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Empfohlene Zitierung / Suggested Citation:

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HOW PRIVACY CONCERNS AND SOCIAL MEDIA PLATFORM USE AFFECT ONLINE POLITICAL PARTICIPATION IN GERMANY

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ABSTRACT
Digital inequalities research has investigated who engages in online political participation, finding gaps along socioeconomic variables such as gender and education. Recent research has also highlighted how online platforms may facilitate political participation. Especially for multi-purpose platforms such as Facebook, where users are supposed to use their real names, issues of adequate self-presentation arise. The diversity of multiple audiences engenders privacy concerns, particularly when controversial political issues are discussed. We add to existing research on digital inequalities by focusing on privacy concerns as a critical construct. Using a survey of German Internet users, we test the effect of privacy concerns on online political participation. Unexpectedly, privacy concerns increase political participation. As privacy concerns are spread evenly throughout the population, they contribute little to the socioeconomic stratification of online political participation. Social media use, however, exerts a strong positive effect on political participation, and differs significantly among socioeconomic groups.

KEYWORDS
Digital Inequality; Privacy; Survey; Social Media; Social Network Sites
1 INTRODUCTION AND LITERATURE REVIEW

New media can foster political participation through different mechanisms, for example by offering low-threshold forms of engagement. Expressing one’s opinion online can be as easy as clicking a like button on Facebook or retweeting someone else’s tweet. Signing e-petitions, posting videos, and commenting on online news are other activities that require limited effort for political expression and participation. Social media, in particular, have facilitated political online engagement due to their affordances (Vitak and Kim, 2014). Consequently, previous research has found that social media use is positively related to political participation (Boulianne, 2015).

Yet in Western nations such as the United States, the United Kingdom or Germany, online political participation is still a minority phenomenon (Blank, 2013; Emmer et al., 2012; Smith, 2013). Just like in the offline world, few citizens show high levels of political engagement in the digital sphere (Kocher and Bruttel, 2011). In addition, online political participation is not evenly distributed throughout the population. Male and educated citizens tend to be most active in that regard (Lutz et al., 2014). Accordingly, some authors have pointed out a divide in political participation on the Internet and in social media (Bode, 2017; Vochocova et al., 2016).

Given the unequal distribution of political participation in the offline world, a critical question today is whether the sociodemographic stratification of online political participation merely replicates offline dynamics or whether online media provide specific obstacles to political participation that shape the online divide. One such obstacle of interest are privacy concerns. While privacy concerns, generally, can be seen as a deterrent from online engagement (Smith et al., 2011), they may pose specific challenges to online political participation. Political participation has variously been described as performative, as it is geared towards others and exposes the participant to the scrutiny of others (Scheufele and Eveland, 2001). From publicly expressing a political opinion, reaching out and trying to persuade others, to displaying a political position in the form of t-shirts, stickers or memes – by participating politically, citizens share personal data and information (Endersby and Towle, 1996; Kann et al., 2007).

The slacktivism hypothesis (Morozov, 2009) holds that this performative dimension fuels online political participation, as users engage in impression management and self-staging. In fact, political posturing on the Internet is suspected to aggravate confrontational or uncivil political discourses (Dahlgren, 2005; Papacharissi, 2004). At the same time, recent studies have shown that less expressive and outspoken individuals might instead silence their political opinions and avoid speaking out in online contexts to avoid alienating other users, creating a digital “spiral of silence” (Hampton et al., 2014; Kim et al., 2014; Zerback and Fawzi, 2016). As a recent example, Bode (2017) finds that online outspokenness contributes to the online participation divide, with men more eager to engage in visible behavior: “The greater the visibility of the behaviors, the greater the gender gap that emerges” (p. 587).

All of these findings confirm that online media do indeed constitute an environment providing specific incentives, but also challenges or obstacles to political participation. In particular, the opportunity to easily share information online, while rendering political participation more convenient, necessitates a careful consideration of the associated risks by users. To date, privacy and digital inequality stand apart as two relatively separate streams in Internet and social media research (Wilson et al., 2012; Zhang and Leung, 2015). In this contribution, we combine insights on online political participation and online privacy to argue that privacy concerns
may mitigate online political participation, possibly contributing to a divide in online political participation. We analyze the role of privacy concerns as a barrier to online political participation based on a survey of 1008 individuals in Germany. Exploring the role of privacy concerns in online political participation sheds light on which citizens might be more likely to benefit from the participatory affordances of new media. In short, our study will address the following research question: How do privacy concerns affect users’ online political participation?

2 METHODS

We use data collected through an online survey in Germany to answer the research question. The survey was in the field throughout November and early December 2017. A certified market research institute provided access to the participants. 1008 respondents completed the survey. However, 24 of them were minors and subsequently excluded, leaving us with a sample of 984 respondents. 49 percent of these respondents are male and 51 are female. The average age was 51 years (SD = 17.5 years). Educational levels varied, with 1 percent reporting no formal degree, 14 percent a lower secondary degree (Volks- und Hauptschule in Germany), 36 percent an intermediary secondary degree (Mittlere Reife/Realschule in Germany), 13 percent an upper secondary degree (Fachhochschulreife), with 35 percent being in the highest category (Allgemeine Hochschulreife). About 1 percent reported other degrees. Compared to the German population, the sample is slightly skewed towards older and more educated individuals.

The questionnaire first queried participants on their sociodemographic data. It then included eight items on their online political participation, asking respondents about their frequency of participatory activities (e.g., Signing a petition on the Internet; Engagement in a political online group). These measures were translated into German from existing studies on online political participation (Calenda and Meijer, 2009; Hoffmann et al., 2015). Principal component analysis showed that all items loaded neatly on one factor. Cronbach’s α was high, with 0.94, indicating high internal consistency.

Privacy concerns were measured with four items. This scale was slightly adapted from Malhotra and colleagues (2004) and had sufficient reliability, with a Cronbach’s Alpha α of 0.77. Respondents showed moderate to high privacy concerns, with an arithmetic mean of 3.32 across all items (SD = 0.97).

We included respondents’ political orientation on a left-right scale as a control variable. The scale ranged from 1-very left to 10-very right, with an arithmetic mean of 5.11 (SD = 1.71).

Internet use frequency was measured with one item, querying respondents to report how often they use the Internet on a 5-point scale. The answer options were 1-all the time, 2-several times a day, 3-once a day, 4-once per week, 5-less often. Thus, low values indicate high Internet use frequency. The arithmetic mean was 1.95 (SD = 0.64), showing that the respondents use the Internet often.

Internet skills were measured based on Hargittai’s (2009) scale, which queries respondents for their knowledge of Internet and computer terms and has been shown to capture actual skills well. Respondents had to indicate their level of understanding of these terms using a 5-point scale that ranged from 1-no understanding to 5-full understanding. To keep the survey reasonably short, we selected seven items with varying levels of technicality out of the original 30 item inventory, including one bogus item. We bundled six of the seven items, excluding the bogus item, through a principal component analysis. All six remaining items loaded neatly on one factor and revealed high internal consistency (Cronbach’s α = 0.90).

Social media use frequency was assessed for five major platforms: Facebook, Twitter,
YouTube, Instagram, and Snapchat. Respondents had to indicate on a 5-point frequency scale how often they used each platform, including the categories 1-never, 2-less frequently, 3-weekly, 4-daily, 5-several times a day. Facebook emerged clearly as the most frequently used platform, with an arithmetic mean of 2.97 (SD = 1.64). YouTube was the second most used platform, with an arithmetic mean of 2.67 (SD = 1.32). The remaining platforms had low average use, with arithmetic means of 1.58 for Twitter (SD = 1.13), 1.78 for Instagram (SD = 1.35), and 1.41 for Snapchat (SD = 1.06).

We relied on linear regression analysis to answer the research question, using Stata (v.14) statistical software and robust standard errors due to the skewed dependent variable. We also checked for multicollinearity but did not find variance inflation factors exceeding 5, thus ruling out severe multicollinearity.

### 3 RESULTS

Before we turn to the results of the regression analysis, we report demographic differences in the key variables of privacy concerns and online political participation.

As shown in Table 1, demographic characteristics do not differentiate privacy concerns but there are significant differences in online political participation between men and women, and between users of different education and age levels. Men are more politically engaged than women and younger users are more engaged than older users. By contrast, the education differences are more complex. Generally, online political participation seems to increase slightly with education but respondents with no formal education report comparatively high values. However, since this group is small and includes only 16 respondents, the arithmetic mean should be interpreted with caution, as it might have been affected by outliers. Overall, the descriptive results indicate that among German Internet users, there are demographic divides in online political participation but not in privacy concerns.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Privacy Concerns</th>
<th>Online Political Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3.32 (0.72)</td>
<td>1.38*** (0.67)</td>
</tr>
<tr>
<td>Male</td>
<td>3.31 (0.75)</td>
<td>1.58*** (0.84)</td>
</tr>
<tr>
<td>Total</td>
<td>3.32 (0.74)</td>
<td>1.48 (0.77)</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>2.64 (1.14)</td>
<td>1.58** (0.88)</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>3.36 (0.73)</td>
<td>1.31** (0.60)</td>
</tr>
<tr>
<td>Intermediary secondary</td>
<td>3.30 (0.72)</td>
<td>1.42** (0.72)</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>3.43 (0.78)</td>
<td>1.50** (0.80)</td>
</tr>
<tr>
<td>University ready and higher</td>
<td>3.30 (0.71)</td>
<td>1.60** (0.84)</td>
</tr>
<tr>
<td>Other</td>
<td>3.33 (0.81)</td>
<td>1.43** (0.70)</td>
</tr>
<tr>
<td>Age (Correlation)</td>
<td>0.03</td>
<td>-0.28***</td>
</tr>
<tr>
<td>Income (Correlation)</td>
<td>0.01</td>
<td>0.09**</td>
</tr>
</tbody>
</table>

Table Note: Arithmetic means reported; 1-5 Likert scales; Standard deviation in brackets; *** p < 0.001; ** p < 0.01; * p < 0.05; a two-sample t-test for gender and a one-way ANOVA for education were conducted to test significance.

Table 1. Demographic Differences in Privacy Concerns and Online Political Participation.

Table 2 (last page) shows the results of a stepwise linear regression analysis. The columns of model 1 include only the control variables, in model 2, we then introduce privacy concerns as the central variable of interest. Comparing tables 1 and model 1 in table 2, we see that education and age are no longer significant predictors of online political participation when we control for Internet use and social media use, in particular. Facebook, Twitter, YouTube, and Snapchat use are positively related to online political participation. The only social media platform that is not significant is Instagram. However, significant gender effects...
remain in the multivariate model, but only at the 5 percent significance level. Turning to model 2, privacy concerns have a positive and significant but weak effect on online political participation. Thus, users with more privacy concerns will engage more, and not less, in political activities on the Internet, compared with users who report low levels of concern. Of the demographic predictors, only gender has a significant effect, at similar magnitude as in model 1. Men engage more frequently in online political participation than women. Again, we did not detect any further socioeconomic effects. Sociodemographic effects also do not appear to be moderated by privacy concerns, which is to be expected given the descriptive data presented in Table 1. Political attitudes and Internet use frequency did not significantly influence the dependent variable, and neither did online skills. Finally, five out of six social media platforms exert a significant effect on online political participation — all platforms considered except for Instagram. In all cases, the effects were positive, indicating that heightened social media use will strengthen online political participation.

4 DISCUSSION AND CONCLUSION

Based on an empirical analysis of German Internet users, we can draw three main conclusions. First, privacy concerns appear evenly distributed throughout the population, as we did not identify a sociodemographic stratification of general privacy concerns. Second, social media use has a significant positive relationship with online political participation. We find that, overall, male, younger and more educated Internet users are more politically engaged than their female, older and less educated counterparts. However, these differences are largely mediated through social media use. Controlling for social media use, only a significant gender divide remains, with male users participating more than female ones. Our study confirms previous findings from studies in the US (Best and Krueger, 2011) and in Germany (Hoffmann et al., 2015) that have similarly found positive associations between privacy concerns and political engagement. Despite political participation — particularly in social media — being associated with the disclosure of personal information, privacy concerns do not deter from political engagement, independent of age, gender or education. Several explanations could account for this positive effect. First, political interest or political milieu could drive both privacy concerns and online political participation. Politically interested users and those in a social milieu that is conducive to discussing political topics may be expected to be more outspoken online in political terms (Lutz, 2016), while also being relatively aware of privacy risks. Privacy might even be a topic that is conceived in political terms, particularly in a country like Germany, with a specific history of government surveillance. Privacy concerns might also be secondary to a desire for political expression, in the vein of the privacy paradox. Similarly to situations of general self-disclosure on the Internet, the perceived benefits of sharing political information and opinions might override the concerns (Dinev and Hart, 2006). We found that in Germany, a wealthy Western democracy, demographic and socioeconomic differences in online political participation are not particularly pronounced. Besides gender, none of the variables considered had a significant effect on the outcome variable in the regression models. Thus, online political participation seems to be less stratified than other online activities such as social and entertainment production (Blank, 2013; Hoffmann et al., 2015). The gender effect in our study is in line with other studies on online engagement (Bode, 2017; Lutz et al., 2014; Vochocova et al., 2016), showing
that men participate more actively online in political terms than women. Given that, at least in English-speaking countries (Greenwood, Perrin, and Duggan, 2016; Blank and Lutz, 2017), women tend to be more active on social media than men, this gender divide does merit further inquiry.

Interestingly, we identified significant age and education differences in online political participation before controlling for Internet and social media use. The results of the regression analysis indicate that they might be caused by uneven Internet and social media use patterns (Blank and Lutz, 2017; Hargittai, 2015). As shown in studies on online content creation more generally, young users tend to engage more actively in participatory Internet activities across different online contexts, compared with older users (Blank, 2013; Hargittai and Walejko, 2008; Hoffmann et al., 2015; Schradie, 2011). The disappearance of the education effect after controlling for Internet and social media use indicates that educational stratification seems to be stronger for social media use in the first place than for online political engagement.

Finally, the strong effect of the frequency of using different social media platforms shows how online political participation is strongly connected to social media. It is plausible that many of the activities captured by the dependent variable in the regression model take place on social media. However, somewhat surprisingly, some platforms not primarily conceived as contexts for political action, such as YouTube and Snapchat, had a positive effect on online political participation, too. For more entertainment-oriented platforms such as YouTube and Snapchat, users might be exposed to political content, even though they are not directly searching for it. Such accidental or incidental exposure effects have been increasingly discussed in literature on political communication (Kim et al., 2013; Tang and Lee, 2013; Valeriani and Vaccari, 2016). Future research might study specific platforms, such as YouTube or Snapchat, in terms of how they might enable political online participation indirectly, through accidental exposure.

In addition to the limitations already mentioned, our study has several shortcomings. First, we conducted a cross-sectional survey. Future research should use longitudinal surveys to investigate changes over time or experimental designs to identify clear causal effects how privacy concerns might (or might not) affect online political participation. Second, we only collected data in one country. Future research should use comparative research designs to isolate the role the political and cultural system plays in shaping online political participation. Third, future studies should take further explanatory variables, such as users’ social capital (both online and offline) and their engagement in traditional politics, into consideration.

5 REFERENCES


Table 2. Multiple Regression Model Predicting Online Political Participation.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficient</td>
<td>β</td>
</tr>
<tr>
<td>Age</td>
<td>-0.00 (0.00)</td>
<td>-0.00</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.15** (0.06)</td>
<td>-0.07**</td>
</tr>
<tr>
<td>Income</td>
<td>0.01 (0.01)</td>
<td>0.01</td>
</tr>
<tr>
<td>Education</td>
<td>-0.02 (0.03)</td>
<td>-0.02</td>
</tr>
<tr>
<td>Political Attitude</td>
<td>0.01 (0.02)</td>
<td>0.02</td>
</tr>
<tr>
<td>Internet Use Frequency</td>
<td>-0.05 (0.04)</td>
<td>-0.03</td>
</tr>
<tr>
<td>Facebook</td>
<td>0.10*** (0.02)</td>
<td>0.16***</td>
</tr>
<tr>
<td>Twitter</td>
<td>0.23*** (0.04)</td>
<td>0.25***</td>
</tr>
<tr>
<td>Youtube</td>
<td>0.05* (0.03)</td>
<td>0.07*</td>
</tr>
<tr>
<td>Instagram</td>
<td>0.01 (0.04)</td>
<td>0.01</td>
</tr>
<tr>
<td>Snapchat</td>
<td>0.35*** (0.06)</td>
<td>0.32***</td>
</tr>
<tr>
<td>Skills</td>
<td>0.01 (0.03)</td>
<td>0.01</td>
</tr>
<tr>
<td>Privacy Concerns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.00 (0.26)</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.40</td>
<td>0.41</td>
</tr>
<tr>
<td>N</td>
<td>931</td>
<td>913</td>
</tr>
</tbody>
</table>