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Analyzing the Political Communication Patterns of Voting Advice Application Users

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Abstract: Voting Advice Applications (VAAs) are Internet tools and a form of receptive political online communication that allow for a comparison of the individual's position on policy issues with those of parties and candidates running for election. Recently, these tools have experienced an increasing demand in Europe. However, a systematic approach to link the research on VAAs with research on political communication is missing. Therefore, the aim of this paper is to link these two research areas and to describe the users of the German VAA "Wahl-O-Mat" in more detail concerning their political communication patterns. Based on findings on the impact of the Internet for political communication and results from international VAA research hypotheses about the political communication habits of VAA users are formulated and tested by creating a political communication typology with a Latent Class Analysis (LCA). With this research strategy, we identify five classes with distinct political communication patterns among the online electorate by drawing on an online sample for the 2009 German Federal Election. The results show that even in the context of elections about half of the online population communicates only to a small extent about politics. Furthermore, using the Wahl-O-Mat is not an exclusive feature of an elite part of the Internet community, but the probability of using the Wahl-O-Mat increases with the bandwidth of political communication. Our analyses indicate that the tool reaches a heterogeneous share of people with regard to political communication, socio-demographic characteristics and political interest and overcomes patterns of political communication.

Keywords: Voting Advice Applications, online communication, Wahl-O-Mat, 2009 German Federal Election, Latent Class Analysis, political communication typologies

Introduction

In modern societies the mass media are a relevant linkage between citizens and the political system. According to Neidhardt (1994) they have a key role for modern democracies by creating the public sphere (see also McNair, 2011). One key function is to provide the citizens with information about politics and relevant policy issues. Especially within the context of elections this function becomes relevant, because information is regarded as a precondition for political participation (Delli Carpini & Keeter, 1996; Tolbert & McNeal, 2003).

With the diffusion of the Internet, the media system has changed and expanded remarkably (Dahlgren, 2001; Gurevitch, Coleman, & Blumler, 2009; Schulz, 2011). In spring 2012, 75.9% (Eimeren & Frees, 2012) of the German adult population (aged 14 or older) stated that they were online at least sometimes. In spring 2009, the point of reference for this study, this share was at least 67.1% (Eimeren & Frees, 2009). Because the majority of

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citizens is online, this could dramatically affect political communication: The amount of political information available for citizens has never been higher than today, although its share is small compared to the enormous amount of non-political content (Emmer, 2005; Emmer & Wolling, 2010; Hill & Hughes, 1998). Since the early stages of the development of the Internet it was regarded as an influence on the modes of (individual) political communication and participation (Chadwick & Howard 2009; Mossberger, Tolbert, & McNeal, 2008). Looking at recent empirical findings individual political communication has indeed changed (Busemann & Engel, 2012; Emmer, Wolling, & Vowe, 2012; Mende, Oehmichen, & Schröter, 2012). These expectations and findings are accompanied by critical voices that regard the Internet as a medium that corroborates the existing asymmetries with respect to political communication and participation (see for example Norris, 2001; Shah, Cho, Eveland, & Kwak, 2005).

Taking these developments into account, the focus of this study is on a popular online application that is used in context of elections to promote information about relevant policy issues and thus tries to mobilize citizens to vote: the "Wahl-O-Mat" ("Elect-O-Mat"). Prior to the German Federal Election in 2009 the Wahl-O-Mat was used 6.7 million times (Marschall, 2011b). Applications like the Wahl-O-Mat are generally called Voting Advice Applications (VAAs) and share a common functionality: They compare the policy positions of voters with those of the parties or candidates running for election (for an overview see Garzia & Marschall 2012). After voters have marked their positions on a list of policy theses, VAAs compare their answer patterns with those of the parties/candidates indicating which party or candidate has the highest degree of proximity to the users' positions.

Using a VAA is a new form of political online communication (Emmer, Wolling, & Vowe, 2011) and can thus be linked with research on political communication. This aspect is not yet addressed by the young subfield of VAA research. Numerous studies have been concerned with the question of how users of these tools differ from non-users in terms of socio-demographic characteristics and political attitudes, but beyond this, the consequences of these findings for the political communication habits have never been addressed in a systematic way. Consequently, based on the findings on the usage of the tools so far, the aim of this paper is to analyze how VAAs, exemplified by the German Wahl-O-Mat, are embedded in the political communication habits of citizens. Since we look at political communication at the micro-level political communication can be defined as all communication that is exerted by citizens and that is directed at political actors or their political activities (Schulz, 2011). Given the explorative character of the study, we are interested to know which citizens use the VAA in terms of political communication and whether those people using it are already politically interested, informed and active, so that the tool "preaches to the converted" (Hargittai, 2002, 2010; Norris, 2001). These questions are part of a broader discussion in political communication research that addresses the mobilization or normalization controversy regarding Internet usage and political participation (Hirzalla, van Zoonen, & de Ridder, 2010). Compared to the studies in VAA research so far, the added value of this study is to systematically include communication variables in the analysis and using a typology of political communication activities to gain a better understanding of the complex political communication patterns of the citizens and analyze how VAA usage can be embedded into it.

We proceed in the following way: First, the theoretical approaches and preliminary findings on the impact of the Internet on political communication are described and a typological approach, in Germany popular and often used, and its dimensionality for analyzing political communication patterns is introduced. We then give an overview about the state of the art in VAA research, ending with hypotheses about how Wahl-O-Mat usage could correspond with political communication habits. To test the hypotheses we create a typology, differentiating between distinct political communication classes. After a further description of these classes in terms of socio-demographics and political attitudes we analyze the Wahl-O-Mat usage across and within these classes to investigate how the tool is embedded in other forms of political communication and to test our hypotheses. In doing so, we add relevant information about the Wahl-O-Mat users in terms of their political communication habits.

Theoretical Framework

The Internet and Political Communication

Since the early stages of the Internet one of the central research questions is concerned with the consequence of Internet usage for political communication and participation. Based on the assumption that information is a precondition for participation the various possibilities on the Internet for political information could lead to a higher political activity, indicating a mobilizing capability of the Internet, the so called mobilization thesis (Emmer & Vowe, 2004; Grossman, 1995; Gibson, Lusoli, & Ward, 2005; Rheingold, 1993; Tolbert & McNeal, 2003). Other scholars deny the mobilizing potentials of the Internet on political participation (Chadwick, 2006; Hindman, 2008; Margolis & Resnick, 2000; Norris, 2001; Oates, Owen, & Gibson, 2006; Schmitt-Beck &

Mackenrodt, 2009; Sunstein, 2001; van Dijk, 2006). They argue that the Internet corroborates existing asymmetries with respect to political communication and participation (normalization thesis) which means that political Internet usage, just as political participation offline, depends on certain socio-demographic characteristics like gender, the level of education or income (see Verba, Schlozman, & Brady, 1995). VAAs in this respect have the explicit aim to promote political mobilization by giving people information about relevant policy issues prior to elections.

Besides the mobilization or normalization controversy the expansion of the Internet and its use for political communication raises the question about the relationship between "traditional media" and the "new" media (Gurevitch et al., 2009). There are also two competing hypotheses here (see De Waal, Schönbach, & Lauf, 2005) that focus on the question of whether there is a growing relevance of the Internet in relation to traditional media: on the one hand it is argued that the shift in relevance towards the Internet has negative effects on the expansion of other media, because recipients have only a limited amount of time available for media usage. This perspective regards the Internet as a substitute for other media, because the Internet and its various applications have advantages over traditional media with regard to effectiveness and individual information needs through personalization and filtering (Mossberger et al., 2008).

On the other hand there is an approach stating that the Internet is used complementary to traditional offline media. In this context routines of media usage and the different motivations to use a certain medium are important. In this regard, the Internet is an expansion of a given media repertoire (Dahlgren, 2001). Whether the Internet can be considered as a substitute for or as complementary to traditional media and whether the Internet really gains relevance for individual political communication is the focus of studies that analyze the Internet use and the intensity of Internet usage along time (see for example Faas & Partheymüller, 2011; Emmer et al., 2011).

Findings from both perspectives are ambiguous. There are several studies that address the substitution hypothesis for print media and electronic media in Germany (for an overview see Kolo, 2010). They show that an overall trend towards substitution cannot be identified. For example, Emmer et al. (2011) show for the German online population that there is no general trend towards substitution with regard to political communication in a longitudinal perspective, although they found out that searching for information and news about politics is an inherent part of Internet usage. However, in general recipients stick to traditional offline media for political information (Eimeren & Frees, 2011). These studies thus find support for the complementarity hypothesis.

In contrast to these findings there are studies that show a trend towards substitution with regard to specific user groups. Results from the "ARD/ZDF-Online-Studie 2011" illustrate for Germany that young people tend to use online newspapers instead of printed newspapers (van Eimeren & Frees, 2011). Faas and Partheymüller (2011) demonstrate that in contrast to 2005 in the latest German Federal Election of 2009 the Internet has gained more relevance as a source for political information to the disadvantage of newspapers.

Since there is no clear evidence either for the substitution or the complementarity hypothesis, the interaction between online and offline political communication seems relevant. Buseman and Engel (2012) second these findings. Comparing profiles of media usage over time with regard to Internet effects they show for the German population that more than one out of four uses the Internet as well as newspaper and radio to get information.

Dimensions of Political Communication and User Typologies

Most definitions of political communication lack an understanding or dimensionality of the communicative acts that political communication refers to (see for example McNair, 2011). Since our aim is to identify political communication patterns of the German VAA users, we use a typological approach that takes different communicative acts into account. Compared to the simple integration of communication variables in the analysis, the construction of a typology allows us to identify distinct groups of users with different, complex patterns of communication activities. We use the dimensionality that is presented in the typological approach of Emmer, Füting, and Vowe (2006) that focuses on political communication on the individual level. This approach does not focus on a specific kind of media and it integrates variables of existing typological approaches that address political communication, participation and media usage (Brettschneider, 1997; Füting, 2011; Gerhards, 1996; Gerbner & Gross; Milbrath & Goel, 1977; Kaase & Marsh, 1979; Reinecke & Trepte, 2008). Another advantage of this approach is that it takes into account online and offline communication, participation and media usage in a single typology. Therefore the basic ideas of this approach will be reviewed briefly.

Emmer et al. (2006) conceptualize political communication along three dimensions: receptive, interpersonal and participative political communication. Receptive political communication is defined as all kinds of individual media usage to gain information about politics. This includes for example watching TV news, reading a political magazine or party statements (Emmer et al., 2006, p. 218). The interpersonal dimension of political

communication refers to talking about politics in co-presence or via one-to-one or one-to-many media like mail, telephone, e-mail or chats. This covers talking about politics with family and friends just as e-mailing a political representative (Emmer et al., 2006, p. 217). Finally, participative political communication means public political engagement like joining demonstrations, signing petitions or voting (Emmer et al., 2006, p. 218). Based on these dimensions using cluster analysis Emmer et al. (2006) and Füting (2011) identified five clusters that describe different types of individual political communication for 2003, 2005 and 2008. Their analyses show that a large part of the German electorate is rather passive concerning political communication in the three dimensions. This share of the population represents the largest cluster in their typology. People that are grouped in the other four clusters are considered as active in terms of political communication but each in a very specific way.

In the following section the state of the art in VAA research and findings about effects of the tools are reported. On this basis, and taking the dimensionality of political communication as introduced in this section into account, we formulate hypotheses about how Wahl-O-Mat usage might correspond with political communication habits.

Voting Advice Applications: The State of the Art

Voting Advice Applications have been established in many European countries in the last few years. The first VAA the "Stemwijzer" was run in the Netherlands, first as a paper-and-pencil version, since 1994 as an online application (De Graaf, 2010). After the year 2000 VAAs began to spread around Europe and beyond. Garzia and Marschall (2012) report more than 40 VAA-like online tools in Europe. To date, the Stemwijzer is the most popular one: In 2012 it presumably reached 38% of the Dutch electorate while the Wahl-O-Mat reached 11% of the German electorate in 2009 (Garzia & Marschall, 2012). Although the common aim of VAAs is to engage citizens in politics, especially young people, there are some differences between the tools concerning their provider, the number of parties that are considered, the number and development of the theses as well as the calculation methods or the presentation of the results (for an overview see Garzia & Marschall, 2012).

With the success of the tools throughout Europe VAA research spread, too. One of the initial questions in the field of VAA research was about the users of these tools and how they differ from the overall population. Findings on these questions were very similar across countries: The typical VAA user can be described as young, male, well-educated, and highly interested in politics (De Rosa, 2010; Ladner & Pianzola, 2010; Ladner, Felder, & Fivaz, 2008; Marschall & Schultze, 2011; Mykkänen & Moring, 2006; Wall, Sudulich, Costello, & Leon, 2009).

Beyond this basic question research expanded and can be sorted into three areas: 1) VAA research that uses the tool for party positioning (Ladner, Felder, & Fivaz, 2010; Trechsel & Mair, 2011; Wheatley 2012), 2) methodological studies that investigate the different calculation methods and the results they produce (Kleinnijenhuis & Krouwel, 2008; Louwerse & Rosema, 2011; Ladner et al., 2010; Walgrave, Nuytemanns, & Pepermans, 2009), and 3) effects of the tools on the users.

For the purpose of this study, findings about the basic socio-demographic characteristics as well as potential effects on the users are helpful in order to formulate our hypotheses. Concerning VAA effects, there is a large body of literature that proves that using these tools has effects on the users. One common, international finding is that VAAs have an effect on the voting intention and voting decision: Mykkänen and Moring (2007) show that using the Finnish VAA increases the likelihood of voting by 20% even when controlled for socio-demographic variables. For the Wahl-O-Mat and the Dutch Stemwijzer figures are about 10% (Garzia & Marschall, 2012; Marschall, 2011). Hirzalla et al. (2010) show that using a VAA especially motivates young citizens that have not been interested in politics before to get involved with politics. Concerning effects on a change of voting decision due to the usage of a VAA the findings range from 6% of the respondents in Germany (Marschall, 2005) up to 10% in Switzerland or in the Netherlands (Garzia & Marschall, 2012).

Focusing on the aim of this study, we continue to explain the functionality of the German Wahl-O-Mat in more detail and report previous empirical findings concerning the socio-demographic characteristics of the Wahl-O-Mat users and potential effects of the tool. The German VAA "Wahl-O-Mat" is provided by the "Bundeszentrale für politische Bildung" (The Federal Agency for Civic Education) which aims at the civic education of the German population. The tool was launched prior to the 2002 Federal Election. Since then it was run at each federal election, a number of state elections and two European elections. The number of uses on the federal level increased from 3.6 million in 2002 to 6.7 million in 2009 (Marschall, 2011a).

The Wahl-O-Mat offers a selection of 38 policy issues that statistically differentiate the political parties running for election. Therefore the parties are asked to position themselves on a long list of policy issues and to reason their positions. The policy issues have the form of short theses that are worked out by an editorial board

consisting of young and first-time voters, scientists and experts from various disciplines. Party manifestos and party statements serve as the basis for the selection and formulation of the theses (Marschall, 2011b). The theses are formulated short and clear, so that that the users can easily understand them and take their positions. For each issue the user can choose to agree or disagree with the statement, to take a "neutral" stance or to skip it. It is possible at any time to go back to an issue and change the stance. Before the tool calculates the degree of proximity between the positions of the users with the positions of the parties or candidates the users can choose to weight those statements they consider important. These count double in the proximity calculation. After this step, users can choose up to eight parties out of a list of all parties registered for the election and compare the results (Marschall, 2011a). For the parties chosen the tool calculates the proximity between the self-positioning of the user and each party according to the city-block method (Marschall & Schmidt, 2010). The result is presented as a ranking list, beginning with the party which has the highest proximity to the user's position. Moreover, the positions of all the parties chosen for the comparison are listed in a form that allows the users to compare their positions. The users can also choose to read the reasoning of the parties.

Since the first version of the Wahl-O-Mat for the 2002 German Federal Election the tool was an object of scientific research (Marschall, 2005). For most elections the Wahl-O-Mat is combined with a randomized online exit-survey questioning every 10th or 20th user of the tool right after the given advice. The goal of these exit-surveys is to find out more about socio-demographic characteristics of the users and possible impacts of the tool. All findings from these exit-surveys are in some way biased, because of self-selection in the sample and self-reported effects that cannot be validated. However, they can give us a first impression about the users.

Findings from the latest exit-survey for the 2009 German Federal Election show that the typical Wahl-O-Mat user fits into the above mentioned characteristic of VAA users, as Marschall (2011b) shows: Wahl-O-Mat users are predominantly male (59.5%), young (around 38% of the users are younger than 30), and interested in politics (79.6%) which is supported by the fact that 90% say that they want to go to the polls. Marschall and Schultze (2012a) confirm this socio-demographic characteristic using a dataset from the "German Longitudinal Election Study" (GLES), which is also used in this study. The motivations to use the Wahl-O-Mat are manifold: For 50% of the users in the exit-survey sample the Wahl-O-Mat is used to validate an existing vote choice while another 22% say that they search for orientation (Marschall, 2011a). In comparison of those Wahl-O-Mat users that are interested in politics and those that stated they were not interested in politics 50% of the latter group say that they use the Wahl-O-Mat for orientation. For the group of politically interested users the possibility to check their already existing voting preference is the major motivation to use the tool (Marschall, 2011b).

Concerning the mobilizing effects of the Wahl-O-Mat Schultze (2012) found out with the GLES data that using the tool has a positive effect on the users' political knowledge about party positions which in turn could have a mobilizing effect on the intention to vote (Faas, 2010). For the 2009 German Federal Election a small, but measureable mobilizing effect of the Wahl-O-Mat was observed by Marschall and Schultze (2012a) analyzing the same dataset. In the exit-survey for the 2009 Federal Election 7% of the respondents report that they want to go to the polls although they had no intention to do this before using the tool. Taking into account that a high share of Wahl-O-Mat users had the intention to vote anyway, mobilizing 7% of the users that did not have this intention before using the tool is quite a success (Marschall, 2011a). Beside this, there seems to be an orientation effect: 46.1% of the users reported in the 2009 exit-survey that using the tool helped them with their vote choice (Marschall, 2011a). For the group of apolitical users even 56.3% reported this orientation effect (Marschall, 2011b). However, one should interpret this finding from the exit-survey with caution, because the answers were given immediately after using the tool, and users were not resurveyed to check if they participated in the election.

While these questions about the socio-demographic background and the possible effects of the Wahl-O-Mat on the users concerning their voting intention and decision are regularly analyzed, only a few variables covering a potential effect on political communication can be found in the dataset: For the Wahl-O-Mat up to 70% of the respondents of the online exit-survey stated that they will talk with others about the advice given by the tool and 52% say that they will search for further political information (Marschall, 2011a). For the Finnish VAA "Vaalikone" and the "Stemwijzer" in the Netherlands similar effects can be found (Garzia & Marschall, 2012). Although there is this reported effect on political communication this relationship has not been addressed by VAA research as a main question. Garzia and Marschall (2012) point out that this is a blank spot on the map of VAA research.

VAAs and Patterns of Political Communication

Due to the fact that research on VAAs from a political communication perspective in a systematic way is not yet available, as described in the former section, our hypotheses about how the usage of the Wahl-O-Mat and political communication habits are linked with each other have explorative character.

Taking into account the socio-demographic characteristics of the Wahl-O-Mat users, especially education and political interest, that both strongly favor political participation and communication, we assume we will find the Wahl-O-Mat user more often in a class with a similar characteristic and a broad bandwidth of political communication. Therefore the first hypothesis can be formulated in the following way:

H1. Wahl-O-Mat users are more likely to be found in a class whose members show a broad bandwidth of political communication in all three dimensions.

Concerning the receptive dimension of political communication we expect to find the VAA users in a class that shifts towards online media, because of the specific combination of age and political interest of the VAA users: As studies on media substitution show, young people are more likely to adopt and integrate new media than older people with stable media usage schemes (Kiefer, 1989). Furthermore being politically interested works as a motivational factor that favors the selection and usage of political online content (see Faas & Partheymüller, 2011). Therefore our second hypothesis is:

H2. Wahl-O-Mat users are more likely to be found in a class whose members strongly or exclusively prefer online media in the receptive dimension.

We also expect the Wahl-O-Mat users to be overrepresented in a class that is characterized by a high level of interpersonal communication. The exit-surveys for the German case indicate that using a Wahl-O-Mat stimulates interpersonal political communication by discussing the given advice with other people. So, our third hypothesis is:

H3. Wahl-O-Mat users are more likely to be found in a class whose members show a high interpersonal communication activity.

While these three hypotheses are tested by analyzing the share of Wahl-O-Mat users compared to non-users in the classes, we can answer some interesting, related questions concerning VAA usage and political communication by looking only at the Wahl-O-Mat users within each class and comparing them. In the theoretical section, we have referred to empirical findings which indicate that the Wahl-O-Mat has an impact on the intention to vote and the voting decision; we assume that this impact is moderated by the bandwidth of political communication. The importance of the tool for the voting decision should be lower for people who are interested in politics and use many sources to obtain political information. For those people who are not very interested in politics and who avoid political communication but have still used the Wahl-O-Mat, we expect that the impact of the tool is higher, because the usage of the tool could play a more important role in the overall political communication habits of the users. Therefore hypothesis four is:

H4. The Wahl-O-Mat has a stronger effect on the voting decision for people in classes whose members show a low political communication activity in all three dimensions.

Following another strategy by using within class comparisons between users and non-users of the tool for each class, we can further analyze, if the German VAA users mentioned the Internet more often as their primary source for political information compared to non-users, independent of their communication habits as described by their class membership. In this context, we assume that this is the case, by formulating hypothesis five:

H5. In each class, Wahl-O-Mat users mention the Internet more often as their primary source of information than non-users.

Method

To test our hypotheses concerning the political communication patterns of VAA users we draw on data from the "German Longitudinal Election Study" (GLES; for more information see Schmitt-Beck, Rattinger, Roßteutscher, & Weßels, 2010) with the focus on the election campaign. This dataset (GLES1006) consists of questions covering the three dimensions of political communication as well as questions on the usage of the Wahl-O-Mat and was realized as an online survey with standardized questionnaires. About 65,000 active members of the Respondi online access panel constitute the total population. The majority of the panel members had been recruited online via opinion sites, on-site surveys and search engines, a smaller share offline via telephone. The sample for the online survey (N = 1153) was realized as a quota sample taking gender, education and age into account, inviting the respondents in several waves in order to meet the target quotas. The dataset also includes an

adjustment variable for the entire online population in Germany at age 18 and older that is used in all of the following analyses.

Due to the quota sample, the data can be at least qualified as representative for the German online population in terms of gender, education as well as age and therefore offers some advantages compared to datasets used in a number of other VAA research projects: First of all, this online panel guarantees an adequate and proportional representation of those groups which are normally hard to reach through online surveys (e.g. older people or persons with low education) – an aspect which self-selection methods are not able to guarantee (see e.g. Walgrave, Aelst, & Nuytemans, 2008; Wall, Krouwel, & Vitiello, 2011). Another advantage of the dataset is that it allows us to create groups of non-users for purposes of comparison, while data that relies on exit-surveys conducted on-site after VAA use can only take the users of the tool into consideration. Even though this dataset is therefore superior to exit-surveys, there are a number of limitations that should be mentioned: First, the dataset is not representative for the whole German electorate, as it is not a random sample of the electorate, but a quota sample of the people who have access to the Internet. Second, as mentioned above, despite the complex invitation and weighting process, the dataset should also not be considered as online-representative in general, but only in terms of gender, education and age. For other variables there is a selection bias in such online-panels that favors recruitment of people who use the Internet for political purposes more often and who are also more likely to be users of the Wahl-O-Mat. Third, self-reports about the potential impact of a VAA on the voting decision would be better measured with panel data, that re-checks to what extent this self-report holds until and after the election (see also Walgrave et al., 2008). For a comparison of the entire electorate, the online electorate, the typical Wahl-O-Mat user and the typical exit-survey user of the Wahl-O-Mat, see Marschall and Schultze (2012b).

The typology of Emmer et al. (2006) is the analytical starting point for our empirical analyses. Due to the use of secondary data analysis and the limited number of appropriate variables in the dataset it is not possible to replicate the typology one to one, but the dimensionality of the approach can be taken into account. We assume that using such a typological approach in order to differentiate distinct groups with complex communication patterns is superior to the use of single communication variables in regression analyses, because it allows us to identify and label different groups and to use these groups for further analysis. This is a common research strategy (Emmer et al., 2006; Haas, 2007; Mahrt & Begenat, 2013; Ruhrmann, 2003; Trebbe, 2003; Treumann, 2007; Oehmichen & Schröter, 2008). Contrary to Emmer et al. (2006) who use cluster analysis for the creation of their typology and to distinguish between different groups with distinct communication patterns, we use the method of Latent Class Analysis (Bacher & Vermunt, 2010; McCutcheon, 1987) and the Software Mplus 6.11 (Muthén & Muthén, 2010) to create our typology. In comparison with cluster analysis this method has the advantage that it is based on inference statistics and that we can rely on fit measures to analyze the distinctiveness of the classes (Hartmann, 2011). This feature helps us to evaluate the classification quality of our classes.

For the receptive dimension our binary variables represent the aspect whether the respondents did or did not inform/watch/read about politics and the Federal Election in the last seven days 1) on the Internet, 2) in public TV news which covers “Tagesschau”, “Tagesthemen”, “Heute” and the “Heute Journal”, 3) in private TV news which covers “RTL Aktuell”, “Sat. 1 Nachrichten” and “Pro 7 Newstime”, 4) in the tabloid press (BILD Zeitung), 5) in quality newspapers which are “Frankfurter Rundschau”, “Frankfurter Allgemeine Zeitung”, “Süddeutsche Zeitung”, “die Tageszeitung” and “Die Welt”, and 6) in online newspapers. The interpersonal dimension is represented by binary variables that asked if the respondents talked about politics 7) with friends and family in the last seven days or 8) with acquaintances in the last seven days, as well as 9) if they had visited campaign stands for political information. Finally, the participative dimension is covered by the questions if the respondents 10) had visited campaign events or announcements and 11) if they are actively involved in the on-going campaign for a certain party. Our typology thus consists of 11 variables (for more information about the question texts and coding see the appendix). The usage of the Wahl-O-Mat itself is not part of the typology. Conceptually the usage of the tool belongs to receptive political communication, because VAAs give information about party positions in the form of a special man-machine interaction (Emmer et al., 2011, p. 11). However it is a very special form of political communication, and it is not on the same level of abstraction as the other variables in the typology. Another reason for not including Wahl-O-Mat usage in the typology is research-driven: to test our hypotheses it is necessary to not include it in the typology in order to profile the typology in more detail with the Wahl-O-Mat usage variable.

After a brief description of the results of the Latent Class Analysis, we relate the respondents to their most likely class membership for further diagnostic purposes. In a second step we describe the class members concerning their socio-demographic characteristics and political attitudes to sharpen the picture of the typical class member and to label the classes. In a last step we include the usage of the Wahl-O-Mat in our analyses. We therefore differentiate the variable that asks about the Wahl-O-Mat usage to create the following types: people who are

aware of the Wahl-O-Mat and have used it ("users"); people who know the Wahl-O-Mat but have not used the tool ("aware non-users"), and finally, people who have not heard about the Wahl-O-Mat and therefore did not use it either ("unaware non-users"). Comparing the distribution of Wahl-O-Mat users across the classes (H1 to H3) as well as inter-class analysis between users (H4) and intra-class analysis between users and non-user groups (H5) enable us to test all our hypotheses and to analyze the Wahl-O-Mat users in terms of their political communication patterns.

Empirical Analyses

Latent Class Analysis

Based on the selection of the variables, we estimated a 5 class solution that can be interpreted substantially and has good fit measures. We also tested a 4 and 6 class solution, which had worse fit measures and could not be interpreted substantially. Table 1 shows the statistical distinction between the classes.

Table 1
Average Latent Class Probabilities for Most Likely Latent Class Membership (Row) by Latent Class (Column) and Entropy (Classification Quality)

	1	2	3	4	5
1	**0.847**	0.071	0.071	0.011	0.000
2	0.021	**0.795**	0.169	0.014	0.000
3	0.016	0.077	**0.825**	0.076	0.005
4	0.001	0.014	0.146	**0.839**	0.001
5	0.000	0.005	0.022	0.020	**0.953**
Entropy	0.783				

According to Rost (2006) the average class probabilities for the reliability of the class solution should be about 0.80 or higher to indicate that the respondents can clearly relate to a class. For our data class 5 had excellent, classes 1 to 4 good probability values. The assignment of respondents to class 2 however has a small fuzziness, indicating a small chance that some of the respondents could also be assigned to class 3. All in all with the variables used, we found a 5 class solution which is reliable (see also Geiser, 2010, p. 235–271). According to that classification Table 2 shows the number of respondents in each class and their relative proportion in the sample.

Table 2
Class Counts and Proportions

	Class 1	Class 2	Class 3	Class 4	Class 5	Total
N	35	108	419	343	248	1153
%	3.0	9.4	36.3	29.7	21.5	100

Figure 1 shows the estimated probabilities for category 1 of our binary variables (used, visited, and did conversation) for each class, which allows us to describe the class members in terms of their political communication patterns. The decision to set the threshold between the non-existence and the existence of the activity rather than between a low and a high intensity of the activity, should lead to an–at a first glance–optimistic view about the political information patterns of the respondents. Furthermore it has implications for the interpretation: Because of this binary nature of the variables the estimated probabilities show how many per cent of the members of each class used the different forms of political communication. Another possibility is to interpret the estimated probabilities as the probability of the usage of the forms of political communication for a typical member of the class. Because there is no statistical test whether the probabilities across the classes are significantly different, the main purpose of such a typology is to visualize differences and help to characterize the typical features of each class in a substantial way. In those cases where more than two classes have very similar probabilities for a variable, we therefore additionally describe the class relationships with the help of the intensity of the usage (low–medium–high; not shown in tables). Such variables are political Internet use for classes 1 to 3, the use of tabloid media for classes 3 to 5 and finally conversations with friends and family for classes 1 to 4. As a result of the analysis the communication patterns in the classes can be described in the following way:

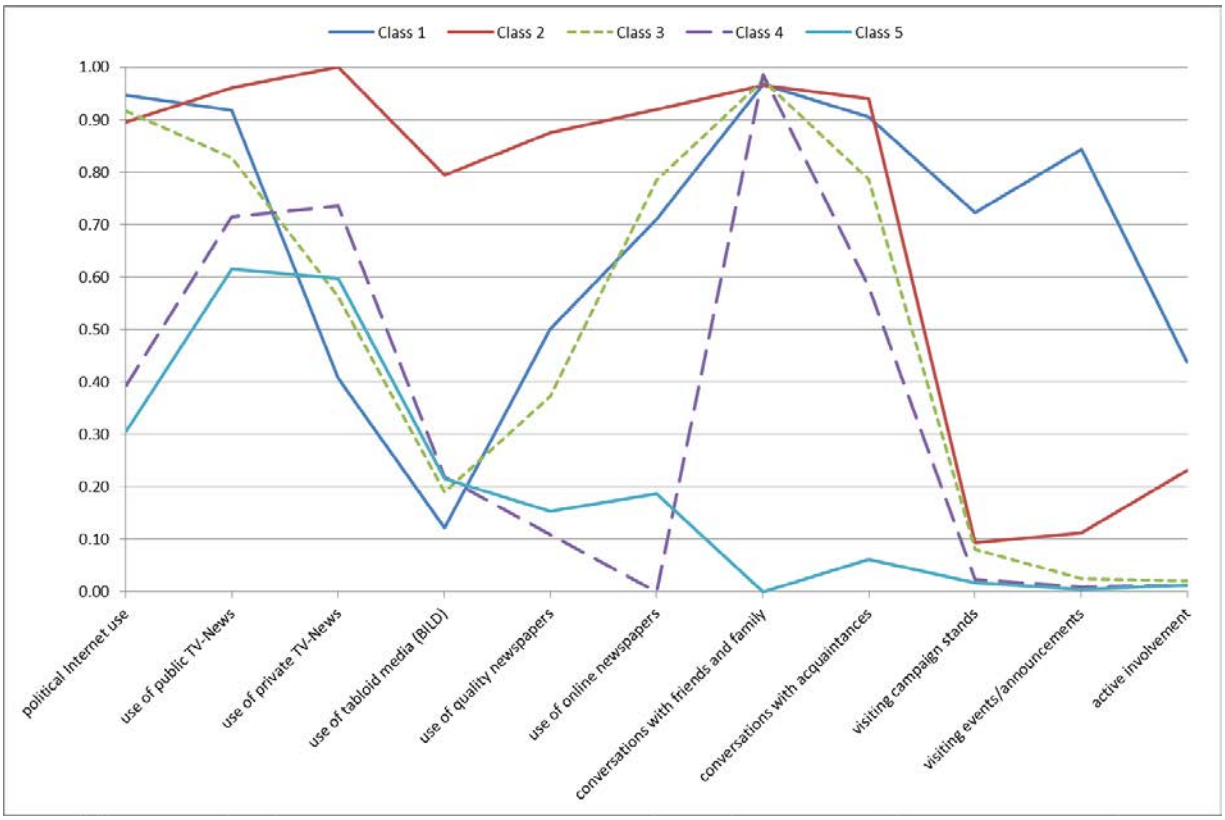


Figure 1. Estimated probabilities by class.

Class 1 is the smallest group consisting of only 3% of the respondents in the sample. The members of this group show a high level of information seeking in quality media as well as a high level of interpersonal political communication. The intensity of political Internet use and conversations with friends and acquaintances is higher than for any other class. In the participative dimension members of class 1 are also clearly the most active citizens.

Members of *class 2* (about 10% of the sample) use the full range of information resources in the receptive dimension (Internet, public and private TV news, on- and offline newspapers). They use quality and non-quality forms for political information and have a high probability for interpersonal political communication. The intensity of using the Internet for political information is below class 3 and clearly smaller than for class 1. But members of this class show the highest probability of using online newspapers. Conversations with friends and acquaintances are in their extent below people in class 1, but higher than for citizens in class 3 and 4. At a low level, members of class 2 are more active in the participatory dimension than classes 3 to 5.

Class 3 consists of about one third of the respondents and is the largest group. The members use the Internet more often for political information than other sources in the receptive dimension, while the intensity of the usage is lower compared to class 1, but higher than in class 2. The usage of the tabloid media is low in this class, and for the few who read tabloid media the intensity is also low. This characteristic also fits for all other classes except for class 2. In the interpersonal dimension people of class 3 are less active than members of class 1 and 2. Citizens of class 3 can be further described as to avoid participatory elements. They share this pattern with people in class 4 and 5.

Class 4 members show a clearly lower probability of political information in the receptive dimension. They use public and private TV news intensely for political information, but neither newspapers nor the Internet. The group is characterized by the fact that the probability that one reads an online newspaper equals zero. Even though they speak with friends or family members about politics, they do so seldom compared to members of classes 1 to 3. In the interpersonal dimension only a bit more than half of the citizens in this class talked with acquaintances about politics and de facto no one showed an activity in the participatory dimension.

Members of *class 5* have a low communication and information behavior, their primary information source are like in class 4 public and private TV news. In this group members do not talk about politics with their family or friends and very seldom with acquaintances. Their interpersonal political communication is therefore very low, and they show no interest in participatory activities.

So far, our analyses show that there are distinct classes in the sample in terms of political communication in the context of the 2009 German Federal Election. Regarding the population in the sample we have found a small share of people with a very high level of political communication (class 1 and 2) while a majority of people (class 4 and 5) can be characterized by the fact that they communicate very seldom about politics. At this point of our analyses we can already abolish hypothesis two, because no class can be identified that clearly shows a strong or exclusive preference for online media, so that the basic requirement of this hypothesis is not given.

Table 3
Socio-Demographic Distribution and General Political Attitudes by Class (column per cent)

	Class 1 (n = 35)	Class 2 (n = 108)	Class 3 (n = 419)	Class 4 (n = 343)	Class 5 (n = 248)	Total
Gender						
Male	65.7	58.3	63.7	45.9	44.0	53.7
Female	34.3	41.7	36.3	54.1	56.0	46.3
Age						
18–24	13.9	21.0	16.3	16.1	14.6	16.2
25–34	16.7	21.0	18.0	15.5	19.0	17.7
35–44	16.7	21.9	20.2	25.5	28.3	23.6
45–59	25	28.6	27.6	28.4	24.3	27.0
60+	27.8	7.6	17.8	14.4	13.8	15.3
Education						
Low	14.7	27.4	24.4	38.7	39.6	31.9
Medium	38.2	40.6	36.2	41.4	46.1	40.4
High	47.1	32.1	39.4	19.8	14.3	27.7
Political interest						
Strong or very strong	88.9	75.9	63.9	31.5	24.5	47.7
Average	11.1	22.2	28.6	47.2	38.6	35.2
Weak or none	0.0	1.9	7.5	21.3	36.9	17.2
Satisfaction with democracy						
Quite or very satisfied	51.4	32.4	34.5	30.4	22.0	30.9
Partly satisfied and unsatisfied	34.3	43.5	43.1	45.9	52.4	45.5
Quite or very unsatisfied	14.3	24.1	22.4	24.6	25.6	23.6
Voting intention						
Sure or voted via mail	100	86.8	89.3	85.7	63.8	83.0
Likely	0.0	12.3	7.7	8.9	22.0	11.2
Unlikely	0.0	0.9	2.9	5.4	14.2	5.7
Member of a party						
Yes	34.3	8.3	4.1	1.2	1.6	4.0
No	65.7	91.7	95.9	98.8	98.4	96.0
Member of a trade union						
Yes	17.1	18.5	16.5	13.1	8.0	13.8
No	82.9	81.5	83.5	86.9	92.0	86.2

Socio-Demographic Background and Political Attitudes

To describe the respondents further in terms of their socio-demographic background and their general political attitudes we relate them to their most likely class membership for diagnostic purposes. Table 3 gives an overview of these characteristics, which are in the following combined with the results of the previous section. Based on this combination of socio-demographic characteristics and patterns of political communication we will label the classes. As for other typologies the chosen names are to a certain extent arbitrary and disputable, highlighting some characteristics over others. On the other hand labeling classes allows a more vivid illustration.

Members of *class 1* are predominantly male and their formal education is high compared to other classes. Surprisingly class 1 is the oldest group on average, but also the class with the highest level of political Internet usage. Members of this class are also the most active concerning political communication which might be related

to the fact that they are at the same time very satisfied with democracy. All respondents in the group said that they will vote for sure or already voted via mail; about one third of them are even members of a political party. Based on these characteristics we label those people as *Elitist Silver Surfer*.

Respondents that were related to *class 2* are on average younger than people in other classes, with a medium formal education. It is a characteristic of members of this group that they are very interested in politics, but also most frequently only partly satisfied with democracy. This relative dissatisfaction however does not lead to a rejection of politics. Most of them will vote and they are relatively often members of a political party or a trade union. Combining these facts we call respondents of this class *Influence-Seeker*.

Citizens in *class 3* are of middle age with average to high formal education and they are predominantly men. One third is very or quite satisfied with democracy, but nearly two out of three are very interested in politics. Most of them state that they will participate in the election. This class differs from other classes by the fact that those people use the Internet to seek for political information slightly more often than using traditional media; however their overall share of political Internet usage is not higher than in class 1 or 2. Referring to Emmer et al. (2006) this class is called *Online Mainstreamer*.

The *classes 4* and 5 show similarities in their socio-demographic background and in their attitudes towards politics. Members of these classes have a relatively low education; their political interest is lower compared to the other classes. Members of both classes seem to avoid political communication especially in the participative dimension and on the Internet. Instead they stick to TV news for political information. These two classes are mainly separated by the fact that members of class 4 do talk about politics even though they do so with less intensity then members of classes 1 to 3, while persons in class 5 never talk with family and friends about politics and very seldom with acquaintances. Moreover, the people in class 4 show a higher voting intention and are more satisfied with democracy than members of class 5. Consequently we label members of class 4 as *Traditional Low-Communicator* and people in class 5 *Unsatisfied Non-Communicator*.

Combining the political communication patterns of our classes with additional socio-demographic characteristics and political attitudes to further profile the classes, the analysis showed clearly, that there is no class that only uses the Internet for political information and communication; instead there are two classes (*Traditional Low-Communicator* and *Unsatisfied Non-Communicator*), which represent half of the respondents in the sample, with a very low probability for using the Internet for political information at all. On the other hand those classes with distinct political online information habits also use traditional quality forms of information. This is true for *Elitist Silver Surfers*, *Influence-Seekers* and *Online Mainstreamer* in descending intensity. The respondents labeled as *Traditional Low-Communicator* or *Unsatisfied Non-Communicator* who do not use the Internet for political information do not use quality forms of information in newspapers either. Their primary resources for political information in the context of the 2009 German Federal Election are public and private TV news. One explanation for the non-Internet and non-print use for political information may lay in the fact that both of these media share the same motive: information-seeking (see Kolo, 2010; Eimeren & Frees, 2012). What we know about *Traditional Low-Communicators* and *Unsatisfied Non-Communicators* is that those people are not very interested in politics, so consequently their need for information about politics is low. Moreover using newspapers for informational purposes is a selective act that follows the “pull-logic” of the Internet (Jarren & Donges, 2011, p. 80).

Wahl-O-Mat Usage and Patterns of Political Communication

Now that we have described the classes in terms of political communication habits and socio-demographic characteristics we analyze how Wahl-O-Mat usage is distributed in these classes to test our remaining hypotheses. With respect to our first hypothesis Wahl-O-Mat users should be overrepresented in the group of *Elitist Silver Surfers* and *Influence-Seekers*, because respondents in these classes show the broadest bandwidth of political communication in all three dimensions with emphasis on the participatory dimension for the *Elitist Silver Surfers* and the receptive dimension of the *Influence-Seekers*. Figure 2 shows the relative frequencies of the users compared to the aware non-users and unaware non-users of the tool sorted by class. The figure shows that using the Wahl-O-Mat is clearly more likely among *Elitist Silver Surfers*, and slightly more likely for *Influence-Seekers* and *Online Mainstreamers*, when compared to the entire sample population. For the *Traditional Low-Communicator* and *Unsatisfied Non-Communicator* with generally less political communication habits this share is lower. These relationships between Wahl-O-Mat usage and class are moderate and on the 1% level significant (Cramer’s V = 0.231, $p < .01$, $n = 1144$). Therefore, this distribution of Wahl-O-Mat users in the five classes supports hypothesis one at least partly.

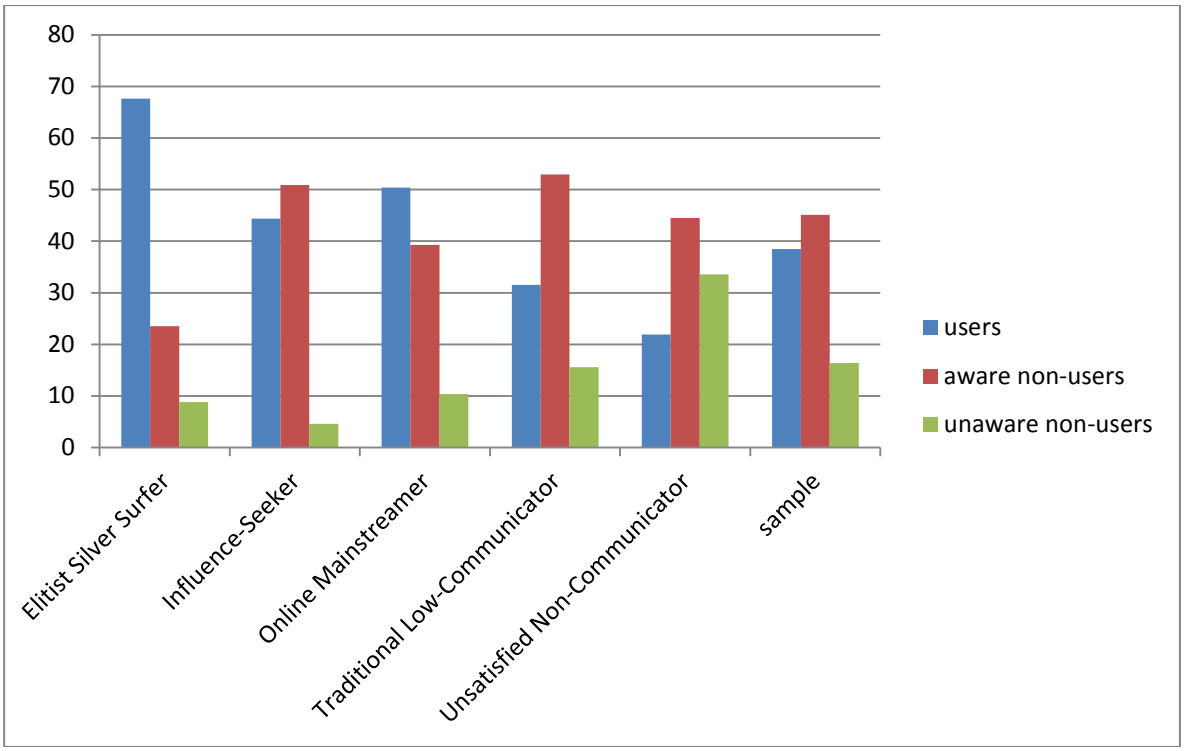


Figure 2. Usage of the Wahl-O-Mat by class (in percentage). The relationship between Wahl-O-Mat usage and class is moderate and on the 1% level significant (Cramer's V = 0.231, $p < .01$, $n = 1144$).

Due to the fact that Wahl-O-Mat usage promotes interpersonal communication and on the basis of the socio-demographic characteristics of Wahl-O-Mat users we expect that Wahl-O-Mat users are more likely to be found in a class whose members are very active in the interpersonal dimension of political communication (H3). This is the case for *Elitist Silver Surfers*, *Influence-Seekers* and *Online Mainstreamers*, which, as described above, contain a significant higher share of Wahl-O-Mat users than the two remaining classes. Thus, this finding supports our third hypothesis.

Table 4
Relevance of the Wahl-O-Mat for the Voting Decision by Class (Column in Percentage)

Relevance	Elitist Silver Surfer	Influence-Seeker	Online Mainstreamer	Traditional Low-Communicator	Unsatisfied Non-Communicator
Likely or certain	20.8	25.5	22.5	17.8	27.8
Maybe	12.5	23.4	17.2	16.8	16.7
Unlikely or certainly not	66.7	51.1	60.3	65.4	55.6
Total	24	47	209	107	54

With regard to H4 we tested if the relevance of the Wahl-O-Mat for the voting decision differs across the classes. We assume that, due to the fact that *Traditional Low-Communicators* and *Unsatisfied Non-Communicators* have relatively low levels of political interest and political communication but still have the intention to vote, the relevance of the Wahl-O-Mat for the voting decision should be higher for Wahl-O-Mat users of these classes compared to the remaining classes. Generally, the distribution of the variable that covers this aspect shows that about 22% of the users in the sample mentioned a certain or likely influence of the tool on their voting decision, while about 18% are undecided and the majority of 60% answered that using the Wahl-O-Mat has no or an unlikely influence on their voting decision. We have to take into account that these statements about the influence of the Wahl-O-Mat on vote choice are self-reported assessments. So, possible findings concerning a Wahl-O-Mat effect on the vote choice have to be interpreted with care. As Table 4 shows, a cross tabulation of this variable with the classes reveals no significant differences between the VAA users in the classes. So, even though the German VAA exerts some influence on the voting decision as shown in the theoretical section, this result is–according to the sample used here–not mediated by the communication patterns represented in the different classes, indicating counterevidence with respect to this hypothesis (Cramer's V = 0.074, *n.s.*).

Furthermore we tested whether using the Wahl-O-Mat is related to the aspect that the Internet is mentioned as the most important source for political information or not, independent from the different political communication habits in the classes (H5). If this hypothesis gains empirical support the Wahl-O-Mat users in all

classes should mention the Internet as the most important source for their political information more often than the non-users. Table 5 shows this aspect by contrasting the respondents that mentioned the Internet as their most important source for political information versus any other source of political information for the different Wahl-O-Mat user groups in the five classes and for the entire sample. Analyzing Table 5, it can be observed that there are differences between the classes concerning the share of people mentioning the Internet as their most important source for political information (see class descriptions in the previous sections), but there are also within-class differences between users and non-users, which follow the same pattern: For users of the Wahl-O-Mat the Internet is more often the most important source for political information than for non-users. This consistent pattern fits for all classes. Due to the small number of cases for the *Elitist Silver Surfers* and *Influence-Seekers* and the non-significant relationship for the *Traditional Low-Communicator*, these differences in the ascription of the Internet as the most important source for political information are only significant for the class of the *Online Mainstreamer* and the *Unsatisfied Non-Communicator* as well as for the entire sample. Because of the consistency of the results and the overall trend we consider H5 as supported.

Table 5
Share of Respondents (in Percentage) That Mentioned the Internet as Most Important Source for Political Information vs. Any Other Source Mentioned by Wahl-O-Mat User Groups and Class

	Users	Aware non-users	Unaware non-users	Cramer's V
Elitist Silver Surfer	Internet: 26.1 other: 73.9 *n* = 23	Internet: 12.5 other: 87.5 *n* = 8	Internet: 0.0 other: 100 *n* = 3	0.212; *n.s.* *n* = 34
Influence-Seeker	Internet: 37.5 other: 62.5 *n* = 48	Internet: 21.4 other: 78.6 *n* = 56	Internet: 20.0 other: 80.0 *n* = 5	0.178; *n.s.* *n* = 109
Online Mainstreamer	Internet: 42.3 other: 57.7 *n* = 208	Internet: 27.0 other: 73.0 *n* = 163	Internet: 23.3 other: 76.7 *n* = 43	0.171** *n* = 414
Traditional Low-Communicator	Internet: 15.0 other: 85.0 *n* = 107	Internet: 11.7 other: 88.3 *n* = 180	Internet: 7.5 other: 92.5 *n* = 53	0.075; *n.s.* *n* = 340
Unsatisfied Non-Communicator	Internet: 31.5 other: 68.5 *n* = 54	Internet: 13.6 other: 86.4 *n* = 110	Internet: 3.6 other: 96.4 *n* = 83	0.291** *n* = 247
Total	Internet: 33.0 other: 67.0 *n* = 440	Internet: 18.0 other: 82.0 *n* = 517	Internet: 9.6 other: 90.4 *n* = 187	0.212** *n* = 1144

*$p < .05$, **$p < .01$.

Regarding our hypotheses about how Wahl-O-Mat usage and patterns of political communication may interact, our findings only partly match our expectations. Even though the likelihood of Wahl-O-Mat usage seems to increase with the bandwidth of political communication as formulated in H1, this tool is not clearly related to a specific pattern of political communication. Therefore, H1 was only partly confirmed. We could, however, get empirical support for H3, because Wahl-O-Mat users are indeed more likely to be found in a class whose members are characterized as very active in the interpersonal dimension. Regarding the impact of the advice the tool gives, as tested with H4, there are no significant differences between the members of the five classes in the ascription of the importance of the tool for their voting behavior despite different information patterns in the classes. Besides these quite heterogeneous findings one common characteristic of Wahl-O-Mat users is their preference for the Internet as the most important source for political information as tested and confirmed in H5.

Summary and Discussion

Using the Internet is a daily routine for a majority of people in Germany. This is not equally true for political Internet use. As our analyses in the context of the 2009 German Federal Election show, traditional media and the Internet are used complementary, and the general level of political communication among our online sample is remarkably low, taken into account that the data was collected immediately before the election.

Concerning the question of how using the Wahl-O-Mat corresponds with more general patterns of political communication our results are ambiguous: On the one hand we found evidence that the probability of using the Wahl-O-Mat increases with the overall level of political communication. On the other hand this tool reaches a high share of the German online population despite their specific political communication patterns. Furthermore,

we did not find any support for the expectation that the relevance of the Wahl-O-Mat for the voting decision differs across the classes or that the Wahl-O-Mat user can primarily be found in a class that shifts towards online media. Instead, what gains empirical support is that Wahl-O-Mat users in each class find the Internet more important for political information compared to the group of "aware non-users" and "unaware non-users". Because of these findings, the usage of the tool cannot be clearly arranged in existing political communication patterns and preaches not only to the already converted in terms of political communication.

Taking the results together, our analysis showed that using the Wahl-O-Mat is not a feature of a special elite part of the Internet community, but reaches at least some people in every class and thus also people who are not strongly interested in politics and with a low or medium formal education and a low level of political communication. In this regard, the Wahl-O-Mat as a specific online tool seems to overcome–at least to a certain degree–patterns of political communication and is used by a heterogeneous share of people in the context of the 2009 German Federal Election. The Wahl-O-Mat thus has the potential to get people involved in politics that otherwise are rather passive in terms of political communication. This could favor more substantial political participation. As stated above, there is empirical evidence that VAA usage mobilizes at least electoral participation.

What our results imply for theories of political communication is that the effects of Internet usage are difficult to measure. Since the Internet and its various applications have very heterogeneous formats every analysis has to be sensitive to the respective application, the data set and the specific user structure. Our analysis of Wahl-O-Mat users and their political communication habits can therefore hardly be transferred to online participation in general.

Moreover the quality of the data available for this study should prevent us from too far reaching generalizations. As pointed out, the use of an online access panel has certain advantages compared to exit-surveys in terms of self-selection and allows for a comparison with non-user groups. However, the dataset can only be considered as roughly representative for the online population according to the distribution of gender, age and education, while other characteristics may be over- or underrepresented. The integration of VAA variables in a random sample of the entire German electorate therefore would be a substantial improvement in data quality generating more robust findings.

Nevertheless, using the Wahl-O-Mat is an efficient but also a "case-and-moment specific application" (Hirzalla et al., 2010, p. 3) to get substantial information relevant prior to elections. What we do not know yet from a political communication perspective is what motivates people to use the Wahl-O-Mat in comparison to other types of media: Do Wahl-O-Mat users see specific tool related advantages that distinguish the Wahl-O-Mat or VAAs in general from other media? Can VAAs as online tools substitute other forms of political information? To test this, Wahl-O-Mat usage could be linked to theories of subjective media choice.

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Appendix

Original Question Texts (English Translations in Squared Brackets) and Coding for the Eleven Variables of the Latent Class Analysis

1) *Political internet use*
"An wie vielen Tagen haben Sie sich in der vergangenen Woche im Internet über Politik und die Bundestagswahl informiert?" ["Within the last week: on how many days did you use the Internet to inform yourself about politics and the federal election?"]

Coding: 0 = did not use in the last week
1 = did use in the last week

2+3) *public and private TV-News*
"An wie vielen Tagen haben Sie in der vergangenen Woche eine der folgenden Nachrichtensendungen gesehen?" ["Within the last week: on how many days did you watch one of the following TV-News?"]

(A) Tagesschau oder Tagesthemen; (B) Heute oder das Heute Journal; (C) RTL Aktuell; (D) Sat. 1 Nachrichten; (E) Pro 7 Newstime

Coding: Coding public TV-News: 0 = did not watch TV-News (A) or (B) in the last week
1 = did watch TV-News (A) or (B) in the last week
Coding for private TV-News: 0 = did not watch TV-News (C), (D) or (E) in the last week
1 = did watch TV-News (C), (D) or (E) in the last week

4 to 6) *tabloid media, quality newspapers, online newspapers*
"An wie vielen Tagen haben Sie in der vergangenen Woche politische Berichte in den folgenden Zeitungen gelesen? " ["Within the last week: on how many days did you read about politics in one of the following newspapers? "]

(A) Bild-Zeitung; (B) Frankfurter Rundschau; (C) Frankfurter Allgemeine Zeitung; (D) Süddeutsche Zeitung; (E) die tageszeitung; (F) Die Welt; (G) Eine Online-Zeitung; (H) Eine andere Zeitung

Coding for tabloid media: 0 = did not read about politics in the last week in (A)
1 = did read about politics in the last week in (A)
Coding online newspapers: 0 = did not read about politics in the last week in (B), (C), (D) (E) or (F)
1 = did read about politics in the last week in (B), (C), (D) (E) or (F)
Coding for quality newspapers: 0 = did not read about politics in the last week in (G)
1 = did read about politics in the last week in (G)

7) *conversations with familiy and friends*
"Und an wie vielen Tagen haben Sie sich in der vergangenen Woche innerhalb der Familie oder mit Freunden über Politik unterhalten?" ["Within the last week, on how many days did you talk about politics with your family or friends?"]

Coding: 0 = did not talk with family or friends in the last week
1 = did talk with family or friends in the last week

8) conversations with acquaintances
"Und an wie vielen Tagen haben Sie sich in der vergangenen Woche mit Bekannten, z.B. Nachbarn oder Arbeitskollegen, über Politik unterhalten?" ["Within the last week, on how many days did you talk about politics with your acquaintances? "]

Coding: 0 = did not talk with acquaintances in the last week
1 = did talk with acquaintances in the last week

9+10) campaign stands, events/announcements
"Haben Sie in der letzten Zeit von den Parteien Informationen über die bevorstehende Bundestagswahl erhalten? " ["Have you received information about the election from the political parties lately? "]

(A) Ich habe Wahlveranstaltungen bzw. Kundgebungen besucht. [I visited a campaign event or announcement.]

(B) Ich war an einem Wahlkampfstand von Parteien oder Kandidaten. [I visited a campaign stand of a party or a candidate.]

Coding for campaing stands:	0 = did not visit (B)
	1 = did visit (B)
Coding for events/announcements:	0 = did not visit (A)
	1 = did visit (A)

11) *active involvement*
"Sind Sie selbst aktiv am laufenden Wahlkampf einer bestimmten Partei beteiligt?" ["Are you actively involved in an ongoing election campaign of a political party?"]

Coding:	0 = not actively involved
	1 = actively involved