

Three Case Studies from Switzerland: Smartvote

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ABSTRACT

Since 2003, a diverse coalition of political scientists, computer scientists, economists, historians, and other specialists largely affiliated with universities have developed and made broadly available an online voter information system in Switzerland called Smartvote. By taking user input and candidate data about positions on various political issues, Smartvote ranks and matches citizens with the politician that best matches their preferences. This case study gives an overview of Smartvote, examining the design, administration, and development of the system into the future. While this initial assessment suggests that Smartvote possesses huge opportunities to improve access to information among the electorate, promote participation in elections, and increase transparency on political positions, it also suggests that there are several salient risks. These include biases in the survey tool that collects information for Smartvote, the impact of a largely opaque system of administering Smartvote, and insufficiently rich data in matching voters to candidates. The case study suggests various improvements to the system, and suggests that Smartvote ultimately plays a positive role in increasing information accessibility to citizens in the voting process.

THE INTERNET & DEMOCRACY PROJECT

This case study is part of a series of studies produced by the Internet & Democracy Project, a research initiative at the Berkman Center for Internet & Society at Harvard University, which investigates the impact of the Internet on civic engagement and democratic processes. More information on the Internet & Democracy Project can be found at: <http://blogs.law.harvard.edu/idblog/>.

The project's initial case studies focused on three of the most frequently cited examples of the Internet's influence on democracy. The first case looked at the user-generated news site OhmyNews and its impact on the 2002 elections in South Korea. The second documented the role of technology in Ukraine's Orange Revolution. The third analyzed the network composition and content of the Iranian blogosphere. Fall 2008 saw the release of a new series of case studies, which broadened the scope of our research and examined some less well-known parts of the research landscape. In a pair of studies, we reviewed the role of networked technologies in the 2007 civic crises of Burma's Saffron Revolution and Kenya's post-election turmoil. Urs Gasser's three-part work will examine the role of technology in Swiss democracy. Another case study, set for publication in spring 2009, will expand our study of foreign blogs with an analysis of the Arabic language blogosphere. The authors wish to thank Anja-Lea Fischer and Sandra Cortesi for research assistance, and Herbert Burkert, John Palfrey, Bruce Etling, and Tim Hwang for comments on the cases.

This set of case studies was produced in association with the Research Center for Information Law at the University of St. Gallen in Switzerland. The Center supports research initiatives to analyze and assess legal frameworks and provisions that are regulating the creation, distribution, access, and usage of information in economic, cultural, and political systems. It also works to explore the dynamic changes in information technologies and their impact on the legal system. More information about the Center is available online here: <http://www.fir.unisg.ch/>.

INTRODUCTION

Advanced democracies around the world struggle to prevent voter apathy, while at the same time ensuring that those who do vote are well informed in their choices. Switzerland has the added challenge, as a semi-direct democracy, of requiring voters to turn out for elections routinely in order for the system to function properly. The Smartvote Web site was created by a group of primarily university-based Swiss experts as a platform to better inform voters, to match voters with likeminded candidates through online questionnaires, and to hold elected officials accountable for promises made during election campaigns. This case study provides an in-depth look at the Smartvote site, its administrators and funding sources, and its growing—though predominately young and male—user base. This case also draws on political science and communications theory in an attempt to explain Smartvote’s potential impact on democratic processes, including increased transparency and accountability, higher voter turnout, and a more diverse political landscape. At the same time, the case study suggests that Smartvote’s reach will be limited if it cannot entice a more representative sample of Switzerland’s voting population to participate. Smartvote also has the potential to diminish the role of political parties due to its focus on individual candidates and issue specific campaigns.

DESCRIPTION OF THE PROJECT

General Overview

Smartvote is a project carried out by a diverse team of political scientists, computer scientists, economists, historians and others—largely affiliated with universities throughout Switzerland. Smartvote also stresses that it is independent from any political party or candidate.¹ However, as we note in further detail below, Smartvote does in fact accept money from candidates and political parties under certain circumstances. As part of the project, political candidates in both local and national elections are invited to answer a questionnaire designed to elicit the candidate’s political position on various issues. The project currently operates a Web site where users are also invited to fill out a questionnaire. Based upon the user’s answers to these questions, Smartvote determines which candidate within its database most closely matches the views the user has expressed. The Web site also provides graphical representations of each candidate’s political orientation.

The motivation behind the creation of Smartvote lay in the perception that the voting public in Switzerland suffered from a certain information deficit with respect to elections—particularly in light of the complexity of the Swiss system.² For any given election, the Swiss voter is presented with many candidates from several different parties. The Swiss voter may choose to vote for individual candidates or to select a certain party list. However, even within a single party, the views and positions of individual candidates can vary considerably. Yet, the founders of Smartvote felt that there was generally little information available about individual candidates and their positions before any given election.³ Thus, Smartvote was conceived to remedy this information deficiency.

Since its inception in 2003, participation in the Smartvote project on the part of political candidates has increased significantly. In 2003, only about 50% of candidates submitted their answers to the Smartvote questionnaire. In the most recent federal elections, however, 80-81% of candidates had submitted profiles to Smartvote shortly before Election Day.⁴ Figures also suggest that there has been an increase in the number of users of Smartvote. Usage statistics indicate that 255,000 voter recommendations were generated for the 2003 National Council elections.⁵ For the 2007 National Council Elections, however, over 700,000 recommendations were requested.⁶ It is important to recognize that these numbers do not represent the number of users who utilized the site since any one user may request more than one recommendation. This is discussed in further detail below.

Administrators and Funding

Smartvote is carried out under the auspices of the Politools Political Research Network, a Swiss Verein⁷ registered in the city of Berne.⁸ The organization was first formed in 2004, sometime after Smartvote’s premiere for the 2003 Swiss Federal Council elections.⁹ Politools describes itself as an “interdisciplinary, scholarly network” of several Internet-based projects.¹⁰ Currently, Daniel Schwarz and Jan Fivaz are listed as the acting President and Vice-President, respectively, of the Verein.¹¹ Additional projects listed on the Politools Web site are “parlarating” and “smartsurvey.”¹²

In terms of financing, Politools relies on contributions from various sources. Private contributions are accepted

online via the Politools Web site, where contributors can specify whether they want their contributions to go solely to the Smartvote project, another project, or whether the contribution is unconditional.¹³ According to their 2007 annual report, the majority of private donations were earmarked specifically for Smartvote by the donor.¹⁴ The annual report also indicates that Politools received funding from public entities and private foundations and organizations in the year 2007 for the purposes of making specific enhancements to the Smartvote platform including the incorporation of pages relating to additional regional elections.¹⁵ For instance, Smartvote received contributions from local lotteries in western and southern Switzerland as well as from the Chancellerie d'Etat of the Canton of Fribourg in exchange for developing Smartvote for local cantonal elections.¹⁶ Money was also received from the Gemeinnützige Gesellschaft Zürich, a non-profit organization, and Migros Kulturprozent, a cultural foundation, for the development of a version of Smartvote aimed at enhancing civic education. In addition, Politools receives commissions to undertake work on their behalf. According to Daniel Schwarz, Smartvote has thus far only received minor commissions, for example, the provision of analyses of party members on behalf of a party.¹⁷ With regard to Smartvote, the Smartvote Web site indicates that administrators ideally would like to see an even spread of income among the various sources: 25% from contributions from candidates and parties, 25% from income from partnerships with the media, 25% from contributions and donations from foundations, sponsors and private individuals, and the last 25% from the unpaid work of members of the project team.¹⁸ The annual report from 2007, however, indicates that the majority of income—over 200,000 Swiss Francs, representing over 60% of all income attributed to Smartvote—was received from “media partners.”¹⁹ According to Daniel Schwarz, these media partners—generally local newspapers and the like—are awarded certain rights in exchange for their payment—such as the right to include Smartvote on their Web pages or to print information obtained from Smartvote.²⁰ With respect to candidate contributions, Smartvote has tried out different pricing models. Sources indicate that initially parties were requested to submit a payment for the inclusion of their candidates in the Smartvote database in order to help cover project costs. More recent sources have indicated that the project has switched to permitting candidates to participate for free on condition that a payment of 350-

500 Swiss Francs is submitted for those candidates who are subsequently elected.²¹ For a time, payments were only requested on the basis of winning candidates in national elections, whereas local elections were financed solely through the contributions of media partners. As of 2008, however, Smartvote has begun requesting smaller contributions (generally around 100 Swiss Francs) for winning candidates in local elections as well.²² The annual report indicates that over 96,000 Swiss Francs was received from such candidates with respect to Nationalrat und Ständerat elections.²³ Lastly, a small amount of the organization's income comes from membership dues.²⁴

Features and Design

It is first important to note that the Web site is available in four languages: German, French, Italian, and English. Thus, the three major Swiss linguistic groups are represented in addition to English.²⁵ For the sake of convenience, we refer to the English version of the site in the descriptions provided below.

In an expository paper, Jan Fivaz and Daniel Schwarz describe Smartvote as consisting of three basic elements: “the smartvote module with the issue-matching system, a comprehensive database providing information on all candidates running for office, and an analysis module with elaborated analytical tools for visualization of political positions.”²⁶ The first of these elements involves two stages of public participation. First of all, whenever a party has registered a candidate list, all candidates on the list in the election in question receive a questionnaire from Smartvote by e-mail or letter.²⁷ This action takes place roughly three months prior to the election.²⁸ According to Daniel Schwarz, there is no fixed number of questions for each questionnaire. The drafters of the questionnaire aim to have at least 30-40 questions, however, in the case of national elections, the questionnaires have tended to have closer to 70 questions.²⁹ The candidates must select whether to answer each question “yes,” “no,” “probably,” or “probably not.”³⁰ Once the candidate has confirmed his or her answers, the answer set is saved in the Smartvote database.³¹

The second phase takes place roughly six weeks prior to Election Day.³² At this point, the aforementioned features of the Smartvote Web site are made available to the public.³³ These features, however, remain available for some

time even after the election has been completed. Upon arriving at the Smartvote site, users are prompted to select an available election that that user is interested in.³⁴ Once this selection has been made, the various elements of the site are accessible based upon the existing data for the election which the user has selected. The various features of the site are presented under different tabs. The issue-matching element is currently available via the “Smartvote” tab as well as via a link on the “Home” page. Upon clicking on this tab, users are invited to fill out the same questionnaire answered by candidates.³⁵ The answers to this questionnaire are then evaluated against the answers submitted by the various candidates in order to find the closest matches. Unlike the candidates, users are able to assign weight to their answers in order to indicate which issues are of most importance to them.³⁶ Additionally, users may choose to select “no answer” when filling out the questionnaire.³⁷ The site also provides additional explanations and information for most of the questions in order to assist users in their decisions—including pro and contra arguments for questions. After completing the questionnaire, users are then prompted to select their voting district and whether they would like to receive a recommendation for individual candidates or party lists.³⁸

Based on the user’s input, Smartvote produces a list of results in order of highest to lowest congruence with the user’s questionnaire answers. If the user has selected a recommendation for a party list, the data analysis is carried out on the basis of the mean value of the responses of all candidates on the appropriate list.³⁹ According to Schwarz and Fivaz, the matching system works by assigning “congruence values” to each question for each candidate. Where both the user and the candidate have the same answer for a particular question, the candidate will be assigned 100 “congruence points” for that question. On the other hand, where the user for instance answered a question with “yes” but the candidate answered the same question with “no,” the candidate will receive zero congruence points.⁴⁰ As for the answers in between “yes” and “no”—i.e. “probably”/ “probably not”—fewer congruence points are awarded where both the candidate and the user have given the same answer for a particular question. As Daniel Schwarz explains there are two reasons for this—both qualitative as well as mathematical. On the one hand, wherever such “in between” answers are given, that indicates that there is some set of considerations that the answerer considers

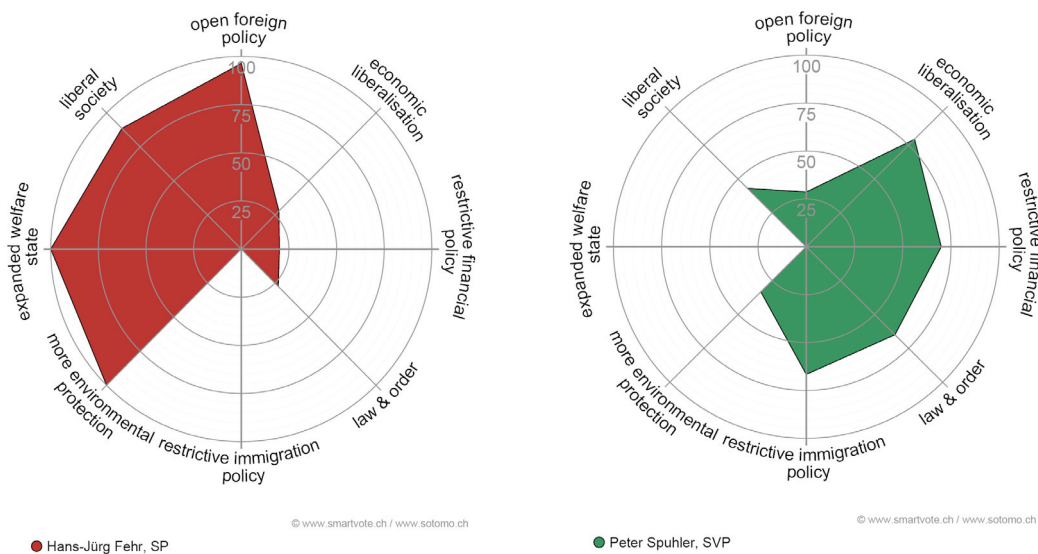
significant for that issue. Yet, the questionnaire format does not permit the assessment of what these considerations are.⁴¹ Thus, it is impossible to know to what extent these considerations are the same for both the candidate and the user or to what extent the candidate and user assign equal weight to those considerations even assuming they are the same in any given situation. Additionally, if the congruence of such in between answers were awarded the full amount of congruence points, there would be some probability that candidates could “rack up” points—i.e. be assigned more congruence with more users—by giving more of these in between answers to the items of the questionnaire.⁴²

The database feature of the Web site is organized by candidate profiles and party list profiles. The candidate profiles feature various pieces of personal and political information about the candidates which the candidates have submitted. Additionally, the candidates’ answers to the questionnaire may be accessed here, including any comments that candidates submitted for each of the questions. The party list profile contains an overview of the party list, a list of the candidates on that list with links to their candidate profiles, as well as answers to the questionnaire representing the mean value of the answers of all candidates on that list. Both the candidate and party list profiles also feature the Smartspider (described further below) for that candidate or for the list as a whole, respectively.

Lastly, there are the “visualization” elements of the Web site. The analytical elements consist of two features known as the “Smartspider” (*figure 1*) and “Smartmap” (*figure 2*) which represent a graphical representation of political orientation based upon the answers submitted to the questionnaires. The Smartspider is available under the database tab whereas the Smartmap is available under the tab marked “Analyses.”

The Smartspider consists of a graph charted on a circular field with eight axes. These axes are labeled “open foreign policy,” “economic liberalization,” “restrictive financial policy,” “law & order,” “restrictive immigration policy,” “more environmental protection,” “expanded welfare state,” and “liberal society.” The Smartspider is also based on the assignment of numerical values to each of the axes on the basis of the candidate’s questionnaire answers. Each individual answer may add or subtract a value from 0 to 100 for one or more particular axes.⁴⁴ As the Web site indicates,

Figure 1 - "Smatspider" example



however, not all of the questions are used to generate the Smartspider since not all questions will correspond to one of the issues represented by the eight axes. Thus, the Web site administrators characterize the Smartspider as a “simplified partial analysis.”⁴⁵

With regard to the meaning of the eight axes, the administrators provide a document containing bullet-points of the kinds of political positions which are considered significant for each axis. For instance, under “open foreign policy,” the following bullet-points are listed:

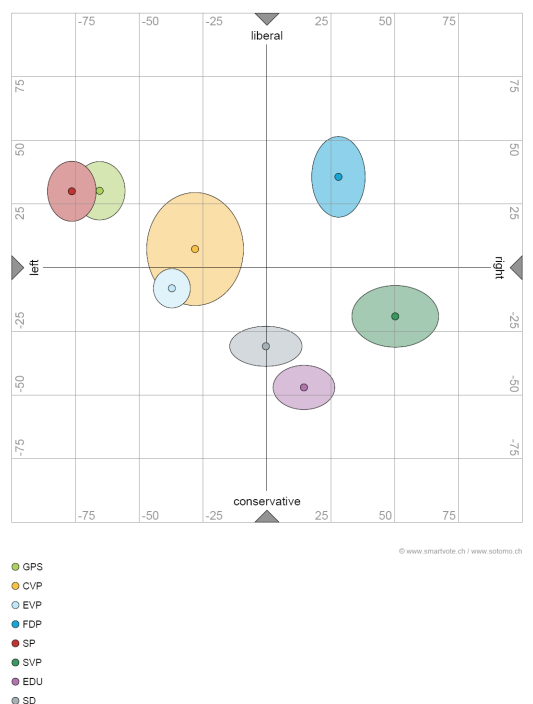
- Attitude toward EU and bilateral agreements between Switzerland and the EU;
- Attitude toward international organizations and conventions;
- Attitude toward engagement with the developing world;
- Attitude toward foreign engagement of the military (including international cooperation with other military forces).⁴⁶

The other graphical element is the “Smartmap.” This feature charts each candidate on a two-dimensional field. The horizontal axis represents a span from left to right political leanings. The vertical axis represents a span between “liberal” and “conservative.” The administrators indicate that the concept is based on a model developed by Michael Hermann and Heiri Leuthold.⁴⁷ The calculation of the

values for each axis is carried out in a similar fashion as that utilized with the Smartspider involving values between 0 and 100 based on the answers submitted to the questionnaire.⁴⁸ The end-values are then adjusted for the actual scale used on the Smartmap graph.⁴⁹ Since a value is obtained for each of the two axes, these coordinates allow each candidate to be mapped as a point between left and right, liberal and conservative. Additionally, users may simply view the numerical values of candidates for the left-right axis as well as four other ratings on the Web page titled “Ratings.”

It is also worth mentioning that Smartvote offers users the possibility of creating their own user account. A user account allows the user to save the answers of the questionnaires and change them as often as he or she would like. This feature not only permits the user to memorialize his or her profile and voting recommendation for future reference, but also arguably better facilitates the ability to conduct research since the user will be able to more quickly test changes in the voting recommendation after altering a few answers. Additionally, registered users are offered the opportunity to sign up to receive an email as soon as a new election is registered on Smartvote. Thus, this feature provides potential voters with a reminder of upcoming polls as well as of the availability of Smartvote as a political information source. According to Jan Fivaz, Smartvote had around 100,000 registered users as of August 21, 2008.

figure 2 - "Smartmap" example



Usage

The Smartvote administrators have published their own data concerning usage of the site both on the part of candidates as well as among voters. On the national level, Smartvote registers a marked increase in the percentage of candidates who submitted a candidate questionnaire between the 2003 and 2007 elections for the national council. According to Smartvote's figures, slightly over half of all candidates in the 2003 election turned in completed questionnaires, whereas for the 2007 elections, there were slightly over 85% submitted questionnaires.⁵⁰ As for participation for local cantonal and municipal elections, the percentage of candidates who establish a profile on Smartvote in various elections between 2004 and 2007 has also always been over 50% with 50.4% at the low end of the scale for city elections in Winterthur in 2006 and 80.6% at the high end of the scale for city elections in St. Gallen in 2004.⁵¹ Unfortunately, figures are still lacking to provide a historical view of participation for any one canton or city.

As for users, the Smartvote Web site reportedly was requested to generate roughly 250,000 voting recommendations for the 2003 national elections.⁵² For the 2007 elections, however, this figure rose to 964,000.⁵³ These figures, however, cannot provide an exact indication of the number of users who utilized the site since any one user could

have—and the Smartvote administrators contend that server traffic data suggests that most users did indeed—used the site to generate more than one voting recommendation. As Daniel Schwarz explains, the administrators keep a tally of how many times the “voting recommendation” button on the site is clicked. Where a single user requests numerous voting recommendations in a single session, only the first click will be counted. However, if that user leaves the site and returns later, a request for a voting recommendation during this second session will be counted.⁵⁴ The administrators estimate that each user requested an average of 2-4 recommendations.⁵⁵ Thus to obtain an estimate, the administrators divide the total number of clicks counted by three. Schwarz maintains that data from Selects.ch supports the supposition that this figure provides an accurate reflection of the number of users who use the site for any given election.⁵⁶ If this estimation is accurate, the figures would nonetheless indicate a significant increase in the number of users who used the site to obtain voting recommendations.

IMPACT ASSESSMENT

Background

Voting and the Role of Information

Classical democratic political theory has held that an informed, engaged, active citizen is essential for the proper functioning of democracy.⁵⁷ A long tradition of US-based studies, however, has shown that only a small fraction of the population within democratic countries may be said to fulfill this ideal.⁵⁸ Yet, more recently, a number of scholars have challenged this assumption. Some have suggested that voters in fact need very little information to vote “competently.”⁵⁹ Relying on empirical studies, several of such scholars argue that voters rely on heuristics or “shortcut devices” in order to arrive at a decision at election time.⁶⁰ For instance, based on the results of a 1997 study, Lau and Redlawsk estimate that generally about 75% of voters vote “correctly”—that is, they choose the candidate most in line with their own political views.⁶¹ Their study attempted to replicate the information overload that voters experience during campaign season before casting their vote in a fictional primary. The investigators then applied both a “subjective” and “objective” measurement of correctness in voting. The subjective measure involved an ex post reassessment of the voter's choice on the part of the voter him or herself. The objective test on the other hand involved

the examiners' determination of how the voter should cast their vote based on each voter's own declarations of political preferences in conjunction with the campaign information to which those voters were exposed.

However, Lau and Redlawsk as well as Georg Lutz have subsequently found that voters differ in their ability to make use of heuristic devices.⁶² Lau and Redlawsk found that heuristic devices tended to aid the "accuracy" of voting with respect to more sophisticated voters. With respect to less sophisticated voters, however, they saw a debilitating effect on accuracy correlated with the use of heuristic devices. Lutz has argued that voters are often unable to make use of heuristic devices because they lack essential background knowledge. Thus, in essence, studies demonstrating the use of heuristic devices on the part of voters are generally unreliable since they often supply the test subjects with information and therefore do not replicate real world situations where often both the information as well as shortcut devices are lacking.⁶³ Lutz also found that it is precisely the better informed who tend to utilize heuristics.⁶⁴ Thus, Lutz has contended that lack of information does indeed represent a problem for democracy since uninformed voters generally do not replace their lack of information through other sources and therefore make less qualified decisions.⁶⁵

First and foremost, Smartvote is an information resource aimed at remedying information deficit and permitting citizens to make an informed decision in political elections. Underlying the supposition that tools such as Smartvote may assist voters in decision-making is the question concerning the extent to which the acquisition of information through sites such as Smartvote may play a role in opinion formation. Lazarsfeld, Berelson, and Gaudet's seminal 1944 study with respect to election behavior suggested that social groups—including the family—play a much larger role than media in the formation of political opinions.⁶⁶ Information received from the media, for example, is then subject to a kind of filter which results in the disregard of information or opinions not in keeping with the group's positions.⁶⁷ Nonetheless, despite the largely self-reinforcing group-dynamic that exists in like-minded social groups, these authors noted that changes in opinion do occur. The authors opined that the recessive retention of other ideas and opinions played a role in such changes.⁶⁸ Thus, media, including sites such as Smartvote, could play a role in the creation of such impressions which subsequently lead to a change of opinion.

A number of factors, however, must be considered together with the Berelson study. Perhaps, first and foremost is the fact that the study was conducted in the United States and may not provide any insight into the situation in Switzerland. In particular, the traditionally two-party system for federal elections may have implications for the role of social groups in political opinion formation which would not hold true in the more diverse, multi-party setting of Switzerland. Additionally, the date of the study should be kept in mind. The sociological environment of the United States has no doubt changed substantially since 1944. Thus, it is unclear to what extent the findings of the study may still hold true today, assuming they provided accurate conclusions to begin with.

Although the findings of Lazarsfeld, Berelson, and Gaudet concerning the relative unimportance of media in political opinion formation have continued to resonate over the years, another strand of research has focused on the more subtle role which media can play.⁶⁹ McCombs and Shaw were perhaps the first researchers to explicitly suggest that the media could have an "agenda-setting" function based upon the findings of prior studies in addition to their own empirical study involving voters in Chapel Hill, North Carolina in the context of the 1968 presidential election. In their study, McCombs and Shaw discovered that there was a high level of correspondence between what Chapel Hill voters expressed to be the important issues in the election and what issues received coverage in the media that were generally available to those voters.⁷⁰ In one set of experiments testing the agenda-setting hypothesis, researchers demonstrated that individuals would alter their perception of the relative significance of a particular issue after being exposed to news stories concerning that issue.⁷¹

In the German-speaking world, Noelle-Neumann developed the "spiral of silence" theory. According to this theory, individuals tend to react in one of two ways when confronted with opinions that do not conform with their own opinions: either the individual changes their opinion or reacts with silence.⁷² In this way, opinions which are openly expressed and are perceived to have majority acceptance tend to become perpetuated since interpersonal communication does not challenge those opinions. The media may have the role of reflecting general public opinion, but this may not always be the case since personal observations also play a role in the formation of public opinion and may diverge from the images presented in the media.⁷³

Noelle-Neumann seems to accept that the media may have an agenda-setting function but she also recognizes that the media provide individuals in the majority with means for articulating majority views—in the absence of public debate, individuals are often at a loss for how to express the issues at stake or the reasons for supporting the majority view.⁷⁴

The theory of Michael Schenk, on the other hand, is much more in line with the original conclusions of Lazarsfeld. On the basis of a study involving public opinion concerning various issues in connection with the German reunification, Schenk argues that opinion formation takes place largely in social networks through personal communication exchanges. The mass media serves to provide basic packets of information which is then discussed and processed within network circles.⁷⁵ In other words, social networks provide the breeding ground for public opinion.⁷⁶

In addition to alternative theories concerning the role of the media in political opinion formation, the date of the Lazarsfeld study indicates that it was conducted several decades before the emergence of the Internet. Even prior to the widespread use of the Internet, the reception of traditional media on the part of US audiences may have changed over time, and thus the role of such media in political opinion formation may have also changed. At any rate, Web sites such as Smartvote represent a much different form of medium than television, radio and newspapers. Whereas the consumption of non-election-related materials featured in traditional media will generally lead to unintended exposure to campaign-related advertisements and the like, Internet users must actively seek out the Smartvote site. Thus, Smartvote users will generally be deliberately looking for political information which will not always be the case with individuals who turn on the television or radio or pick up the morning paper. Additionally, although it is possible to use the Smartvote site in a relatively passive manner, the questionnaire feature invites users to reflect on certain current political issues and interact with the site.

Turning away from more theoretical explanations of the role of media in political opinion formation, empirical observation of Internet usage with respect to political information may provide some insight into the Internet's

current role. Extensive data with respect to Internet-usage in Switzerland specifically concerning the consumption of political information is not currently available. The research institute, gfs.bern, however, has published survey results pertaining to media usage in connection with referenda and initiatives in Switzerland as part of its "VOX" series of political research. These results indicate that use of the Internet for political information has generally been growing: only 5% of respondents said they had referred to Internet communications for pro and contra opinions concerning upcoming referenda or initiatives in March of 2000, whereas in June of 2008, this number had grown to 15%.⁷⁷ These figures, however, still lag significantly behind those for use of traditional media: for the June 2008 decision, 85% of respondents indicated that they referred to articles in print media, 74% relied on television, and 58% relied on radio broadcasts.⁷⁸

In the United States, data from the Pew Internet & American Life Project were culled between 1992 and 2006 with respect to what individuals thought were their primary sources of obtaining election news. Beginning in 1996, 3% of respondents indicated that the Internet was one of two main sources of election news.⁷⁹ In 2006, this figure stood at 15%.⁸⁰ These percentages, however, were higher during presidential election years, standing at 11% in 2000 and reaching a high of 18% in 2004.⁸¹ More generally, these studies indicated that 25% of respondents referred to the Internet for political information during election time in 2006,⁸² whereas usage registered slightly higher in the 2004 surveys at 29%.⁸³

Perhaps one of the most significant conclusions drawn by the Pew research team was that Internet use exposed individuals to diverse views pertaining to political issues. In a 2004 report, the Pew project found that Internet users were generally exposed to more arguments concerning both presidential candidates with respect to the 2004 election. This was found to be the case even after researchers had controlled for greater interest in the campaign.⁸⁴ The report's authors thus opined that the evidence refuted common fears that Internet users would avoid viewpoints opposed to their own.⁸⁵ The Pew studies also determined that about 7% of the U.S. population (11% of all U.S. Internet users) had gotten actively involved in the creation or distribution of political information by posting their own

commentary on a Web site, posting or forwarding someone else's political commentary, creating political audio or video or recordings, or forwarding or posting someone else's political audio or video recording.⁸⁶

On the one hand, as reported in these studies, the usage rates in the United States are higher overall than those in Switzerland, as we might expect. On the other hand, usage patterns in Switzerland may be significantly different with respect to "candidatorial" elections as opposed to initiatives and referenda. Using Smartvote's usage figures, however, we may obtain some sense of what percentage of eligible voters are referring to Smartvote, specifically. Smartvote estimates that approximately 321,000 users utilized the recommendation feature for the 2007 elections.⁸⁷ According to the Swiss Federal Statistics Office, there were 4,915,563 eligible Swiss voters that year.⁸⁸ Thus, the estimated number of users of the Smartvote recommendation system represents about 6.5% of all eligible voters. Of course, not all users of the system may have been eligible to vote in Swiss elections, so the actual percentage of eligible voters who used the system is probably slightly smaller.

The conclusions that may be drawn are that reliance on the Internet as medium with respect to political information is still much smaller than traditional media in both the United States and Switzerland. Figures from the United States suggest that the relative weight which individuals place on the Internet as a source of political information may be increasing, but it is unclear whether the number of individuals who refer to the Internet at all for political information continues to grow significantly.

Information and Participation

A second question is whether Smartvote might also address the turnout problem. In other words, one might conjecture that by easing the burden of information-gathering and the decision-making process generally, more voters would be willing to participate in elections. Palfrey and Poole, for instance, have argued that even voters with relatively strong positions on political issues will suffer from indifference if they lack information about the candidates up for election.⁸⁹ Yet, these authors also found a strong correlation between polarized political views and the level of "informedness" of voters. This correlation may suggest that those voters with the most strongly held political views are more likely to inform themselves on the issues and candi-

dates for any one election.⁹⁰ On the other hand, it could suggest that the process of information-gathering may lead to the formation of stronger opinions with respect to those issues and candidates. The direction of causation would prove quite significant: according to figures from a Swiss study cited by Georg Lutz, only 14% of eligible voters who do not turn out do so because they lack "competence."⁹¹ The largest group of non-voters identified in that study, one third of all non-participants, did not participate simply due to lack of interest.⁹³ Thus, as a political information source, Smartvote might hold the promise of reducing the 14% who do not vote due to the fact that they feel unable to make a decision. If information-gathering also serves to dispel indifference, however, a site such as Smartvote might also hold the promise of prompting additional participation from the 33% who generally do not vote due to lack of interest. Yet, the question would remain as to how such individuals would be motivated to refer to Smartvote to begin with.

Transparency-Related Effects

Through its utilization of candidate profiles, Smartvote renders candidates more transparent with respect to their positions on various issues. For this reason, Jeitziner speculated that some or many candidates would not want to establish Smartvote profiles in order to avoid the risk of exposing conflicts of interest with particular voter segments, avoid binding themselves during their term in office to campaign statements, or because they do not have clear political positions on all the issues.⁹⁴ Nonetheless, the exposure which Smartvote affords might represent an advantage that only certain types of candidates—such as long-term incumbents—could ignore.⁹⁵

As Jeitziner also points out, Smartvote could offer the possibility to monitor candidates' behavior against the statements and indications of interest that they had registered with Smartvote. This enhanced monitoring would not only benefit voters but could also be used by other political candidates as a means of discrediting opponents.⁹⁶ This increased ease of evaluating officials against their campaign behavior could have the effect of producing more consistency between positions established at campaign time and subsequent behavior while in office. In order to ensure reelection, politicians might be prompted to ensure that their actions as elected officials are always in keeping with their campaign profiles. One potential negative consequence

might stem from the overly simple formulations of questionnaire questions. For instance, the complexity of legislative proposals might prompt a legislator to reject a particular proposal which overall represents a stance with which that candidate agrees. Thus, an initial glance would suggest that the legislator's rejection of the proposal contradicts his or her earlier position. The desire to avoid the appearance of such disingenuousness could therefore interfere with the legislator's desired voting practices. However, currently the promise of carrying out such monitoring is not fully realized since Smartvote does not preserve candidate profiles for the public after the advent of a new election.

We can also imagine some of the possible consequences on voter behavior which this greater transparency will have. The focus on issue positions of candidates, for instance, may shift greater focus to primary political issues as opposed to valence issues, such as candidate trustworthiness or competence. Without a detailed understanding of issue positions, voters most likely were left to rely on personal characteristics, media presence, reputational factors, and party affiliation. The Smartvote portal, however, largely deemphasizes these considerations, and some are not present in any form whatsoever.

Another issue is whether use of Smartvote will enhance voting quality—in other words, help to ensure that more voters vote “correctly” (to borrow an expression from Lau and Redlawsk). Above, we briefly discussed the role of information acquisition and gathering in the voter decision-making process. Perhaps the best way to measure whether Smartvote improves voting quality is to determine whether there are Smartvote users who voted differently as a result of using Smartvote than they would have without using Smartvote. Although the question is highly subjective and hypothetical, some empirical data is available to suggest some answers. Additionally, we must also assume that no voters were falsely led astray by Smartvote. NCCR Democracy conducted a survey among 661 voters who participated in the 2006 elections for the Bernese Grand Council—the legislative body for the Canton of Berne. There, over 15% of respondents indicated that their use of Smartvote caused them to question their own position.⁹⁷ Over 33% of respondents indicated that they had cast votes for parties for which they normally do not vote.⁹⁸ Additionally, slightly over 9% indicated that they did not vote for their usual party.⁹⁹ These figures suggest that

Smartvote prompted at least some voters to reconsider whether their usual mode of party voting best matched their positions on various issues.

Yet another issue is whether Smartvote will lead to significant changes in voting habits overall. Due to the focus on candidates which smartvote brings, some have speculated that the tool might lead to less party loyalty and increased ticket-splitting.¹⁰⁰ The data from the Bernese Grand Council elections provide some support for these hypotheses. As stated above, more than a third of the survey respondents indicated that they had voted for parties for which they had never voted before, and close to 10% did not vote for their usual party. In addition, over 30% indicated that they had split more of their votes among different parties.¹⁰¹ Thus, these figures provide some suggestion that new trends in voting practices will emerge through the influence of Smartvote; however, more extensive data is needed in order to confirm and ascertain the extent of such effects, particularly with reference to the entire voting public as opposed to among Smartvote users alone.¹⁰²

Smartvote could have various consequences for political parties in Switzerland. The greater focus on individual candidates may mean that parties lose importance in the eyes of the average voter. Thus, parties may lose the ability to set the agenda of election campaigns.¹⁰³ The parties' loss of significance may also raise legal issues as Bernhard Rütsche points out. Article 137 of the Swiss Constitution guarantees that political parties may contribute to the shaping of public opinion and policy agendas. A number of cantonal constitutions also contain similar provisions.¹⁰⁴ In light of the proportional representative form of government and the formation of coalitions which the constitution foresees, the legislative function within Switzerland is designed to be shaped by parties.¹⁰⁵

Jeitziner speculates that Smartvote could lead to the formation of more parties and thus greater segmentation of the voting public.¹⁰⁶ Greater diversity within the Parliament would mean that the ability to form coalitions would be negatively affected, Jeitziner argues. This, in turn, would impair the legislative process and entail that the passage of new laws and legislative reform would become more difficult.¹⁰⁷ The greater transparency that Smartvote affords might give rise to the formation of ad hoc political parties.¹⁰⁸ For instance, the use of Smartvote profiles could

reveal the public resonance surrounding a single issue, permitting parties to form around that one issue. Such an issue-centric political environment would undermine the role of parties in integrating and aggregating diverse interests. Thus, these functions, Jeitziner postulates, would then have to take place within the parliamentary setting rather than within the parties.¹⁰⁹ Another possible development is that Smartvote would permit more individuals to run without party affiliation, leading to greater diversity in the candidate pool.¹¹⁰

Jeitziner also speculates that sites such as Smartvote could potentially result in changes to the political system in general in Switzerland. For instance, the achievement of greater efficiency on the part of the political process might make governmental options more attractive vis-à-vis market alternatives. Such a situation could lead to a shift towards more government activity overall.¹¹¹ On the other hand, greater efficiencies could lead to a reduction of the apparatus of the state.¹¹² Jeitziner also contends that services such as Smartvote could call into question the continued need for the division of the country into relatively small voting districts. According to Jeitziner, the principle argument in favor of the current system—the voter’s limited capacity for information processing—might be eliminated by the availability of services such as Smartvote.¹¹³ Thus, Jeitziner envisions that the process may even be reduced to a single election district for the national council elections.¹¹⁴ Informational issues have also justified the rejection of the popular election of the Federal Council. Thus, Jeitziner also contends that by eliminating this argument, Smartvote might help to introduce popular election of these officials rather than relying on appointment by the parliament.¹¹⁵

Impact on Voter Participation

Whether Smartvote has had an impact on voter turnout is difficult to assess. According to Swiss federal government statistics, the number of votes cast in the 2003 and 2007 National Council elections progressively increased in relation to the number of votes cast in the 1999 national council elections—the elections immediately preceding the debut of Smartvote.¹¹⁶ More importantly, these figures also represent a progressive increase in the participation of the percentage of eligible voters. This growth trend, however, may be observed since the 1995 elections.¹¹⁷ On the cantonal level, it may be worth noting differences in the rate of increase in turnout among different cantons. The

cantons of St. Gallen and Thurgau, for instance, were the first cantons for which the Smartvote platform became available for local elections. In both instances, Smartvote was available for the respective 2004 elections in each canton. One might therefore speculate that voter exposure to the Smartvote platform was greater in those cantons than in the Canton of Lucerne, for instance, where Smartvote first became available for local elections in 2006. Although all three cantons show an increase in the percentage of eligible voters who cast ballots between the 2003 and 2007 national council elections, both St. Gallen and Thurgau show a greater increase in voter turnout than the Canton of Lucerne.¹¹⁸ Nonetheless, it is impossible to determine to what if any extent Smartvote played a role in this difference. It is worth noting, however, that the National Centre of Competence in Research is currently carrying out additional research which may shed additional light on this question.¹¹⁹

Parts of the data and findings that will go into this study are currently available in a conference paper from Jan Fivaz. Fivaz notes that current Smartvote user demographics are almost diametrically opposed to the typical demographics of Swiss non-voters: Smartvote users tend to be relatively young, male, well-educated and earn higher than average levels of income. Typical non-voters in Switzerland, however, tend to also be young but female, and have low to average levels of education and income.¹²⁰ Thus, Fivaz acknowledges that Smartvote does not seem likely to boost voter turnout significantly since it appeals to the wrong target group.¹²¹ On the other hand, survey results of Smartvote users revealed that 39% of users felt that using Smartvote had some positive effect on their motivation to vote.¹²² Fivaz finds it particularly encouraging that the percentage of users who indicated this positive effect was particularly high among women and younger voters.¹²³ Nonetheless, more comprehensive data spanning a longer period of time will be needed in order to draw a reliable conclusion as to Smartvote’s impact on voter turnout.

In the United States, the impact of voter information guides was examined in the context of judicial elections in the State of North Carolina. In 2004, North Carolina began the distribution of written materials which contained brief biographies of judicial candidates in addition to the candidates’ own personal statement.¹²⁴ The North Carolina Center for Voter Education conducted a series of

exit polls for the 2004 elections in the Research Triangle area in which, among other issues, the question of whether the guides might boost voter participation played a central role. Three sets of surveys were conducted at six different polling locations. Within each set, voter guides were distributed to incoming voters at one site, whereas at the other site, no guides were distributed. Since the guides had been distributed to the public in the mail prior to the elections, those voters who appeared at the sites where no guides were distributed may still have referred to the guides before polling. Nonetheless, the results of the exit polls showed remarkable divergences between the group of voters who received the guide going in to the polls and those who did not.¹²⁵

When asked what the primary source of information for judicial elections was, the largest plurality among individuals who received the guide responded that the voter guide was the primary source (38%). In contrast, among respondents who did not receive the guide, newspapers (27%) and television news (23%) were referred to as primary sources; only 11% of these individuals indicated that the voter guide was their primary source of information.¹²⁶ As for voter participation, the pollsters found some evidence that the provision of the guides helped to increase participation in the judicial elections. A slightly higher percentage of individuals who cast votes in the judicial election and had received the voter guide (22%) indicated that they generally do not register votes in judicial elections. Among African-Americans within this group, the percentage was even higher at 32%. In contrast, within the group that had not received the guide, the percentage of voters who indicated that they normally do not cast ballots for judicial elections was only 11%.¹²⁷ Based on these findings, Scott Crosson speculates that a certain percentage of voters who normally vote will often skip over the section of the ballot concerning the election of judges due to a lack of information on the candidates. The provision of the voter guide may prompt these voters to also cast their votes for judicial offices since they would have information on which to base their decision.¹²⁸

The presentation of too much information, however, may harm voter participation. A study conducted by Sheena Iyengar and Wei Jiang, for instance, revealed that participation in private retirement savings programs among employees would drop 2% for every 10 options that the employer

made available to the plan.¹²⁹ Even those employees who recognized that failure to participate would not be in their best interest tended to make poor decisions with respect to plan options as the number of options increased.¹³⁰ These findings suggest that information overload can result both in lower voter turnout and impaired decision-making—or “incorrect” voting—among those who do turn out.

With the harmful effects of information overload in mind, we may ask whether Smartvote may also cause or contribute to information overload at election time. Considering that the Smartvote database for any one election may contain well over a hundred candidate profiles, including as many as 70 questionnaire responses for each candidate, the prospect of gathering and processing all of this information manually on the part of an individual voter presents a daunting task. Yet, the fact that all of this information is aggregated in one place means that the site provides a distinct advantage over information gathering and processing in reliance on traditional media alone.¹³¹ Lau and Redlawsk have characterized the U.S. election campaign environment as an information overload scenario. Thus, in their experiments, they have aimed to recreate the campaign environment by bombarding subjects with political advertisements within a short period of time in addition to subjecting them to occasional interruptions to tax their attention spans and information processing capabilities.¹³² Although elections in Switzerland probably feature a significantly smaller media blitz than in the United States, the number of candidates and parties involved adds a different element of complexity to the vote decision-making process. The Smartvote site is primarily designed to provide a tool for combating information overload and we believe its promise in this regard will generally eclipse any potential for information overload. The voting recommendation feature of the site initially focuses users’ attention on the issues rather than candidates and then essentially presents them with a limited number of candidates for whom the user should have the most interest based on his or her stance on the issues. Thus, there is more danger that Smartvote will oversimplify the decision-making process—essentially creating a short circuit between issue evaluation and candidate selection—rather than encumber the decision-making process with information overload.¹³³

Lastly, we turn to the implication of user demographics for voter participation. Smartvote’s own survey findings

indicate that the majority of users are male (66.5%) and under the age of 40 (62.2%).¹³⁴ And the largest percentage of users (39.4%) is between 18-29.¹³⁵ Thus, the typical Smartvote user represents a different demographic group than the average voter from the general Swiss voting population who would tend to be female (52.9% of the eligible voting population) and between the ages of 50-65 (25.5% of the eligible voting population).¹³⁶ The effects of Smartvote may therefore have an inordinate impact on a relatively marginal portion of the voting population. To the extent that Smartvote could enhance voter participation, it would likely have a greater effect among young male voters—at least in the short term.¹³⁷

Accountability-Related Effects

The greater transparency afforded by Smartvote can in turn lead to greater accountability for political officials, as we discussed above in Section 2.2. Another issue concerns the so-called “free mandate” which Swiss politicians are said to enjoy. This principle is derived from Article 161 of the Swiss Constitution which provides that members of the federal parliament shall be free from the receipt of directions on how to cast their votes and must disclose their ties to private interests. The first of these provisions, also known as the “Prohibition against Instructions”¹³⁸ has traditionally been interpreted as providing parliamentarians with the freedom to cast their own votes as they best see fit regardless of the interest of their own party or supporters. As mentioned above, Smartvote may focus more attention on politicians’ previously expressed stances on certain issues and allow the public to compare those expressions with actual legislative voting behavior. The increased ability to hold politicians accountable for their positions on issues as expressed during election campaigns could bring an end to the concept of the absolute free mandate. The constitution would continue to ensure that members of parliament would not be subject to legal sanctions for failing to tow the party line;¹³⁹ however, they might be exposed to increased pressure from the voting public to ensure that their voting record conforms with their stances as recorded in Smartvote questionnaires.

DESIGN-RELATED QUESTIONS

Here, we discuss planned and possible future developments for the Smartvote platform as well as a design-related critique.

Future Developments

Developments that are currently underway include the development of a site based on Smartvote for the European Union. Smartvote is providing technology and know-how as a consultant to the project. Additionally, the team is developing a site called “Smartmonitor” which will provide analysis of the voting practices of members of the Swiss Parliament. Lastly, Smartvote also plans to test out the provision of a weblog in combination with the Smartvote platform for a local election. Jan Fivaz and Daniel Schwarz explain that the team is often trying to think of ways of making the site more interactive and this initiative represents one trial towards the achievement of this goal. Fivaz and Schwarz, however, are cognizant of the potential problems associated with administering a blog, such as monitoring costs and the risk that the—on the one hand desirable—level of openness could undermine the informational purposes of the site.¹⁴⁰

Fivaz and Schwarz indicate that several ideas for future changes and enhancements of Smartvote are currently being considered by the project team. One such idea is the implementation of certain filters which users could apply to voting recommendations in order to remove certain candidates on the basis of a certain criterion. For instance, some voters might insist on only voting for women candidates; thus the idea is that these voters would be able to filter out all the male candidates from their voting recommendations so that they would be left with a recommendation that they could then transfer to their ballot.¹⁴¹

In order to make the transfer of the recommendation to the ballot as simple as possible, Smartvote is also considering providing a virtual ballot which would import candidates from the user’s final recommendation. The user would then only need to print out the ballot, sign it, and drop it in the mail. Fivaz and Schwarz see this potential development as a less controversial intermediate step toward linking Smartvote with an e-voting system.¹⁴²

Additionally, the Smartvote team is considering making changes to the Smartspider in order to keep the graphic interesting for continuing users over time. Smartvote is also interested in expanding the project to include as many local elections as possible.

Another idea under consideration is the development of a site aimed at assisting voters for referenda. Such a site may

bear the title “Smartinfo.” Currently, Schwarz and Fivaz envision that the site would likely have a kind of aggregator role by providing one space where voters could see diverse opinions and information relating to the pros and cons of a particular referendum question. The site might provide links that reveal how individual parliamentarians voted on the initial legislative bill. In this way, voters could see whether like-minded legislators were for or against the measure. Another possibility is that the site would allow users to rate the various arguments presented by political parties and interest groups.

As we have mentioned above, Smartvote has assisted in the development of voting assistance sites in other countries. Fivaz and Schwarz indicate that Smartvote is open to providing assistance for other countries. However, the task requires the presence of a local partner to host the site and do much of the implementation work; Smartvote merely provides the know-how. Thus, although Smartvote constantly receives requests to set up similar sites in other countries, interest in such a project generally seems to evaporate quickly. Fivaz and Schwarz suspect that many who are interested underestimate the amount of work involved. Additionally, past international projects do not appear to have taken root for the long term—a site set up for elections in Scotland was discontinued after its initial implementation, and another site in Bulgaria is also likely to fold.

As for potential developments, one issue is whether Smartvote might move away from its currently candidate-focused format. Above, we referenced a potential legal issue concerning the Swiss constitutional guarantee in favor of political party participation. Despite this issue, Bernhard Rüttsche is of the opinion that governmental intervention—either on the part of the federal government or cantonal governments—against Smartvote would not be permitted under Swiss law on these grounds.¹⁴³ Additionally, there seems little incentive for Smartvote to choose such an option, since its candidate focus is one of the distinctive features of the service when compared with similar sites both abroad (e.g. stemwijzer.nl, wahl-o-mat.de, wahlkabine.at) and in Switzerland (politarena.ch).¹⁴⁴

One of the most frequently cited proposals for the future expansion of Smartvote is the coupling of the service with e-voting.¹⁴⁵ One might conjecture that the combination

of the two would be particularly effective in raising voter turnout since the site would lower the transaction costs involved in both the candidate evaluation process as well as the actual act of casting votes. Rüttsche, however, sees the combination of the two services as problematic since it would involve government endorsement of a voting assistance tool. Rüttsche suggests that this action would go too far toward disturbing the constitutional guarantee afforded the political parties.¹⁴⁶ Additionally this prospect could raise concerns regarding the division between the private and public sphere: Should any and all present and future voting assistance sites be equally linked to the e-voting system? If Smartvote becomes the only site to be coupled with the voting system, would not governmental oversight of Smartvote be appropriate? Does the prospect of public oversight of Smartvote not raise conflict of interest issues concerning the involvement of incumbents in the voting process?

In this regard, it is particularly interesting to note the findings from the survey concerning the 2004 North Carolina judicial elections. Of those individuals who received the North Carolina voter guide upon entering the polls, a significantly larger percentage stated that the guide was their primary source of information. This fact suggests that information provided directly at the time of voting tends to take on inordinate importance in comparison with previously acquired information. Thus, one might expect that Smartvote recommendations would exert significant influence among e-voters who were also presented with the Smartvote Web site upon entering the e-voting site. Unlike the North Carolina voter guide, however, Smartvote is not published by the government.

The coupling of Smartvote with an e-voting system was also tested out in student elections at the University of Berne in 2005. The system that was set up for these elections allowed the Smartvote recommendation to be imported into the official ballot within the University’s e-voting site.¹⁴⁷ Even after importing the recommendation, the voter still had the possibility to edit and change the imported selections on the ballot before actually casting it.¹⁴⁸ The official voting site of the university also contained reference to the assistance that Smartvote offered.¹⁴⁹

Soon after the results of the elections had been published, three students lodged a complaint with the grievance

committee of the student body. According to Bernhard Rüttsche, the complaint consisted of the following claims: The implementation of Smartvote together with the e-voting system 1) was unauthorized due to the lack of a legal basis for the action; 2) violated the constitutional right of individuals to free political decision-making; 3) violated the candidates' right to equal opportunity since not all candidates had equal access to the submission of profile information to Smartvote; and 4) infringed the realization of representative elections as contemplated in applicable rules and regulations.¹⁵⁰

Both the complaint lodged with the grievance committee as well as a subsequent appeal to the Board of Education of the Canton of Berne were unsuccessful. Rüttsche, however, argues that neither proceeding adequately addressed all of the issues at stake. For instance, with respect to the first claim concerning the lack of legal authority for the combination of Smartvote with the official e-voting system, Rüttsche contends that the grievance committee merely concerned itself with the internal voting regulations of the student body and whether the university voting office or student council had to approve the procedure. The committee did not address the issue of whether the procedure was more generally authorized by law.¹⁵¹ The Board of Education, on the other hand, came to the conclusion that no legal authorization was required for the coupling of the voting system with a voting assistance tool.¹⁵² Additionally, with respect to the claim concerning voting freedom, neither appeals body examined whether Smartvote distorted or skewed the opinion formation process of voters or otherwise promoted a particular political disposition, according to Rüttsche.¹⁵³ Notably, the complaints did not come before a court of law, and therefore there is no precedent to indicate how the Swiss judicial system would handle similar complaints pertaining to the coupling of Smartvote with municipal, cantonal, or federal voting systems.

Another possible avenue for expansion of Smartvote would be to apply its technology to referendum campaigns. For instance, the questionnaire method could be designed to assess the voter's position concerning the issues at stake in a given referendum. The evaluation of the user's answers would provide a basis for generating a recommendation for whether the user should accept or reject the proposal. Additional possibilities include the development of tools

for generating online referenda including the gathering of signatures for such referenda.

Criticism and Critique of Smartvote

Criticism concerning Smartvote has often focused on the questionnaire. In the past, several politicians and political parties have criticized Smartvote for lack of neutrality. For example, the PdA party has suggested that Smartvote sometimes presents voters with suggestive questions which ultimately falsely aligns voters with neoliberal political parties.¹⁵⁴

Politician Felix Gutzwiller has also expressed dissatisfaction with the Smartvote analysis. With regard to his own profile, he felt misrepresented and argued that some important issues, such as stem cell research, have been left out of the questionnaire.¹⁵⁵ Additionally, the Zurich-based women's interest organization, the Zürcher Frauenzentrale, also approached the Smartvote administrators to ensure that issues related to equality of the sexes were included in Smartvote questionnaires.¹⁵⁶ Thus, there was at least initially a sense that these issues were not adequately or appropriately reflected in the questionnaires. As a result of such omissions, one might argue, Smartvote would not render an accurate analysis of politicians.

According to Daniel Schwarz, the Politools President, the questionnaire is drawn up largely through an internal process. Sometime before each election—about 5-6 months in the case of national elections, a group of economists and political scientists from the Politools membership holds a brainstorming session to flush out the most salient issues for the election in question.¹⁵⁷ The participants strive to make the questionnaire balanced and reflective of a wide range of issues.¹⁵⁸ In the case of cantonal elections, the questionnaire is generally also shared with the local media partner in order to elicit feedback; however, Schwarz maintains that Politools remains independent and is not compelled to incorporate the suggestions of media partners.¹⁵⁹

Despite the criticism, Politools' own survey of 650 candidates conducted after the April 2006 elections for the Bernese Grand Council indicated that a majority of around 542-548 respondents had a positive assessment of Smartvote.¹⁶⁰ For instance, 63.8% of these respondents rated Smartvote's ability to render a correct reflection of

political positions between 8-10 on a scale of 1-10.¹⁶¹ Out of 584 respondents, 71.3% rated the quality of the questionnaire between 8-10.¹⁶²

Nonetheless, one may question whether this rather closed process for the generation of the questionnaires might inevitably lead to the presence of certain biases. Certain issues might be left out which are of central importance for certain candidates as the examples involving the Frauenzentrale and Felix Gutzwiller suggest. Questions that are included might fail to distinguish between all the subtleties of a particular issue. For instance, when a question concerning whether same-sex couples should be allowed to adopt children was included in the questionnaire, candidates who were against such adoptions but who favored legitimizing same-sex partnerships received the same rating for the question with respect to the category “social liberalization” as those individuals who were against both adoptions and same-sex partnerships.¹⁶³ Additionally, the questions that are included in the questionnaire may be formulated in a leading or pointed manner. In the future, a possible solution might involve closer cooperation with politicians and voters in order to better integrate their opinions without sacrificing Smartvote’s neutrality. On the other hand, we may question the extent to which minority issues should be reflected in the questionnaire. In other words, should the questionnaire also include, for example, questions that address concerns among groups at the extreme ends of the political spectrum? The inclusion of such questions might overemphasize the importance of such issues within the relevant political landscape and could negatively affect the perception of Smartvote’s neutrality among both candidates and voters. Yet, it would also provide more revealing information concerning the candidates so that candidates who hold extreme positions would be more easily identified.

The maintenance of neutrality should be one of the main goals of Smartvote. In order to avoid the risks of manipulating opinion formation, Smartvote should be transparent regarding their sponsors, financing and methodology. Smartvote does apparently strive to be forthcoming with respect to financial contributions. Anonymous contributions are limited to a maximum value of 50 Swiss Francs, and Smartvote claims to disclose the source of all other contributions in its annual report.¹⁶⁴ Individual private

contributors who reveal their identities are also disclosed on the Smartvote Web site.¹⁶⁵ In addition, Smartvote provides descriptions of their methodology in matching candidates to voters and in generating the Smartvote and Smartspider.¹⁶⁶ Thus, these aspects of the service should theoretically be more or less verifiable even on the part of average users. Irrespective of the technical verification of Smartvote’s methodology, since the candidates’ responses are stored in the Smartvote database, users can also compare their own questionnaire answers with those of the candidate to whom they have been matched in order to corroborate the extent to which the two correspond with one another. Nonetheless, as we have noted above, there remains an issue of neutrality with respect to the process for composing the questionnaire.

CONCLUSION

We note with Lau and Redlawsk that “[v]oting is about information...”¹⁶⁷ Smartvote is designed to serve as an information tool to aid voters in deciding whom to vote for. By gathering candidate information in a database, the site can ease the information gathering process for the voting public. A central feature of the site is the candidate-matching system which relies on input from questionnaires. Particularly unique are the graphical features, the Smartspider and Smartmap, which Smartvote provides to render visual representations of political leanings.

An interesting feature of Smartvote is that the information the site contains is provided by and large by the candidates themselves. Nonetheless, by designing the questionnaire on which many of the functions of the site are based, Smartvote plays an important framing role in which both biases and oversimplification of issues will come into play. In this regard, Smartvote is surrounded by some of the same problems classically associated with intermediaries. Smartvote, for its part, attempts to address some of these problems by disclosing both methodology and financing. We note, however, that the project might benefit from a more open process with respect to the composition of the questionnaire. Other issues for Smartvote are the general lack of competing and alternative Web sites within Switzerland and Smartvote’s potential to short circuit rational deliberation on the part of voters. With regard to the first of these issues, Smartvote’s partnership with local and

national media outlets may give the project a particularly prominent status. Both issues point toward the overall issue of Smartvote's ability to influence the political process.

We have also discussed how Smartvote places more emphasis on individual candidates as opposed to parties. Party affiliation has traditionally been one of the primary cues which voters rely on when making voting decisions. By generating individual candidate profiles and matching users with individual candidates rather than parties, the significance of the party signal moves to the background and may even completely lose significance altogether. We have noted how this aspect of the service may result in marked changes in election outcomes and the political landscape in Switzerland generally.

As for the future of Smartvote, the coupling of the service with e-voting, although apparently quite popular, we find problematic due to the fact that it would involve bringing a private influence into the machinery of a public service. Additionally, as at least one commentator has discussed, the combination of the two may even violate the Swiss constitution. Whether Smartvote or a Smartvote-type service (e.g. Smartinfo) may also come to play a role in referenda remains to be seen. Despite the lack of multiple candidates and parties to choose from and the perhaps more limited set of issues at stake, referenda represent a much more complicated kind of decision as opposed to candidate selection. How Smartvote might alter its architecture to provide a referenda assistance tool is not entirely obvious, and reliance on a questionnaire type model might prove particularly contentious. As Jan Fivaz also points out, the questionnaire model would in many instances not be practicable since there would be too few issues at stake.¹⁶⁸ An aggregation model, on the other hand, although similar to traditional handling of referenda issues, might also fail to deliver the short-cut advantage that the Smartvote candidate selection tool offers.

We regard the Smartmonitor project positively since it could permit users to determine whether candidates actually support the positions they have declared in the Smartvote questionnaire after being elected to office. Such a monitoring system would make strategic answering more hazardous and increase accountability and the responsiveness of the candidates.¹⁶⁹ The design of the Smartmonitor site, however, would need to make both recent and past

Smartvote questionnaires available. Ideally, the site might even identify which questionnaire questions and responses are of relevance for any one legislative vote.

For the present, despite potential problems, Smartvote has the promise to increase transparency with regard to candidate issue stances. The realization of this promise in turn could lead to greater accountability for those candidates who are later elected into office. By easing voters' decision-making process and rendering the candidates' positions more visible, Smartvote may also improve voter turnout. In the short term, however, this effect may be limited primarily to young male voters. Lastly, Smartvote may also increase the diversity of the political landscape in Switzerland by giving more issues greater prominence and visibility. The focus on individual candidates and issues could even promote the creation of ad hoc single issue parties.

ENDNOTES

¹ Interview with Daniel Schwarz, June 27, 2008.

² Ibid.

³ Ibid.

⁴ Der gläserne Kandidat: Smartvote wird zu wichtiger Hilfe im Wahlkampf, NZZ Online, Sept. 27, 2007, http://www.nzz-online.ch/magazin/dossiers/smartvote_zwischenstand_ende_september_1.560985.html. But compare <http://www.smartvote.ch/pdw/facts.php?term=3> (85.3%). This latter figure probably represents the final percentage of candidates who had submitted profiles by Election Day.

⁵ Smartvote, smartvote – Benutzung und Feedback, Aug. 12, 2006, p. 5, available at <http://v3.bielertagblatt.ch/images/dossier/benutzungsstatistik.pdf>.

⁶ Wolf Ludwig, Wahlen 2007 im Internet, Medienheft, Oct. 19, 2007, p. 3.

⁷ See Art. 60 et seq. of the Swiss Civil Code.

⁸ See <http://www.politools.net/about.html>.

⁹ Interview with Daniel Schwarz, June 27, 2008.

¹⁰ See <http://www.politools.net/about.html>

¹¹ See <http://www.politools.net/network.html>.

¹² See <http://www.politools.net/parlating.html>, <http://www.politools.net/smart-survey.html>. Note that according to Jan Fivaz, smartsurvey has been discontinued.

¹³ See <http://www.politools.net/support.html>.

¹⁴ Politools, Tätigkeits- und Rechenschaftsbericht 2007 (March 2008), p. 8.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Interview with Daniel Schwarz, June 27, 2008.

¹⁸ http://www.smartvote.ch/side_menu/finances/financing.php?who=v.

¹⁹ Politools, Tätigkeits- und Rechenschaftsbericht 2007 (March 2008), p. 7; this percentage is based on a calculation that excludes from income whatever “virtual income” smartvote might receive in the form of voluntary labor.

²⁰ Interview with Daniel Schwarz, June 27, 2008.

²¹ Der gläserne Kandidat: Smartvote wird zu wichtiger Hilfe im Wahlkampf, NZZ Online, Sept. 27, 2007, http://www.nzz-online.ch/magazin/dossiers/smartvote_zwischenstand_ende_september_1.560985.html.

²² Interview with Daniel Schwarz, June 27, 2008; Statement of Daniel Schwarz, Aug. 21, 2008.

²³ Politools, Tätigkeits- und Rechenschaftsbericht 2007 (March 2008), p. 7.

²⁴ See *ibid.*, p. 11.

²⁵ Granted, not all features and entries are available in all languages. For instance, questionnaires for local elections have not been translated into English.

²⁶ Jan Fivaz & Daniel Schwarz, Nailing the Pudding to the Wall - E-Democracy as Catalyst for Transparency and Accountability, Paper presented at the International Conference on Direct Democracy in Latin America; 14-15 March 2007; Buenos Aires, Argentina, Feb. 8, 2007, p. 3.

²⁷ Interview with Daniel Schwarz, June 27, 2008.

²⁸ Jan Fivaz & Daniel Schwarz, Nailing the Pudding to the Wall - E-Democracy as Catalyst for Transparency and Accountability, *op. cit.*, pp. 3-4.

²⁹ Interview with Daniel Schwarz, June 27, 2008. However, at least one source had indicated that candidates could either fill out a questionnaire consisting of 70 questions or a shorter version consisting of 24 questions. See Jean-Loup Chappelet & Pierre Kilchenmann, Interactive Tools for e-Democracy: Examples from Switzerland, pp. 45-46.

³⁰ Jan Fivaz & Daniel Schwarz, Nailing the Pudding to the Wall - E-Democracy as Catalyst for Transparency and Accountability, *op. cit.*, p. 4.

³¹ *Ibid.*

³² *Ibid.*

³³ *Ibid.*

³⁴ See <http://www.smartvote.ch/index.php>.

³⁵ Jan Fivaz & Daniel Schwarz, Nailing the Pudding to the Wall - E-Democracy as Catalyst for Transparency and Accountability, *op. cit.*, p. 4; Interview with Daniel Schwarz, June 27, 2008.

³⁶ Jan Fivaz & Daniel Schwarz, Nailing the Pudding to the Wall - E-Democracy as Catalyst for Transparency and Accountability, *op. cit.*, p. 4.

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*, n. 4.

⁴¹ Interview with Daniel Schwarz, June 27, 2008.

⁴² Interview with Daniel Schwarz, June 27, 2008.

⁴³ FSee Auswirkungen der Fragen auf den smartspider, http://www.smartvote.ch/resources/pdfs/effects_smartspider_de.pdf.

⁴⁴ See Methodenbeschreibung smartspider, June 19, 2007, p. 1, http://www.smartvote.ch/resources/pdfs/methode_smartspider_de.pdf.

⁴⁵ *Ibid.*, pp. 1-2.

⁴⁶ Methodenbeschreibung smartspider, June 19, 2007, p. 2, http://www.smartvote.ch/resources/pdfs/methode_smartspider_de.pdf.

⁴⁷ Methodenbeschreibung smartmap, June 19, 2007, p. 2, http://www.smartvote.ch/resources/pdfs/methode_smartmap_de.pdf.

⁴⁸ See *Ibid.*, pp. 2-3.

⁴⁹ *Ibid.*, p. 3.

⁵⁰ <http://www.smartvote.ch/pdw/facts.php?term=3>.

⁵¹ *Ibid.*

⁵² <http://www.smartvote.ch/pdw/facts.php?term=4>.

⁵³ *Ibid.*

⁵⁴ Interview with Daniel Schwarz, June 27, 2008.

⁵⁵ <http://www.smartvote.ch/pdw/facts.php?term=4>.

⁵⁶ Interview with Daniel Schwarz, June 27, 2008.

⁵⁷ See, e.g., Richard R. Lau and David P. Redlawsk, Voting Correctly, *The American Political Science Review*, Vol. 91, No. 3, (Sept., 1997), pp. 585-598, 585 (citing John Stuart Mill and Rousseau).

⁵⁸ See Richard R. Lau and David P. Redlawsk, Voting Correctly, *The American Political Science Review*, Vol. 91, No. 3, (Sept., 1997), pp. 585-598, 585 (citing Berelson, Lazarsfeld, & McPhee, *Voting: A Study of Opinion Formation* (1954); Campbell, Converse, Miller, & Stokes *The American Voter* (1960); Converse, *The Nature of Belief Systems in Mass Publics*, in: David E. Apter (ed.) *Ideology and Discontent* (1964); Delli Carpini & Keeter, *What Americans Know about Politics and Why it Matters* (1996)); see also Larry M. Bartels, *Uninformed Votes: Information Effects in Presidential Elections*, *American Journal of Political Science*, v. 40, 194-230, 195 (1996).

⁵⁹ Arthur Lupia & Matthew D. McCubbins, *The Institutional Foundations of Political Competence: How Citizens Learn What They Need to Know*, in: Arthur Lupia, Matthew D. McCubbins, & Samuel L. Popkin (eds.) *Elements of Reason*, pp. 47-66.

⁶⁰ *Ibid.*; See also Daniel Kahneman, Paul Slovic, & Amos Tversky, *Judgement under Uncertainty: Heuristics and Biases* (1982); Richard E. Nisbett & Lee Ross, *Human Inference: Strategies and Shortcomings of Social Judgment* (1980); Amos Tversky & Daniel Kahneman, *Judgement under Uncertainty: Heuristics and Biases*, *Science* 185: 1124-31, 1974.

⁶¹ See Richard R. Lau and David P. Redlawsk, *Voting Correctly*, *The American Political Science Review*, Vol. 91, No. 3, (Sept., 1997), pp. 585-598.

⁶² Richard R. Lau and David P. Redlawsk, *Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making*, *American Journal of Political Science* 45 (October 2001): 951-971, available at <http://www.uiowa.edu/~c030111/papers/heuristic.pdf>; Georg Lutz, *The Unresolved Democratic Dilemma: Information, Cues - and Ignorance*, Paper presented at ECPR Conference – Marburg/Germany, 18 - 21 September 2003, available at http://www.georglutz.ch/docs/ECPR2003MarburgGeorgLutz_ger.pdf.

⁶³ Georg Lutz, *The Unresolved Democratic Dilemma: Information, Cues – and Ignorance*, Paper presented at ECPR Conference, Marburg, Germany, 18 – 21 September 2003, pp. 3-4.

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- ⁶⁵ Ibid., p. 20.
- ⁶⁶ Paul F. Lazarsfeld, Bernard Berelson, & Hazel Gaudet, *Wahlen und Wähler: Soziologie des Wahlverhaltens*, trans. R. F. Schorling, Heinz Maus & Friedrich Fürstenberg (eds.), 1969, p. 28.
- ⁶⁷ Ibid., p. 25.
- ⁶⁸ Ibid., p. 26-27.
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- ⁷⁰ Maxwell E. McCombs & Donald L. Shaw, *The Agenda-Setting Function of Mass Media*, *Public Opinion Quarterly* 36(2):176-187 (1972).
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- ⁷⁴ See Noelle-Neumann, pp. 246 et seq.
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- ⁷⁶ Michael Schenk, *Soziale Netzwerke und Massenmedien* (J.C.B. Mohr 1995), p. 225.
- ⁷⁷ gfs.bern, *VOX-Trendauswertungen, Stand Juni 2008*, <http://www.polittrends.ch/pub/a72.pdf>.
- ⁷⁸ gfs.bern, *VOX-Trendauswertungen, Stand Juni 2008*, <http://www.polittrends.ch/pub/a61-a72-1.pdf>.
- ⁷⁹ Lee Rainie & John Horrigan, *Election 2006 Online*, Jan. 17, 2007, p. i.
- ⁸⁰ Ibid.
- ⁸¹ Ibid.
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- ⁸³ Lee Rainie, Michael Cornfield, & John Horrigan, *The Internet and Campaign 2004*, Mar. 6, 2005, p. i.
- ⁸⁴ John Horrigan, Kelly Garrett, & Paul Resnick, *The Internet and Democratic Debate*, Oct. 27, 2004, p. 14.
- ⁸⁵ See e.g., Cass Sunstein, *republic.com*, Princeton, 2001.
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- ⁸⁹ Thomas R. Palfrey & Keith T. Poole, *The Relationship Between Information, Ideology, and Voting Behavior*, *American Journal of Political Science* 31: 511-30.
- ⁹⁰ See Richard R. Lau & David R. Redlawsk, *How Voters Decide* (Cambridge Univ. Press 2006), p. 24.
- ⁹¹ Georg Lutz, *Participation, Information and Democracy: When Do Low Turnout and Low Information Make a Difference - and Why?*, Aug. 2003, available at http://www.georglutz.ch/docs/APSA2003GeorgLutz_ger.pdf, p. 2 (citing Bühlmann, Marc, M. Freitag, et al. (2003). *Die schweigende Mehrheit: Eine Typologie der Schweizer Nichtwählerschaft*. Schweizer Wahlen 1999. P. Sciarini, S. Hardmeier and A. Vatter. Bern, Haupt).
- ⁹² Ibid.
- ⁹³ This proposition assumes that this figure holds true for elections. It seems likely that the figure would be higher for referenda than for the simple election of candidates. It is important to recognize that smartvote does not yet provide support for referenda.
- ⁹⁴ Bruno Jeitziner, *Wahlen im Internetzeitalter Informationsvermittler als politische Berater von Wählern und Politikern*, in: Schaltegger & Schaltegger (Eds.) *Perspektiven der Wirtschaftspolitik*, Zurich, 2004, pp. 47-64, 54.
- ⁹⁵ Ibid., pp. 53-54, 58.
- ⁹⁶ Ibid., p. 59.
- ⁹⁷ *Smartvote, smartvote – Benutzung und Feedback*, Aug. 12, 2006, p. 9, available at <http://v3.bielertagblatt.ch/images/dossier/benutzungsstatistik.pdf>.
- ⁹⁸ Ibid.
- ⁹⁹ Ibid.
- ¹⁰⁰ Jeitziner, op. cit., p. 59.
- ¹⁰¹ *Smartvote, smartvote – Benutzung und Feedback*, Aug. 12, 2006, p. 9, available at <http://v3.bielertagblatt.ch/images/dossier/benutzungsstatistik.pdf>.
- ¹⁰² It has also been suggested that an increasing trend toward a higher incidence of ticket-splitting was already emerging prior to the development of smartvote. See polittools.net, *Das neue Ratsinformationssystem*, May 10, 2004, p. 3, http://www.politools.net/documents/ris_2004.pdf. The drafters of this report suggested that this trend showed evidence that there was greater demand among voters for transparency in legislatures. Ibid.
- ¹⁰³ See Jeitziner, op. cit., p. 53.
- ¹⁰⁴ Bernhard Rütsc, *Elektronische Wahlhilfen in der Demokratie: Beurteilung im Lichte der Wahl- und Abstimmungs-freiheit, Spannungsverhältnis zu den politischen Parteien, Fragen staatlicher Regulierung* (2008), p. 35. Other commentators stress, however, the limited normative implications of this constitutional provision that—according to its wording—only determines the function of parties within the Swiss political system without conferring further competences for their support or regulation to the Federation; see Schmid & Schott, St. Galler Kommentar to Art. 137 N 11 et seq., in: Bernhard Ehrenzeller, Philippe Mastronardi, Rainer J. Schweizer, & Klaus A. Vallender (Eds.), *Die schweizerische Bundesverfassung*, Zurich, 2002.
- ¹⁰⁵ Bernhard Rütsc, *Elektronische Wahlhilfen in der Demokratie: Beurteilung im Lichte der Wahl- und Abstimmungs-freiheit, Spannungsverhältnis zu den politischen Parteien, Fragen staatlicher Regulierung* (2008).
- ¹⁰⁶ Jeitziner, op. cit., p. 57.
- ¹⁰⁷ See *ibid.*
- ¹⁰⁸ Ibid., p. 58.
- ¹⁰⁹ Ibid., p. 58.

- ¹¹⁰ Ibid., p. 58.
- ¹¹¹ Ibid., p. 60.
- ¹¹² Ibid., pp. 60-61.
- ¹¹³ Ibid., p. 61.
- ¹¹⁴ Ibid., p. 61.
- ¹¹⁵ Ibid., p. 61.
- ¹¹⁶ Wahlen – Daten, Indikatoren, http://www.bfs.admin.ch/bfs/portal/de/index/themen/17/02/blank/key/national_rat/wahlbeteiligung.html.
- ¹¹⁷ Ibid.
- ¹¹⁸ An increase of 4% in the case of both canton St. Gallen and canton Thurgau, whereas canton Lucerne shows an increase of 2.1%. Ibid.; see also http://www.bfs.admin.ch/bfs/portal/de/index/themen/17/02/blank/key/national_rat/wahlbeteiligung.Document.21777.xls.
- ¹¹⁹ See http://www.nccr-democracy.uzh.ch/nccr/knowledge_transfer/ip16.
- ¹²⁰ Jan Fivaz, Impact of “smart-voting” on Political Participation, Working paper presented at the Civic Education and Political Participation Workshop at the Université de Montréal, 17-19 June 2008, p. 14.
- ¹²¹ Ibid.
- ¹²² Ibid.
- ¹²³ Ibid., p. 15.
- ¹²⁴ Scott Crosson, Impact of the 2004 North Carolina Judicial Voter Guide (North Carolina Center for Voter Education & Justice at Stake, 2005), available at http://www.ncvoter.com/downloads/impact_voterguide_04.pdf. The guides themselves are available online at http://www.ncjudges.org/voter_guide/index.html.
- ¹²⁵ The number of respondents who had received the guide at the polls, however, was significantly smaller than the number of respondents who had not received the guide (36% versus 64% respectively of the total respondent pool). Crosson, p. 4.
- ¹²⁶ Crosson, op. cit., pp. 5-6.
- ¹²⁷ Ibid., p.6.
- ¹²⁸ Ibid., p.6.
- ¹²⁹ See Barry Schwartz, Too Many Choices: Why seniors won't sign up for the Medicare prescription drug plans, Slate.com, Nov. 22, 2005, <http://www.slate.com/id/2130932/>.
- ¹³⁰ Ibid.
- ¹³¹ On the flip side, many candidates featured in smartvote will probably have little to no presence in traditional media, including mailed pamphlets, etc. Thus, these candidates will receive more attention—thus adding to the information processing load of voters—through smartvote than otherwise would be the case.
- ¹³² See e.g., Richard R. Lau and David P. Redlawsk, Voting Correctly, *The American Political Science Review*, Vol. 91, No. 3, (Sept., 1997), pp. 585-598.
- ¹³³ Yet, according to surveys conducted by smartvote, on average a plurality of voters (31.2%) indicated that they “rather agreed” that smartvote led them to consider issues which they otherwise would have neglected. Another 18% on average indicated that they “agreed.” On the other hand the next largest percentage of voters on average (21.9%) indicated that they “rather disagreed” that smartvote directed their attention to issues they otherwise would have neglected and a further 21.7% indicated that they “disagreed.” Jan Fivaz, Impact of “smart-voting” on Political Participation, Working paper presented at the Civic Education and Political Participation Workshop at the Université de Montréal; 17-19 June 2008, Montreal, Canada, p. 17. The results are similar for the question of whether smartvote motivated voters to look for additional information on particular issues. However, positive answers (“agree” “rather agree”) were slightly higher with respect to the question of whether smartvote motivated users to look for additional information on particular candidates or parties. Ibid.
- ¹³⁴ Smartvote, smartvote – Benutzung und Feedback, Aug. 12, 2006, p. 11, available at <http://v3.bielertagblatt.ch/images/dossier/benutzungsstatistik.pdf>.
- ¹³⁵ Ibid.
- ¹³⁶ Ibid.
- ¹³⁷ This effect in turn could have implications for election outcomes and the political landscape in Switzerland.
- ¹³⁸ Instruktionsverbot. See Rüttsche, op. cit., p. 44.
- ¹³⁹ See Rüttsche, op. cit., p. 44. Nonetheless, Rüttsche points out that politicians who deviate from the party's wishes too often may be subject to sanctions of a political nature. Ibid., p. 44 &, in particular, n. 126.
- ¹⁴⁰ See also Raphael Kies & Hanspeter Kriesi, Pre-voting sphere and Internet voting: Possible impact of i-voting on the pre-electoral opinion formation, p. 18 (Pre-publication draft on file with authors), published as “Internet Voting and Opinion Formation. The Potential Impact of a Pre-Voting Sphere,” in: Alexander H. Trechsel and Fernando Mendez (eds.), *The European Union and E-Voting. Addressing the European Parliaments' Internet Voting Challenge*, London, 2004, pp. 147-165.
- ¹⁴¹ Interview with Jan Fivaz and Daniel Schwarz, Aug. 19, 2008.
- ¹⁴² Interview with Jan Fivaz and Daniel Schwarz, Aug. 19, 2008.
- ¹⁴³ See Rüttsche, op. cit., pp. 39-41.
- ¹⁴⁴ See Rüttsche, op. cit., p. 37.
- ¹⁴⁵ See, e.g. Jeitziner, op. cit., p. 54. Of particular interest is Raphael Kies & Hanspeter Kriesi, Internet Voting and Opinion Formation: The Potential Impact of a Pre-Voting Sphere, in: Alexander H. Trechsel and Fernando Mendez (Eds.), *The European Union and E-Voting. Addressing the European Parliaments' Internet Voting Challenge*, London, 2004, pp. 147-165 which not only discusses the potential benefits and issues concerning the establishment of a “pre-voting” informational platform, but also provides suggestions for the design of such a site.
- ¹⁴⁶ Rüttsche, op. cit., pp. 41-42.
- ¹⁴⁷ Ibid., pp. 8-9.
- ¹⁴⁸ Ibid., p. 9.
- ¹⁴⁹ Ibid., p. 9.
- ¹⁵⁰ Rüttsche, op. cit., pp. 9-10.
- ¹⁵¹ Ibid., p. 13.
- ¹⁵² Ibid.
- ¹⁵³ Ibid., pp. 13-14.
- ¹⁵⁴ <http://www.pda.ch/dotclear/index.php?2006/03/15/43-smartvote-abstinenz>.
- ¹⁵⁵ http://www.nzz.ch/nachrichten/zuerich/smartvote_macht_gruenliberale_fass

¹⁵⁰ Rüttsche, op. cit., pp. 9-10.

¹⁵¹ Ibid., p. 13.

¹⁵² Ibid.

¹⁵³ Ibid., pp. 13-14.

¹⁵⁴ <http://www.pda.ch/dotclear/index.php?2006/03/15/43-smartvote-abstinez>.

¹⁵⁵ http://www.nzz.ch/nachrichten/zuerich/smartvote_macht_gruenliberale_fassbar_1.548471.html.

¹⁵⁶ See Zürcher Frauenzentrale, Jahresbericht 2007, p. 15, <http://www.frauenzentrale.ch/zuerich/cms/upload/pdf/publikationen/jahresbericht/Jahresbericht2007.pdf>.

¹⁵⁷ Interview with Daniel Schwarz, June 27, 2008; Statement of Daniel Schwarz, Aug. 21, 2008.

¹⁵⁸ Interview with Daniel Schwarz, June 27, 2008.

¹⁵⁹ Ibid.

¹⁶⁰ See Smartvote, smartvote – Benutzung und Feedback, Aug. 12, 2006, pp. 2-4, available at <http://v3.bielertagblatt.ch/images/dossier/benutzungsstatistik.pdf>.

¹⁶¹ Smartvote, smartvote – Benutzung und Feedback, Aug. 12, 2006, p. 2.

¹⁶² Ibid., p. 3.

¹⁶³ Smartvote macht Grünliberale fassbar, NZZ Online, Aug. 31, 2007, http://www.nzz.ch/nachrichten/zuerich/smartvote_macht_gruenliberale_fassbar_1.548471.html.

¹⁶⁴ Statement of Jan Fivaz, Aug. 21, 2008. Earlier this figure may have stood at 500 Francs. See Transparenz - und Datenschutzregelungen bei Mitgliedschaften und Spenden, Aug. 1, 2005, http://www.politools.net/documents/transparenz_2005.pdf.

¹⁶⁵ See http://www.smartvote.ch/side_menu/support/donation_report.php?who=v.

¹⁶⁶ http://www.smartvote.ch/side_menu/about_us/method.php?who=v.

¹⁶⁷ Richard R. Lau & David R. Redlawsk, *How Voters Decide* (Cambridge Univ. Press 2006), p. 17.

¹⁶⁸ Interview with Jan Fivaz and Daniel Schwarz, Aug. 19, 2008.

¹⁶⁹ See e.g., NCCR Democracy, *Democracy and the Internet: opportunities and risks of smart-voting*, Newsletter No. 4, November 2007.