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[From seeing the writing on the wall, to getting together for a bowl: Direct and compensating effects of Facebook use on offline associational membership.](#)

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# From Seeing the Writing on the Wall, to Getting Together for a Bowl: Direct and Compensating Effects of Facebook use on Offline Associa- tional Membership

Abstract:

*Research concerned with a decline of associational involvement has examined whether the use of social networking sites, such as Facebook, may reinvigorate or crowd out involvement in civil society. Yet, previous studies have not systematically investigated possible effects of Facebook use on associational membership. We posit that the effects of Facebook use are twofold: Facebook stimulates associational membership directly through its inherent networking features, and indirectly by compensating for a lack of traditional mobilising factors, such as social trust and internal efficacy. Relying on a probabilistic sample of German participants aged 18-49, our findings show that Facebook users are more likely to be members of voluntary associations and that Facebook use increases the likelihood of associational membership even for individuals with low levels of social trust and internal efficacy. Instead of crowding out offline associational involvement, Facebook use stimulates membership in voluntary associations, thus contributing to the vitality of civil society.*

Membership in voluntary associations, one of the most basic forms of involvement in civil society, has long been heralded as central to a strong community and a healthy democracy (de Tocqueville 2000; Putnam 2000). Classic and contemporary democratic theory (Rousseau 1994; Mill 2008; Fung 2003) has posed that participation in civil society can provide individuals with the necessary competencies for participation in public life, and research has shown that community involvement can produce norms and civic skills that are subsequently crucial for democratic engagement (McFarland & Thomas 2006; Putnam 2000; Howard & Gilbert 2008).

In the last two decades, two important developments have deeply affected both thinking and research about the state of associational involvement as a social practice, and its consequences for a healthy democracy. The first has been the diagnosis of a decline in associational involvement in America - leading literally to the “collapse of American community” (Putnam 2000). The second has been the rise of the internet, and more recently social networking sites (SNS) - such as Facebook; widely adopted social technologies that have been found to encourage social interaction, participation and group formation online, and assist in the maintenance of existing social ties (Valenzuela et al. 2009; Gil de Zúñiga 2012; Xenos & Moy 2007).

In light of Putnam’s alarming calls not only about the decline in associational membership but also about the role TV and new media like the internet have played in it (cf. Putnam 2000, chap. 13), a central endeavor in the literature has been to better understand the impact of internet use – and more recently the interactive Web 2.0-based SNS – on the vitality of community life (Nie & Erbring 2000; Jensen et al. 2007; Kittilson & Dalton 2011; Gil de Zúñiga 2012). The main question of interest here is whether online activities crowd-out offline community involvement, thus leading to a (further) devitalisation of civil society, or rather strengthen it by providing additional means for mobilisation.

Early studies on the effects of the internet on social interactions confirmed Putnam's "time-displacement" hypothesis according to which long preoccupation with media leads to less social contact (Kraut et al. 1998; Nie & Erbring 2000). In contrast, succeeding studies have discovered mostly positive effects of online activities in fostering personal interactions and social and political participation (Shah et al. 2002; Johnson & Kaye 2003). In fact, much of recent research has focused on the potential of SNS (and more specifically Facebook) for civic participation (Xenos et al. 2014) and social capital generation (Ellison et al. 2007; Park et al. 2009; Valenzuela et al. 2009; Gil De Zuniga et al. 2009; Ellison et al. 2014).

These studies start from the assumption that inherent features of Facebook, such as the capability to meet others online, discuss with them, share information, join online groups and events of common interest (or create your own for others to join), are essentially interactive social networking activities that increase one's weak ties (Granovetter 1973) and function as (additional) mobilising agencies for further involvement. It is thus likely that interacting with others and groups while using Facebook has the potential to encourage membership in offline group settings as well. Recent research has shown that some of Facebook's embedded functions that facilitate information distribution – such as the News Feed or the Wall – can indeed act as mobilisers for civic and political engagement (Enjolras et al. 2013; Tang & Lee 2013; Bond et al. 2012).

In this study, we therefore ask whether Facebook use increases individuals' likelihood to be members of voluntary associations. In addition, we investigate whether Facebook's mobilising features will benefit particularly those people lacking the "traditional" mobilising agencies usually found to encourage offline associational membership, such as social trust and political efficacy.

By investigating the relationship between Facebook use and associational membership, the present study seeks to overcome three fundamental shortcomings of an otherwise enlightening research domain. *First*, almost no studies have systematically looked at the direct effects Facebook use exerts on offline associational membership, thus omitting a potentially beneficial mobilising factor for associational involvement that may assist the reversal of the worrisome trends observed by Putnam (2000). Membership has generally been used as an independent variable (often operationalized as *online* Facebook group membership) – if at all – in studies seeking Facebook’s effects on political or civic participation (Conroy et al. 2012), rather than as a dependent variable. *Second*, although the literature has found generally positive effects between Facebook use and individual-level production of social capital - leading to optimism about its socialisation benefits, there is so far little evidence that Facebook can compensate for the absence of more traditional mobilising factors of associational involvement such as social trust and political efficacy (Verba et al. 1995; Putnam 2000). If Facebook indeed exhibits such a compensating capacity, then it can occupy an important mobilising role for engagement in democratic politics in general. *Third*, although a good number of studies have searched for Facebook’s effects on social capital and civic engagement and have generally found positive links, they have been mainly conducted using US college student samples (Vitak et al. 2011; Conroy et al. 2012; Ellison et al. 2007; Valenzuela et al. 2009). However, as Gil de Zúñiga notes (2012, p. 320), Facebook use has extended considerably within the general population. Therefore, we expand and elaborate on previous limited research based on college student samples by investigating data from a random sample of adults aged 18-49 in Germany’s state of *Baden-Württemberg*.

The remainder is structured as follows; we first review the literature on the importance of associational involvement for a vibrant civil society and a healthy democracy and discuss the role

of social trust and internal political efficacy as “traditional” mobilising factors for associational membership. Subsequently, we elaborate on the direct effects Facebook use exerts on associational membership and present additional arguments about its compensating capacities. Having outlined our data and methodological approach, we finally present the results of our study and provide a discussion of the implications of our findings.

### **Membership in voluntary associations, social trust and internal political efficacy**

Alexis de Tocqueville’s work has been pivotal in studying the importance of a vibrant associational life for a healthy democracy. As he himself famously put it, in "democratic countries the science of association is the mother of science; the progress of all the rest depends upon the progress it has made" (de Tocqueville, 2000 [1840], p. 118). Ever since Tocqueville, claims about the pivotal role of associations in making democracy work have been echoed in numerous studies and investigations (see, inter alia, Almond & Verba, 1963; Maloney & Roßteutscher, 2007; Maloney & van Deth, 2010; Putnam, 1994, 2000). Membership in voluntary associations is supposed to contribute to the cultivation of democratic habits and civic skills (Warren 2001, pp.70–77) and enables people to discuss and formulate opinions about social and political issues, feel that their actions can have a meaningful impact, and serves as vehicle through which people can voice their views to local political authorities (Jensen et al. 2007, p.40).

In light of voluntary associations’ attributed ability to function as ‘schools of democracy’, considerable research has been devoted to understanding which factors can account for citizens’ membership in voluntary associations. In this study, we concentrate on social trust and internal political efficacy as two main and long-established antecedents of membership in voluntary asso-

ciations identified in previous research (Allen & Rushton 1983; Roßteutscher 2008, pp.210–1; for a review see Smith 1994).

Still, it has to be noted that much of the broader literature studying social capital and associational involvement argues (or assumes) that both social trust (Paxton 2007; Stolle & Rochon 1998) and internal political efficacy (Almond & Verba 1963, p. 265) are consequences rather than antecedents of membership in voluntary associations (Parry et al. 1992; Putnam 1994; Putnam 2000). However, whereas especially Robert Putnam as the main proponent of social capital theory has argued that “causation runs mainly from joining to trusting” (Putnam 1995, p.666), others have posited “that people join voluntary organizations because they trust others, rather than the other way round” (Newton 1999, p.17). So far, empirical research has not provided any definite answer concerning the causal direction between social trust and political efficacy, on the one hand, and membership in voluntary associations, on the other. Still, existing research usually fails to provide evidence for Putnam’s thesis and rather hints at the presence of self-selection effects: it is first and foremost individuals who possess high levels of social trust and efficacy who disproportionately become members of voluntary associations; distrusters and less efficacious individuals usually refrain from membership in voluntary associations (Rothstein & Stolle 2008, p.277; Maloney & van Deth 2010, p.239).

Following these insights, it thus appears more likely that trusting and efficacious people tend to be members of voluntary associations in the first place, and less plausible “that people are trusting [or efficacious] because they have learned this attitude in their voluntary organizations, although membership may reinforce pre-existing levels of trust [and efficacy]” (Newton 2001, p.207).

Why should social trust and internal political efficacy increase one's likelihood of being a member in voluntary associations? Social trust encourages membership based on the individual's belief that one can successfully work with others to produce desired outcomes. As Roßteutscher (2008, p.210) argues,

*“Trust is a precondition of any kind of collective behaviour. Without trust, there simply is no civic engagement. [...] only when I am convinced that my associates will behave trustworthily, and that they will contribute to the common goal, [...] I will engage in collective action. I must also believe that they will not cheat me or leave me to do the work all alone. Without these preconditions I will not be prepared to join a collective endeavour.”*

Internal political efficacy, defined as individuals' subjective evaluations of their own potential to influence (political) processes (for the origins of the concept see Campbell et al. 1954, p.187; Balch 1974), encourages membership due to the individual's self-perception that their competence can initiate change or solve problems through involvement in collective endeavours. Furthermore, in light of previous research showing that task-specific efficacy, such as internal political efficacy, are closely related to a general sense of self-efficacy (Littvay et al. 2011; Seeman and Seeman 1983; Rapley 2001), we expect that possible effects of internal political efficacy are not limited to actions and behaviours within purely political contexts, but also extend to less politicised contexts given that internal political efficacy is supposed to reflect and entail components of a more general sense of efficacy as well. After all, without the subjective feeling that one's own actions can have a meaningful impact when it comes to bring about change or

solve collective action dilemmas, individuals will most likely refrain from membership in voluntary associations in the first place.

Accordingly, the first two hypotheses to be tested in the empirical part of our study can be formulated as follows:

*H1a: The higher a person's social trust, the more likely it is that this person will be a member of voluntary associations.*

*H1b: The higher a person's internal political efficacy, the more likely it is that this person will be a member of voluntary associations.*

### **Facebook's impact on associational membership**

Why would Facebook have an effect on associational involvement? Despite limited research on this particular question, extensive research on the socialising effects of Facebook and its impact on social capital provides strong grounds for suspecting that Facebook can have a direct effect on associational membership. Facebook has a number of embedded functions that, at least theoretically, make its use conducive to stimulating offline associational involvement.

*First*, and most relevant, Facebook has its own group creation/group joining function based on which people with common interests can meet online. Through this function one can identify with others online, form a sense of belonging and connect through discussion, collaborative effort and content exchange which may result in feeling connected to a community, and subsequently leading to offline engagement (Shirky 2008). Barack Obama's campaign for the 2008 presidency relied heavily on community-building through SNS, subsequently mobilising people to participate in the offline campaign-related meet-ups (Gibson 2009; Kreiss 2012). Furthermore,

it has been argued that individual social and political initiatives that were created on Facebook subsequently gained traction in the offline realm as well. Most famously, extensive protest involvement during the 2011 Egyptian revolution is said to have emanated from the “We are all Khaled Said” Facebook group (Tufekci & Wilson 2012).

*Second*, Facebook contributes to identity construction by enabling diverse channels for interpersonal feedback and peer acceptance (most prominently through “The Wall”) (Park et al. 2009; see also Valenzuela et al. 2009). As peer-acceptance in social networking sites is a strong predictor of life satisfaction (Valkenburg et al. 2006), this may lead - especially more introvert people - to gain confidence and join groups first online and subsequently offline.

*Third*, Facebook cannot only fulfil users’ informational needs by functioning as their preferred news platform (Bachmann & de Zuniga 2013; Gil de Zúñiga 2012). Through the “News Feed” function, it can expose them to mobilising information which arrives as a part of the diverse menu of information appearing routinely on the main Facebook page (Tang & Lee 2013), and even to group pressure by displaying recent social or political activities one’s friends have engaged in (Bond et al. 2012). The information obtained through Facebook’s news feed may encourage and stimulate Facebook users to get involved in the offline realm as well.

*Fourth*, Facebook can satisfy people’s entertainment and recreation needs, enabling them to join groups and events related to their personal interests and hobbies even beyond the mere online sphere (Ekstrom & Östman 2013; Author, 2014).

On top of these four theoretical considerations, previous research has laid the ground for investigating Facebook’s effect on associational membership. Facebook use has been found to facilitate new and maintain established face-to-face relationships among college students (Ellison et al. 2007; Valenzuela et al. 2009). Moreover, recent research shows that Facebook use fosters

collaborative and collective practices online (Boyd & Ellison 2007; Shirky 2008), especially among young people (Kahne et al. 2013; Ekstrom & Östman 2013).

All of the abovementioned aspects substantiate the argument that Facebook use has the potential to stimulate and mobilise for membership in offline voluntary associations. Following previous research on social capital which has pointed to the crucial distinction between leisure- and politically-oriented voluntary associations (Wollebaek & Selle 2003, p.72,84; Stolle & Rochon 1998), an important question raised here is whether both types of associations will benefit equally from Facebook's mobilising potential. The above discussion shows clearly that some activities on Facebook serve entertainment or recreational purposes, while others are activities with a societal or political scope. In light of this very diverse menu of possible activities on Facebook, ranging from purely leisure-oriented activities like online gaming to clearly political ones like discussing in the "We are all Khaled Said" Facebook group (Ghonim 2012), we contend that Facebook should have the potential to stimulate membership in both leisure- and politically-oriented voluntary associations alike. This proposition can be further substantiated by extant theoretical work arguing that the arrival of Web 2.0 platforms such as Facebook, have dramatically reduced engagement costs in high-threshold activities (Shirky 2008; Bimber et al. 2012). While in the offline realm the costs (in terms of required competencies and effort) associated with being a member of political associations are presumably much higher than for being a member in leisure groups,<sup>1</sup> being mobilised for membership in offline voluntary associations *via Facebook* is expected to substantially reduce engagement costs for any type of voluntary association alike (be it leisure- or politically-oriented). Therefore, we argue that Facebook use will have a uniform mobilising effect on associational membership irrespective of the concrete type of voluntary association.

*H2: Facebook users are more likely to be members of voluntary associations than non-users.*

### **Facebook's compensating role for the lack of social trust and internal efficacy**

If Facebook has a positive effect on associational membership, we are interested in further unpacking this effect by examining how Facebook use may be moderating the effects of social trust and internal political efficacy, two core antecedents of associational membership. We expect that the mobilising functions of Facebook, which may include acquaintance, discussion and collaboration with previously unknown, others, are more likely to benefit exactly those who lack more “traditional” mobilising factors such as social trust and feelings of internal political efficacy. Put differently, while people with relatively high levels of social trust and internal efficacy have a high propensity of being a member in voluntary associations by default, those who lack social trust and internal efficacy might compensate for this lack and get mobilized for membership in offline voluntary associations through Facebook use. Of course, one may imagine that Facebook use can complement rather than compensate for high levels of social trust and internal efficacy. Still, we envisage this as a less likely scenario for at least two reasons.

First, considering the generally low (average) levels of associational involvement as documented in previous research (cf. Almond & Verba 1963), it can reasonably be argued that people with relatively high levels of social trust and internal efficacy are by default closer to the rather low ceiling of associational involvement. Hence, in this case the potential *additional* contribution Facebook use could provide for mobilising people for associational membership, would be, at best, minimal.

Second, the mobilising features of Facebook can be thought of as functional equivalents for social trust and internal efficacy as traditional antecedents of associational membership. Facebook use can overcome traditional barriers of trust formation by creating a virtual environment where prerequisites of associational involvement, such as collaborative and collective practices or interpersonal feedback and peer acceptance, can exist in the absence of traditional social trust (Boyd & Ellison 2007; Park et al. 2009; Ellison et al. 2014). For example, Brundidge and Rice (2009) have shown that Facebook groups and profiles allow for the emergence of political discussions among people who disagree, particularly through the connection of two persons who have a 'friend' in common. What is more, within the online environment of Facebook, users might be willing and able to join online groups even if they lack a feeling of internal efficacy that would be required for joining offline voluntary associations<sup>2</sup>. Given that the necessary competencies for - as well as the costs and efforts of - using Facebook and joining Facebook groups are much lower than for offline associational involvement, even people lacking a sense of internal political efficacy might first become involved online, get exposed to the mobilizing features of Facebook, and subsequently become members of offline voluntary associations as well. Therefore, our third hypothesis states:

***H3:** Facebook use will moderate the effects of social trust and internal political efficacy on associational membership.*

***H3a:** The effect of social trust on associational membership will be stronger for Facebook non-users than Facebook users.*

***H3b:** The effect of internal political efficacy on associational membership will be stronger for Facebook non-users than Facebook users.*

In less technical terms, we thus expect that Facebook users with low levels of social trust and internal efficacy respectively, are more likely to be members of voluntary associations than Facebook non-users with equally low levels of trust and efficacy.

### **Facebook's features of influence**

If, as we hypothesize, Facebook use has an effect on associational membership – be it a direct or a compensating one – a more fine-grained analysis of the exact features through which Facebook exerts its mobilising effects would be insightful. Much of the recent literature has focused on two core mobilising features, namely *network embeddedness*, that is, expanding one's network of friends online (usually operationalised through the number of Facebook friends) – which has been shown to be positively linked with offline participation (Gil de Zuniga & Valenzuela 2010), and users' *exposure to mobilizing information* (e.g. about elections and protest events) distributed by issue groups or Facebook peers (Tufekci & Wilson 2012; Enjolras et al. 2013; Tang & Lee 2013; Bond et al. 2012).

Hence, we expect a difference in the propensity of being a member of voluntary associations between Facebook users with different levels of network embeddedness and exposure to mobilizing information. Since those users with relatively less friends and less exposure to information are (conceptually) closer to the profile of Facebook non-users, we expect them to be less likely to be members of voluntary associations than Facebook users with comparatively higher levels of network embeddedness and exposure to mobilising information. Accordingly, we are able to assess Facebook's mobilising potential in more detail by testing the following hypothesis:

*H4a: The higher the number of Facebook friends, the more likely it is that a Facebook user will be a member of voluntary associations.*

*H4b: The greater the exposure to mobilising information on Facebook, the more likely it is that a Facebook user will be a member of voluntary associations.*

### **Data and measurement**

The data used in this study comes from a probabilistic sample of adults aged 18-49 in Germany's state of *Baden-Württemberg*. The final response rate was 16%<sup>3</sup>, which is acceptable considering the younger target groups (as a comparison, the response rate for the phone survey of the German general population in the European Election Studies 2009 is around 20%). Participants were surveyed in October and November of 2011. This was seven months after the *Baden-Württemberg* state election and long after the vibrant mobilisations around the infamous Stuttgart 21 project - which drew thousands of protesters to the streets of Stuttgart - and therefore a relatively quiet period, politically speaking. Although the data were initially not collected for the purpose of the present study, they contain an extensive battery of items measuring associational membership, social trust, internal political efficacy and (various features of) Facebook use, making it a unique resource for testing the empirical appropriateness of our hypotheses. Still, we need to caution the reader that due to an oversample of non-Facebook users we cannot claim the data to be representative for the adult population aged 18 to 49 in the state of *Baden-Württemberg*<sup>4</sup>.

Nevertheless, the dataset at hand is based on a probabilistic sample selected through Random Digit Dialing (RDD), making it a superior source of analysis, especially in comparison to student samples that have been mostly employed in previous studies on the effects of social me-

dia on similar attitudes. Therefore, our study goes one step further in identifying the effects of Facebook use in the general population. Last but not least, the study adds to our existing knowledge about the effects of Facebook use by moving away from the well-researched, vibrant social media culture of the US, focusing on Germany, a country notoriously sceptical about social media. While internet penetration in Germany is among the highest in Europe and 97% of Germans surf the internet at least 30 minutes per day, social media use is among the lowest in Europe (Kemp 2014). Given that the German's intense preoccupation with privacy is generally considered as the main reason behind the lack of social media adoption (clearly a cultural rather than a technological reason) (The Economist 2013), we suspect that, especially when it comes to issues of trust, Germans may prove more resilient to effects potentially originating from Facebook use. Hence, Germany establishes an interesting and, so far, less studied case for testing our propositions, which may qualify previous findings and add to our existing knowledge mostly stemming from the US context.

Concerning the creation of our dependent variable, our survey included a question battery asking respondents if they are “a member of one of the following organisations?”: church or religious; sports or leisure-oriented; arts, music or educational organisations; labour unions; political parties, environmental; youth; professional; charitable/humanitarian; peace/anti-war; and anti-globalisation organizations. In order to investigate whether these items reflect the previously mentioned distinction between leisure- and politically-oriented associations (Wollebaek & Selle 2003, p.72), we performed an analysis of dimensionality. Given the binary nature of our items for associational membership, we performed a factor analysis based on a tetrachoric correlation matrix using principal factor extraction with oblique rotation techniques.<sup>5</sup> The results of our factor analysis indicate (Table 1) a two-dimensional solution essentially reflecting a distinction between

(1) membership in leisure-oriented organisations (sports, arts, and youth organisations) and (2) membership in political organisations (labour unions, political parties, environmental, professional, humanitarian, and peace organisations).<sup>6</sup> These results are in line with earlier theoretical discussions about different types of voluntary associations (cf. Warren 2001, p.72,76) and also reflect findings from previous empirical studies trying to classify qualitatively different types of associations (cf. Roßteutscher and van Deth 2002, pp. 20-4).

#### Table 1 ABOUT HERE

Based on the factor structure evident from Table 1, we subsequently created two distinct dependent variables by summing up the respective items for membership in leisure and political organisations. However, given the distributional properties of the resulting scales (most of the respondents in our sample are either non-members or members in just one single organisation; the concrete figures being 85% for leisure organizations and 86% for political organizations)<sup>7</sup>, we finally created two binary dependent variables, each indicating whether a respondent is a member in a leisure or political organisation or not. Thus, in the empirical analysis to follow, we make use of two dummy-coded dependent variables representing membership in two different types of voluntary associations (leisure vs. political organisations).

### **Results**

The empirical analysis is carried out taking into account the distinction between membership in political and leisure oriented organisations. Separate logistic regression models are run for each of the two dependent variables. The analysis will proceed in two steps. In a first step, we will

concentrate on the difference between Facebook users and non-users and investigate Facebook's general mobilising potential. In the second step, we take advantage of a dataset stemming from the second wave of the study to examine whether the hypothesised mechanisms through which Facebook is supposed to exert its mobilising potential (network embeddedness and exposure to information) indeed foster membership in voluntary associations.

The first step of the analysis is presented in Models 1 through 3 (Table 2), showing the direct and moderating effects of Facebook use on membership in leisure organisations, and Models 4 through 6 (Table 3), depicting the effects of Facebook use on membership in political organisations.

Table 2 and Table 3 ABOUT HERE<sup>8 9</sup>

The results of Model 1 and Model 4, which describe the unconditional effects of our variables of interest (Facebook use, social trust and internal efficacy), mostly support our first two hypotheses. We note that, as hypothesized, the antecedents of associational membership have a strong positive and statistically significant effect on associational membership. Internal political efficacy has a strong positive effect on both the propensity to be a member of leisure and political associations<sup>10</sup>. To be more specific, individuals having a maximum level of efficacy are on average approximately 3.5 times more likely to be members of both leisure and political associations than those having the lowest level of efficacy. This translates into a (approximately) 30% increase in the probability to be a member of leisure and political associations<sup>11</sup> for people having the maximum levels of efficacy. Social trust has a very similar effect, but only in the case of leisure associations. An individual with zero trust has a 32% probability to be a member of leisure

associations compared to a 63% probability for the same person having the maximum value of trust. All in all, the results confirm the role of social trust and internal political efficacy as precursors for associational membership. However, we need to note that internal efficacy seems to have a more important role as it is a relevant predictor for membership in both types of associations (providing full support for H1b), while social trust only has an impact on membership in leisure organisations (providing only partial support for H1a).

Going to our main variable of interest, Facebook use, we can again notice a different impact between the two different types of associations. In the case of leisure associations, as hypothesised, Facebook has a positive and statistically significant effect. Therefore, somebody using Facebook is 10% more likely to be a member of leisure associations compared to a non-user. At the same time, the unconditional effect Facebook has on the probability to join political associations is close to zero and statistically insignificant. Thus, H2 only receives confirmation with regard to leisure associations. These findings are consistent with recent literature emphasising that Facebook is particularly conducive for leisure activities (Kahne et al. 2013; Author, 2014), and less so for development of public orientations (Ekström et al. 2014). Accordingly, the distinction between different types of organisations is not only important given the values they nurture (Almond & Verba 1963, p.254; de Tocqueville 2000; Stolle & Rochon 1998), but our results also show that the skill sets that encourage somebody to be a member of an organisation differ between political and leisure associations: While membership in leisure organisations is a joint function of social trust, internal efficacy, and Facebook use, membership in political organisations is a function of internal efficacy.

Turning to test of H3, Facebook also moderates the effects of social trust and internal efficacy. In the case of leisure associations Model 2 and Model 3 in Table 2 show that this moderat-

ing effect is only present in the case of social trust<sup>12</sup>, while the interaction between Facebook use and internal efficacy fails to reach statistical significance. Figure 1 helps us to interpret the interaction effect accurately.

Figure 1 ABOUT HERE

In the case of the effect of social trust on the probability to join a leisure association, we can clearly see that using Facebook makes a difference. The probability of Facebook users to join a leisure association is constant across all trust levels. Facebook users are also 40% more likely (significant at  $p < 0.05$ ) to be members than non-users with similarly low values of trust. Hence we can indeed conclude that Facebook use does compensate for low levels of social trust when it comes to membership in leisure associations. As previously mentioned, this might be a result of two different mechanisms. On the one hand, Facebook can overcome traditional barriers of trust formation. On the other hand, we can also talk about a ceiling effect, as Facebook use cannot further increase the propensity to join a leisure association in the case of those who are already very likely to be members (i.e. those with high levels of trust).

Figure 2 ABOUT HERE

Moving to Facebook's moderating role when it comes to membership in political organisations, we can only observe a moderating effect in the case of political efficacy (see Models 5 and 6 and see Figure 2)<sup>13</sup>. Analogous to the interaction displayed in Figure 1, we notice that the probability of Facebook users to join political associations is basically the same irrespective of their

levels of political efficacy. In this case as well we can speak of a compensation effect. For non-users we can clearly see a substantial impact of political efficacy on the propensity to be a member of political organisations, while this effect practically disappears in the case of Facebook users. Furthermore, we do not detect a statistically significant difference between Facebook users with low efficacy values and non-users with high efficacy values, supporting the “compensation” argument. In sum, then, H3a yields support only for membership in leisure organisations, while H3b receives confirmation for membership in politically-oriented associations only.

In the second step of our analysis, we investigate the exact features of Facebook that are conducive to membership in voluntary associations. For this purpose, we make use of a second wave of the study in which 249 respondents (only Facebook users) were re-interviewed after 6 months. The important feature of this second wave is that it includes items that measure both *network embeddedness* (operationalised as number of Facebook friends, see Appendix 1 for full description) and *exposure to mobilizing information* (operationalised based on two items inquiring respondents if they had been exposed to information about political and social activities via Facebook, see Appendix 1 for full description)<sup>14</sup>. Due to the reduced sample size we only focus on the unconditional effects of the two mobilising features of Facebook.<sup>15</sup> The results presented in Table 3 bring partial support to H4a and H4b. To be more specific, these two features of Facebook exhibit (again) different effects depending on the type of organisation.

Table 4 ABOUT HERE<sup>16</sup>

In Models 7 and 8, we notice that *network embeddedness* has a statistically significant impact on the propensity to be a member of *leisure* associations only (providing partial support for

H4a). Substantively speaking, this implies that an individual having more than 300 friends is 4.5 times more likely to join a leisure organisation compared to an individual having 10 friends or less. Thus, just by having a large network of online-friends, individuals appear to be more likely to get mobilized for membership in leisure organisations offline. This finding is also in line with the proposition of Verba et al. (1995, pp.15-16) stating that isolation from recruiting networks is a main factor for why people do not become active in politics. Transferring their insights to the present study, people with relatively less friends on Facebook are presumably less likely to be members of voluntary associations simply because “nobody asked”. The plausibility of this mechanism is further supported when we consider that most people use Facebook for entertainment- and friendship-driven purposes (Kahne et al. 2013), hence the chance to engage in such activities via Facebook is directly linked to the size of one’s online network. Turning to impact of *exposure to mobilizing information*, we observe that this feature of Facebook only exerts a positive and statistically significant effect on the propensity to be a member of *political* organisations (providing partial support for H4b). Respondents who mentioned that they acquired information about social and political activities and also participated in such activities after they learned about them on Facebook, are 4.8 times more likely to be a member of political associations than respondents who did not use Facebook for these purposes. The mechanism behind this effect is straightforward: once people learn about social and political activities on Facebook, they are more likely to join the associations that organise them. It also needs to be noted that the lack of a significant effect of this mechanism in the case of the propensity to be a member of leisure organisations is not too surprising when we consider that the question wording is specifically oriented towards social and political activities and does not mention leisure or entertainment.<sup>17</sup>

## Discussion

Acknowledging that the socializing potential of SNS may be beneficial for democracy and social and political involvement, recent research has extensively studied Facebook's effects on democratic attitudes and behaviours. While studying Facebook's role in affecting the development and maintenance of social capital, extant research has paid less attention to Facebook's effects on associational membership – one of the cornerstones of a vibrant civil society.

In this article, we investigated the effects of Facebook use on offline involvement and engagement. With regard to Facebook's direct effects on associational membership, we argued that Facebook's inherent social-networking features function as mobilising agencies for membership in voluntary associations even in the offline sphere. Concerning possible indirect effects, our central argument has been that Facebook use moderates the influence of traditional mobilising factors on associational membership by compensating for a lack of social trust and internal political efficacy. Finally, as an additional step, we also presented arguments about two concrete features of Facebook use, *network embeddedness* and *exposure to mobilising information*, that are illustrative of the way in which Facebook use may facilitate membership in offline voluntary associations.

Therefore, our study comes to complement and advance recent studies showing that Facebook has generally beneficial effects for society and democratic engagement (Bond et al. 2012; Gil de Zúñiga 2012; Ellison et al. 2007; Bode et al. 2013). Specifically, our findings not only show that Facebook functions as a mobilising agency for offline associational involvement, but that it can actually compensate for a lack of social trust and internal efficacy when it comes to membership in offline voluntary associations. Interestingly, however, Facebook's direct effects on associational membership are not uniform across different types of associations. As our re-

sults indicate, Facebook use first and foremost increases one's propensity of being a member in leisure-oriented rather than political organisations. Even more revealing are the moderating effects Facebook use exerts on associational membership. We present evidence showing that Facebook use compensates for a lack of social trust and internal efficacy as traditional precursors of associational involvement. Apparently, the comparatively lower competencies, costs and efforts required for becoming active in the online sphere facilitate membership in offline associations even for individuals having low levels of social trust and internal political efficacy. The confidence that the compensation effect of Facebook use is not an artefact is reinforced by the fact that we did not detect any relations between social trust and internal efficacy on the one hand and Facebook use on the other (see Appendix 5). This points to the fact that the conditional/indirect effect of Facebook use is not a result of some inherent characteristics of Facebook users (i.e. higher levels of social trust and internal efficacy) that would rather point to a mediation effect (i.e. that social trust and internal efficacy are positively related to a higher propensity to use Facebook, which in turn favours associational membership), and therefore strengthens the validity of our claims.

Still, Facebook's compensating potential does not apply to all types of voluntary associations equally. Facebook use compensates for a lack of social trust when it comes to membership in leisure organisations, while in the case of politically-oriented organisations it compensates for the lack of political efficacy. Last but not least, our study sheds some more light on the concrete mechanisms through which Facebook use unfolds its mobilising potential: Facebook users who are embedded in a greater network of online friends and are more often exposed to mobilising information online have a higher propensity to be members of voluntary associations in the offline realm. These results suggest that Facebook's mobilising potential works through the exten-

sion of individuals' recruitment networks, which in turn increases one's likelihood of being asked for offline engagement as well.

In light of these results, our study contributes to extant literature in a number of ways. To start with, it complements existing studies that have searched for Facebook's link with the formation and maintenance of social capital. While a number of studies have used voluntary engagement in matters concerning the community as a dependent variable (Gil de Zúñiga 2012), our study takes this research one step further by offering a more refined measure that takes into consideration the different associations individuals may engage in. By showing that Facebook's direct and moderating effects on associational membership are not uniform across leisure- and politically-oriented organisations, we highlight the need for refined theoretical reasoning concerning Facebook's possible impact on democratic engagement in general. This finding is linked to the second contribution of the present study, the investigation of how Facebook use moderates the relationship between social trust, political efficacy and associational membership. Our findings highlight the previous omission by showing that the moderating role of Facebook in joining different types of associations depends on the concrete, "traditional" mobilising factors of associational involvement that is compensated for. Third, our study uses a probabilistic sample which, irrespective of the oversample of non-Facebook users, is remarkably close to the population characteristics, and thus represents an improvement over the convenience exploratory samples of most previous studies. Fourth, and related to the previous points, our study moves the research focus from the American context to the less explored European, non English-speaking domain, using Germany, a country whose population is notoriously sceptical about social media. That Facebook is found to have a positive effect on associational membership in the, so to say, more "reluctant" case of Germany should strengthen our confidence in Facebook's effects on demo-

cratic attitudes and behaviours in general. Finally, we are able to identify specific features of Facebook use that facilitate associational membership, namely network embeddedness and exposure to mobilising information. Although in this case, due to the small  $N$ , the analysis should be taken with a grain of salt, it represents a first step towards pinpointing the specific aspects of Facebook use that encourage associational membership and in more general terms the formation of social capital.

Although our findings allow us to shed some light on the effects of Facebook on associational involvement, we caution against several caveats. To start with, this study relies on cross-sectional data which do not allow for causal inferences and should be interpreted with caution, especially in light of the already troublesome and long-standing debate over the (causal) interrelation between social trust, efficacy and associational membership. Furthermore, we cannot fully dismiss alternative causal paths between Facebook use and associational membership (e.g. voluntary associations could induce individuals to make use of Facebook, or there might be a latent factor that lies behind both Facebook use and membership in voluntary associations). In this study, we have provided plausible theoretical arguments for why Facebook use should facilitate membership in voluntary associations and outlined specific mechanisms through which Facebook use may exert its mobilising potential. Besides, we do not claim that using Facebook induces individuals to become members of voluntary associations *in any deterministic sense*. Rather, our argument states that Facebook, through its inherent networking features, has the *potential* to mobilise individuals for membership in voluntary associations, and thus should increase Facebook users' propensity to be members of offline voluntary associations. Still, being aware of potential endogeneity problems inherent in our study and the analysis of cross-sectional data in general, we sought to provide solid arguments for making the causal path between Facebook use

and associational membership a plausible and theoretically informed option. All in all, the results of our study indicate that Facebook use does not crowd-out offline involvement. Rather, it appears to stimulate and facilitate offline associational membership, thus contributing to the vitality of civil society and democracy.

## Notes

<sup>1</sup> For example, organising a demonstration in an activist group entails higher hurdles than playing football in an amateur sports club.

<sup>2</sup> Recent psychological studies even offer some support for a “social compensation” explanation of the relationship between introversion and Facebook use (Moore & McElroy 2012).

<sup>3</sup> The full technical report of the polling company (Sozialwissenschaftliches Umfragezentrum GmbH) is available on request.

<sup>4</sup> We note, however, that we compared the characteristics of our sample (age, gender, education and marital status) with the micro-census data of the Baden-Württemberg state from 2011 for people between 18 and 49 and did not find any substantial deviations. All in all, our sample contains slightly less educated and younger, more married and female individuals (see Appendix 3).

<sup>5</sup> We excluded membership in anti-globalisation organisations (because there was only one respondent in our sample indicating membership) and “other” organisations (because this type of organisation represents a quite heterogeneous category) from the dimensional analysis.

<sup>6</sup> The item for membership in religious organisations exhibited relatively low loadings (<.30) on either factor and was thus excluded from the analyses. Not surprisingly, religious organisations appear to be very different in nature compared to leisure or political organisations (Wollebaek & Selle 2003, pp.73–74). In addition, the tax system in Germany requires individuals to declare if they belong to any recognised religion. Therefore since a positive answer in the tax declaration can potentially be interpreted as formal membership to a church, it is not clear if all respondents interpreted the question about membership in church or religious organisations in the same way as for the remaining items on membership. This provides an additional argument for not considering it in the empirical analyses to follow.

<sup>7</sup> See also figures A1.1 and A1.2 in the appendix.

<sup>8</sup> Models including income yielded very similar results, but given the high proportion of item missing of this variable (around 25%) we chose not to include income in our final models.

<sup>9</sup> Using count models revealed a very similar pattern of results (see Appendix 2). Still, since 85% of the cases are either non-members or members in just one single organisation, we opt for the results of the binary logistic models.

<sup>10</sup> This finding is also in line with our earlier argument that internal political efficacy reflects and entails components of a more general sense of efficacy and thus its effects should extend even beyond purely political contexts.

<sup>11</sup> All predicted probabilities were computed while keeping all other variables constant (the mean value was used for continuous variables, while 0 was used for dummy variables).

<sup>12</sup> The results were almost identical when the two interactions were simultaneously included in the model.

<sup>13</sup> This is rather expected since in this case the main effect of social trust did not reach statistical significance (see Model 4). The results were almost identical when the two interactions were simultaneously included in the model.

<sup>14</sup> We need to note that due to item missing (mainly due to the fact that respondents refused to respond to the battery of interest), our final sample drops to 123 cases.

<sup>15</sup> Running model specifications including interaction terms in logistic models with the sample size at hand does not yield reliable estimates due to the high number of joint conditions with no or very few cases, but see note 17.

<sup>16</sup> In this case the small N did not allow for the use of count models.

<sup>17</sup> Although the small sample size is far from being ideal for interpreting interactions effects in logistic models, a further analysis suggests that *exposure to mobilising information* also corresponds with our argument about Facebook's compensating role. More specifically, Facebook users showing lower levels of social trust in combination with higher exposure to relevant information on Facebook have a similar propensity to be a member of *leisure* associations as respondents with the reversed combination of social trust and exposure to mobilising information. Similarly, Facebook users exhibiting lower levels of internal political efficacy and higher exposure to relevant information on Facebook have a similar propensity to be a member of *political* organisations as re-

spondents with the reversed combination of internal efficacy and exposure to mobilising information (see Appendix 4).

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