; Likert Scale for Privacy Concerns and Online Self-Efficacy: 1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – strongly agree.

Appendix B

Measurement Model of the Latent Constructs

Construct	Item	Std. loading	t-values	R ²	α	C.R.	AVE
Social Media Self-efficacy	SE1	0.854	63.301***	0.73	0.88	0.88	0.71
	SE2	0.895	83.525***	0.801			
	SE3	0.774	49.444***	0.599			
Privacy Concerns	PC1	0.519	18.979***	0.269	0.72	0.72 3	0.47 2
	PC2	0.75	24.097***	0.563			
	PC3	0.765	25.833***	0.585			
Political Participation Online	PPon1	0.778	49.667***	0.605	0.91 4	0.91 6	0.73 1
	PPon2	0.909	82.228***	0.826			
	PPon3	0.888	72.634***	0.788			
	PPon4	0.84	50.887***	0.705			
Political Participation Offline	PPoff1	0.8	39.876***	0.64	0.90 6	0.89 9	0.69 0
	PPoff2	0.865	45.477***	0.748			
	PPoff3	0.849	42.291***	0.72			
	PPoff4	0.808	36.345***	0.653			
Criterion		≥ 0.5	min*	≥ 0.4	≥ 0.7	≥ 0.6	≥ 0.5

*** p < 0.001

Appendix C

Fornell Larcker Criteria of the Latent Constructs (Discriminant Validity)

	Nr. of items	α	C.R.	AVE	SE	PC	PPon
SE	3	0.88	0.88	0.71			
PC	3	0.72	0.72	0.47	0.03		
PPon	4	0.91	0.92	0.73	0.15	0.00	
PPoff	4	0.91	0.90	0.69	0.02	0.00	0.48