

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

Jan FIVAZ, NCCR Democracy / University of Berne, Switzerland,
jan.fivaz@nccr-democracy.unizh.ch

Daniel SCHWARZ, University of Berne, Switzerland
daniel.schwarz@ipw.unibe.ch

both are members of Politools Research Network, Berne
(www.politools.net)

February 8, 2007

Abstract

Most discussions on e-democracy are focussed on e-voting; in other words on the very act of voting itself. The effects of e-democracy in the so-called “pre-voting sphere” (process of gathering information and opinion formation before the election day) are often neglected. This paper argues that e-democracy is more than just casting the ballot by Internet. It presents “smartvote”, a sophisticated online voting assistance tool which allows voters to choose candidates and parties in elections on the basis of their own political values and preferences. The paper has two aims: first, it describes how smartvote works and presents some preliminary results on the use by candidates as well as by voters; second, it shows how e-democracy tools can enhance and strengthen fundamental democratic principles like political participation, transparency and accountability.

1 Introduction

The concept of democracy is an elusive one. It has resulted in numerous definitions differing in weights they give to certain aspects of democracy. Keeping matters simple, democracy is a mode of decision making that incorporates the following fundamental normative principals:

- Inclusive participation and political equality.
- Availability of information and transparency of decision-making processes.
- Accountability and responsiveness of decision-makers.

There may be additional requirements (e.g., the rule of law and human rights protection in general) but it is hard to imagine that one of the aforementioned principles of democratic governance can be taken away without seriously damaging the notion of what we would call “modern democracy”. Moreover, the desirability of these principles do not seem to provoke much controversy among scholars, although distinct lines of thought may ascribe different weight to them, using many alternative definitions (e.g., see Dahl 1998; Strøm et al. 2003a; de la Porte/Nanz 2004, Freyburg et al 2006).

In recent years, the emergence of the Internet went together with great hopes for improvements in the quality of democracy: e-voting should lead to higher voter turnouts; political websites should provide citizens with a wide variety of information about political issues, parties and candidates; and online forums, blogs and chats should foster deliberative discussions among citizens as well as between citizens and the political elite. But Internet technology not only offers a wide variety of possibilities to present information, it also opens up completely new ways of decision-making processes.

The emergence of such tools also led to some scepticism as to the quality of the tools itself and the potential dangers of re-interpreting the free mandate of deputies into an imperative one: how should members of parliament or legislative party groups find compromise solutions if they are bound to pre-election positions revealed in some online tools?

Research efforts on the effects of e-democracy tools in the so-called “pre-voting sphere” (i.e., process of gathering information and of opinion formation before the election; see Kies/Kriesi 2004) still have been scarce. This paper presents “smartvote”, a sophisticated and well-established Swiss-based online voting assistance tool, which allows voters to select candidates and parties on the basis of their own political values and preferences. The paper also highlights recent developments extending the idea of smartvote to the spheres of direct democracy and post-election behaviour in parliament.

The paper is organised the following way: after a short description of the main technical features of smartvote (section 2), differences to competing online tools are presented (section 3), and its success in Swiss election campaigns is evaluated (section 4). Section 5 discusses options for further development with regard to direct democracy, legislative behaviour, and the application in an international environment. Section 6 outlines some challenges for democracy emerging from the appearance of smartvote and similar instruments. The main question is whether and how tools like smartvote can improve the electoral process and its outcomes.

2 smartvote – features and functioning

In recent years the emergence of a new type of voting assistance websites could be observed in Western Europe and the United States. The first one was the so-called “Stemwijzer”¹ which was introduced during the campaign to the 1998 election in the Netherlands and offered support for undecided voters. In a first step they had to reveal their political preferences by answering a number of questions on political issues. In a second step the “Stemwijzer” compared their answers with the propositions of the political parties on the same issues and generated a list ranking in decreasing order according to the congruence level with the voters’ answers. Since 1998 a steadily growing number of such issue-matching systems has been implemented to many major elections in Western Europe.² Of course there are huge differences between this online voting assistance tools regarding the offered features or used methods, but they all have in common the above mentioned functioning principle of “Stemwijzer”.

In this paper we will concentrate on one specific tool: smartvote. Smartvote was developed for the 2003 elections in Switzerland and can be described as the by far most sophisticated voting assistance tool.³ The smartvote website consists of three main 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 visualisation of political positions. In this section we will go into some details on features and functioning of smartvote as well as on the differences between smartvote and other voting assistance tools.

Box 2.1: *smartvote at a glance*

Website:	http://www.smartvote.ch (only available in German and French); http://smartvote-demo.politools.ch/fix/html/index.php (demonstration website in English).
Use:	First time application in the 2003 national elections in Switzerland. Since then it was offered in more than twenty local or regional elections in Switzerland and Bulgaria.
Owner/provider:	Politools – Political Research Network (http://www.politools.net). Politools is a non-profit, non-partisan interdisciplinary scientific network.
Contact for international projects:	gabi.felder@smartvote.ch

2.1 The smartvote module

The core of the smartvote website is the issue-matching module (smartvote module). In a first phase, about three months before the election day all candidates receive the smartvote

¹ See <http://www.stemwijzer.nl>

² The “Stemwijzer” was also implemented in Switzerland (<http://www.politarena.ch>) and Germany (<http://www.wahlomat.de>). In Austria, too, a similar website was developed (<http://www.wahlkabine.at>) as well as in the United Kingdom (<http://www.whodoivotefor.co.uk>), the United States (<http://www.project-vote-smart.org>; <http://www.ontheissues.org>), and one may find also a similar website for non-electoral comparisons with historical political figures from Stalin to Nelson Mandela (<http://www.politicalcompass.org>). A research project at the University of Antwerp currently works on an overview of such websites (<http://webhost.ua.ac.be/m2p/vaa/>).

³ In a green paper on the future of democracy in Europe the whole group of these voting assistance tools was labelled “smart voting” tools (see Schmitter and Trechsel 2004).

questionnaire, either by e-mail or by letter; they are asked to answer the questionnaire completely and to return it. The questionnaire consists of up to 70 questions on the most important political issues (like e.g., “Do you think that nuclear power plants should be shut down?”). Thus it allows generating a comprehensive political profile. Answer options are “yes”, “rather yes”, “rather no” and “no”. Candidates do not have an opting-out possibility; they always have to answer all questions. Only complete answer sets are included into the later calculation of voting recommendations. Moreover, candidates have to confirm their answers before they are saved in the smartvote database. Once they have confirmed their answer set it is no longer possible to change them.

About six weeks before the election day the second, operational phase starts. The smartvote website is now accessible for voters and leads them in three steps to their individual voting recommendation:

1. *Voters have to specify their political profile:* To do so they are asked to answer the same questionnaire as the candidates before. Although the questions are formulated as easily understandable as possible, additional support is provided by some background information and explanations including pros and cons to every question. In contrast to candidates voters have also a “no answer” option if they wish to leave out a number of questions, and they can weight the answers according to the relevance the issue has to them (for an overview of the answer options of candidates and voters see Table 2.1).
2. *Voters have to customize their voting recommendation:* After defining their political profile voters have to specify in which constituency (electoral district) they live, respectively for which constituency they want to receive a voting recommendation. Depending on the electoral system they have also to decide whether they wish to receive a voting recommendation for lists/parties or for individual candidates.
3. *Calculation and presentation of the voting recommendation:* Based on this information smartvote calculates an individual voting recommendation for each voter. First, smartvote compares the voter answers with the answers of a candidate including the weighting factors the voter has given to the questions. The higher the congruence of the answers between a voter and a candidate, the more “congruence points” a candidate gets.⁴ This process is repeated over all questions and for every candidate in the selected constituency. Second, smartvote generates the voting recommendation in form of a list with a decreasing ranking of the candidates according to their total congruence score.

If a voter wishes to receive a voting recommendation for lists/parties the procedure is the same with the exception that instead of the answers of single candidates the list or party answers are used. As list or party answer smartvote uses the mean value of all answering candidates of a list or party.

⁴ For an identical answer (e.g. yes-yes) the candidate gets 100 congruence points, for a complete disaccord (e.g. yes-no) he/she gets 0 points. The points to the individual questions are then added up to a total score.

Table 2.1: smartvote answer options of candidates and voters

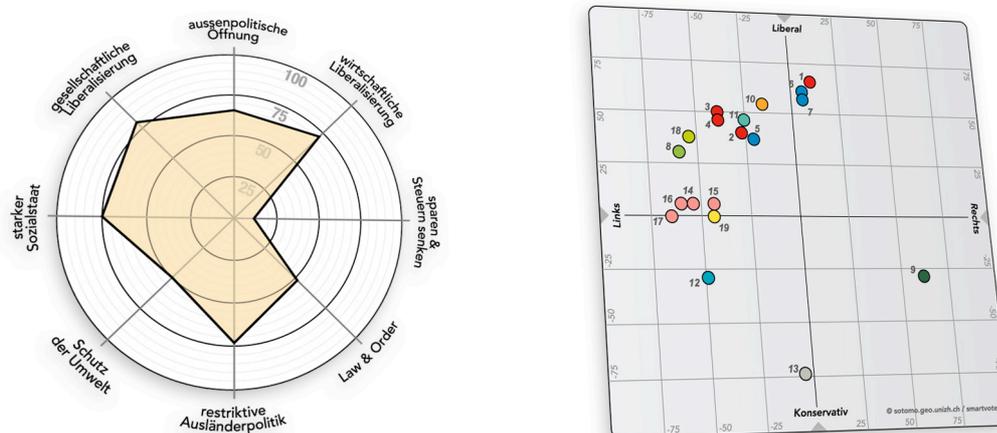
	Answer options	“No answer” option	Possibility to weight answers	Possibility to change answers
Candidates	Yes; rather yes; rather no; no	No	No	No
Voters	Yes; rather yes; rather no; no	Yes	Yes, there are three possible settings: low importance, normal importance (default setting) and high importance	Yes

2.2 Additional services

Besides the smartvote module the website features some additional services:

- The website contains a database with all candidates, including extensive portraits with political profile (smartvote questionnaire, information about their political career, their political agenda, and so on), and information about their personal profile (e.g., educational, professional and family background). The database also includes links to personal websites or to video files.
- The website provides tools for visual analysis of political preferences: the so-called smartspider and smartmap charts (for examples see Figure 2.1). Both analytical graphs are based on the candidates' answers to the smartvote questionnaire.
 - The smartspider shows the agreement or disagreement on eight major political issues formulated as political goals (e.g. more law and order, more environmental protection, or a strong welfare state) in a spider net graph. The values on the eight axes range from 0 to 100 – 0 standing for complete disapproval of the formulated political goal and 100 for full approval.
 - The smartmap is based on a system of coordinates with two major ideological cleavages serving as axes – the “north-south axis” for the cleavage between liberal and conservative standpoints and the “west-east axis” for the left-right cleavage. (Of course, the two axes are designed for the Swiss – or European at most – political context and would need to be adapted in other countries.)

Figure 2.1: Examples for smartspider (left graph) and smartmap (right graph)



- Voters can create their own user account so that they can save their answers for a future visit on the website. In addition user accounts feature further services like the possibility to send e-cards with one's own smartspider to friends, or receive a newsletter and additional information about upcoming elections by e-mail.

2.3 Running smartvote – quality control and credibility

The quality and credibility of the services is the probably most important factor for successfully running a website like smartvote. Therefore the owner and provider of smartvote has to pay special attention to following aspects:

- *Political independence of the provider:* smartvote is developed and operated by the Politools network – a non-partisan network of researchers and programmers from different Swiss universities. Neither interest groups nor private corporations provide financial support. No political actor is directly engaged in the project. Hence, the project is politically independent. Politools also lays emphasis on transparency. All network members involved in the project as well as all donators and other financing institutions are listed on the website. The same is true for the necessary information about the methodology applied to calculate the recommending list.
- *Composing the smartvote questionnaire:* Besides the applied methods to calculate the voting recommendations the smartvote questionnaire is the main core element of smartvote. For each election the questionnaire is updated according to the specific political issues and the regional/local background. Criteria for composing the questionnaire are the coverage of a broad range of issues, relevance of the questions, an appropriate mixture of past, present and future issues, and the comprehensibility of the questions. Moreover, a sufficient number of questions has to “fit” into the system of smartspider and smartmap. Although there are different sources for the individual questions, the final responsibility for the composition of the questionnaire rests with the Politools network alone.
- *Fair and equal treatment of all candidates and parties:* All candidates and parties which are approved by the electoral authorities can participate in smartvote. For all of them exactly the same rules and conditions apply: Participation is free of charge (at least at sub-national level), the whole questionnaire has to be answered with no veto possibilities if a specific question is disliked (“take it or leave it” principle), and candidates with no internet access receive a printed version of the questionnaire.

2.4 What makes the difference

smartvote is neither the first nor is it the best-known of all online voting assistance tools. Nevertheless, it can be considered the most sophisticated of these tools, regarding its additional features, its modular software architecture and its compatibility with further extensions (see section 4)

- smartvote is able to offer its services for multiple elections with overlapping constituencies at the same time (e.g. one national, one regional and two local elections).
- smartvote is able to calculate voting recommendations according to the electoral system both on the level of single candidates or on the level of lists/parties.
- smartvote also calculates specific voting recommendations for each constituency (electoral district) and not just one for the whole election (like “Stemwijzer” does, for instance). Since not every party necessarily takes part in every constituency and – at

least in Switzerland – local and regional party sections can vary in their political positions a meaningful voting recommendation has to consider the specific circumstances of constituencies.

- The questionnaire used by smartvote is more than twice as long as questionnaires used by other tools. The recommendation is thus based upon more empirical data and is therefore more reliable.
- smartvote is the only voting assistance tool which includes additional visual analytical tools like the smartspider and the smartmap graphs.
- Finally, all data of past elections are stored in the database, allowing for time series analysis.

3 Candidate participation and usage by voters

Most discussions as well as the overwhelming part of today's research on e-democracy are focussed on e-voting: in other words on the very act of voting. With regard to the remarkable success of websites like smartvote in several European countries (in terms of the number of users/voters and media coverage⁵) it is quite surprising that their possible effects on the voters' decision-making processes is widely neglected as a political science research topic.

The rare studies that deal with this question are either focussed on theoretical aspects (e.g. Kies /riesi 2004; Jeitziner 2005) or they are more of an explanatory character and primarily raising questions to be considered in future research (e.g. Walgrave et al 2006; Boogers 2006). Yet, there are no empirically based in-depth analyses of the effects of such voting assistance websites on the opinion formation and decision-making processes of voters.

A promising attempt helping to close this gap started in October 2005 when a joint research project on "smart-voting" was launched at the Universities of Zurich and Berne as well as the European University Institute (EUI) in Florence.⁶ This project will explore the use of smartvote by candidates as well as voters in the context of a number of elections on different state levels (communal, cantonal/regional, and national) in Switzerland. The project makes use of data gathered by smartvote (i.e., answers of candidates and voters, details of the issued voting recommendations), of official election statistics, and of post-electoral surveys among candidates and voters. There are three central questions which the project addresses:

- By making politics more visible and accessible, does the use of smartvote lead to a higher interest in politics among citizens in general and also to a higher voter turnout in particular?
- What effects does the use of smartvote have on the opinion formation of voters as well as on the campaigns of candidates?
- Does the use of smartvote strengthen the quality of democracy? For example, by increasing voter turnout and accountability, or by providing a better information basis?

Main data collection efforts will take place in October 2007 during and after the elections to the Swiss national parliament. Therefore, the present paper only reproduces first results from

⁵ For instance, online voting assistance websites were offered in the United States, the United Kingdom, Germany, Belgium, Bulgaria, Austria, the Netherlands, Italy and Switzerland. In the 2005 election in Germany the so-called "Wahl-o-mat" was used by more than five million voters (see http://www.bpb.de/presse/0UD00F,0,WahlOMat_bleibt_bis_zum_2_Oktober_online.html).

⁶ For a project description, see: http://www.nccr-democracy.unizh.ch/nccr/knowledge_transfer/ip16

a pilot study during regional elections in the canton of Berne in April 2006. Nevertheless it allows showing some interesting empirical findings regarding the following three questions:

- How often do candidates and voters use smartvote?
- Who is using smartvote? Is there a digital gap?
- What is the relevance of smartvote for voters' pre-election decision making?

As already mentioned in section 2 a key factor for the success of smartvote is the share of participating candidates. Only if the smartvote questionnaire is answered by a sufficient number of candidates it is possible to calculate and issue meaningful voting recommendations. Table 3.1 shows selected participation shares – separately among all candidates and among the elected candidates. Smartvote was offered for the first time during the 2003 election campaign to the Swiss national parliament.

Table 3.1: Use of smartvote by candidates (2003-2006; selected elections)

Elections	smartvote participation of all candidates (in %)	smartvote participation of elected candidates (in %)
Election to the Swiss parliament (2003)	50.3	69.5
Elections to local and regional parliaments (2004-2006)		
Regional election, canton of St. Gallen (2004)	72.9	78.9
Regional election, canton of Thurgau (2004)	62.9	77.7
Local election, city of St. Gallen (2004)	80.6	98.4
Local election, city of Berne (2004)	70.2	83.8
Local election, city of Geneva (2005)	75.1	91.1
Local election, city of Zurich (2006)	57.5	93.6
Local election, city of Winterthur (2006)	50.4	78.3
Regional election, canton of Berne (2006)	63.0	83.4
Elections to local and regional governments (2004-2006)		
Regional election, canton of St. Gallen (2004)	100.0	100.0
Local election, canton of St. Gallen (2004)	100.0	100.0
Local election, city of Berne (2004)	91.7	100.0
Local election, city of Geneva (2005)	84.6	100.0
Local election, city of Zurich (2006)	100.0	100.0
Local election, city of Winterthur (2006)	100.0	100.0
Regional election, canton of Berne (2006)	84.2	100.0

Source: smartvote (www.smartvote.ch)

Three aspects are noteworthy in Table 3.1:

- Between 2003 and 2006, the use of smartvote clearly was increasing.
- The elected candidates show a higher propensity to participate.
- Elections to government bodies produce higher participation shares than parliamentary elections.

Based on the evidence presented above we conclude that the use of smartvote by candidates is sufficient and allows the calculation of meaningful voting recommendations. But what about the use by voters? Table 3.2 contains the number of individual users/voters who used smartvote within the last three years. The figures are taken from the website's database. While the absolute figures do not look very impressive, one may consider that Switzerland is a small country of about 4.9 million eligible voters at national level. Much more reasonable are the relative figures presented in the second column; they show how many percent of voters effectively casting their ballot used smartvote as an information source during election campaigns.

Table 3.2: Use of smartvote by voters (2003-2006; selected elections)

Elections	smartvote use by voters (absolute figures)	smartvote use by voters as percentage of voter turnout
Election to the Swiss parliament (2003)	255'000	11.7
Elections to local and regional parliaments (2004-2006)		
Regional election, canton of St. Gallen (2004)	16'000	16.2
Regional election, canton of Thurgau (2004)	7'750	13.7
Local election, city of St. Gallen (2004)	4'000	23.4
Local election, city of Berne (2004)	9'500	28.9
Local election, city of Geneva (2005)	22'900	24.9
Local election, city of Zurich (2006)	15'100	22.8
Local election, city of Winterthur (2006)	3'100	12.9
Regional election, canton of Berne (2006)	35'900	16.7

Source: smartvote (www.smartvote.ch)

Table 3.1 reveals that smartvote enjoys remarkable popularity among voters. Sometimes more than twenty percent of those voting used smartvote. This leads to further questions: What social groups among voters are using smartvote most often? And, how are they using smartvote? Is it merely a kind of political entertainment or is it serious source of information?

All studies on Internet usage show strong bias concerning socio-economic aspects (the so-called "digital divide" or "digital gap"; see e.g. Norris 2001). One might expect that this is also true for the users of online voting assistance tools like smartvote. A survey conducted among smartvote users in 2006 reveals the same pattern as similar surveys in Germany and Belgium (Marschall 2005; Walgrave et al 2006): the average user is young (18 to 39 years old), male (67 percent) and has got a higher education (often university degree). However, there is some evidence that this "digital gap" is closing: for instance, only people over 50 years are under-represented among smartvote users (compared to the population), and among the youngest users the difference in respect to gender and social and educational factors is

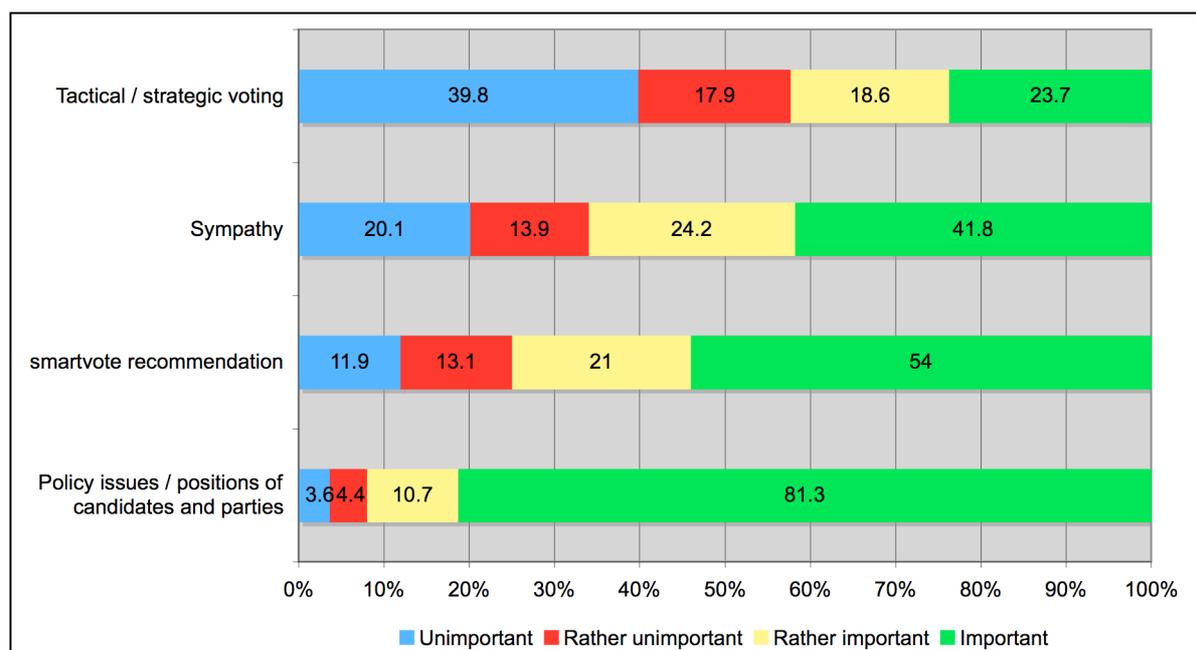
smaller than among elder ones. Hence, we can be optimistic that this “digital gap” is further closing over time.

Concerning the question how important online voting assistance tools like smartvote are regarding the opinion formation of voters the few available results are less clear-cut. Walgrave et al (2006) argue, based on studies on a Belgian voting assistance website in the 2004 elections, that effects on voters were quite tiny. Despite widespread use – about one million voting recommendations, corresponding to 25% of the Belgian electorate, were rendered – just a few percent of the voters had been affected by the website. The overwhelming part of the people knew in advance which party they wanted to vote for, therefore they sought foremost a confirmation of their party choice and not open-minded support for their decision making. One of the most interesting findings of this study is that politicians and journalists believe in the website’s strong impact on voting behaviour, whereas the perception of voters and empirical findings tell another story.

In contrast to this Belgian study, a survey conducted in the Netherlands and our own pilot project in Switzerland lead to total different conclusions. The Dutch study (Boogers 2006) found that voting assistance websites helped voters to identify party positions on important political issues and therefore supported them in making party choices, encouraged them to look for additional information and stimulated debates with friends or family members, and – last but not least – was an additional motivation to cast their vote.

Our own study based on a survey among smartvote users in the 2006 regional elections in the canton of Berne shows very similar results. Over 74 percent of them said that the smartvote voting recommendation had an influence on their voting decision and that it led to the same effects as mentioned above. Figure 3.1 shows further the impact of smartvote on the voting decision.

Figure 3.1: Influence of smartvote compared to other factors in the decision-making process



Source: NCCR Democracy (www.nccr-democracy.unizh.ch); IP 16 “smart-voting”.

As a conclusion for this section one may see the use of such new forms of voting assistance websites steadily increasing. Regarding the the impact on opinion formation it is shown that

most users regard and use such websites as credible voting assistance, and not as a mere toy designed for political entertainment.

4 Extending smartvote

smartvote is still far away from having realised its full potential. Several projects have been or will be launched which are designed to improve the properties of smartvote and to open up new possibilities to enhance e-democracy:

- *On-going improvements and extensions:* In February 2007 a complete redesign of the smartvote website was implemented. This included usability improvements such as simplified navigation, improved multi-language support, and additional tools for analysis (e.g., enhanced visual analyses of political positions). Further points await soon implementation: connectivity to other websites such as election platforms and monitoring sites, the integration of an online polling system so that surveys on platform users (candidates/parties and voters) can easily be carried out, as well as selective products for the media, interest groups, party officials and teachers/schools. They include login areas on the smartvote website with group-specific information packages, databases, and analytical tools.
- *smartvote as a tool for civic education:* In collaboration with educational institutions and textbook publishers an adapted smartvote version for civic education of first-time voters was implemented in summer 2006. Primary aim of this site called “party compass”⁷ is to give insights to the basic political positions and values of the Swiss political parties and the party system in general in a non-partisan manner.
- *Combining smartvote and e-voting:* In the elections 2005 and 2007 to the Students’ Council of the University of Berne smartvote was directly linked with a true e-voting system: Voters could use smartvote to select the candidates and put them on a virtual ballot. Then they could transfer the ballot from the smartvote website to the university e-voting system by a simple mouse click. Once there, the ballot could be further modified and cast after a secure identification procedure.
- *International version of smartvote:* There is no reason why smartvote should be confined to Switzerland. There have already been two adoptions abroad: first, in June 2005 a Bulgarian development assistance NGO implemented an adapted version of smartvote for the national parliamentary election.⁸ The Politools network held an advisory role in this project. Second, from March to May 2007 smartvote will be an integrated module within an encompassing online information platform for the elections to the Scottish parliament. In this project Politools works closely together with the C2D at the University of Geneva as well as with the University of Edinburgh to offer this service to Scottish voters.

Based on this positive experience and the evident interest of international partners to implement smartvote in their political contexts, it is planned to develop a smartvote version which is easily adaptable to every electoral system worldwide. It is intended to create a modular design with the smartvote tool in its core. Additional components would enclose other, customised services, e.g. specific tools for analysis, selected information packages for media partners, polling instruments, blog or discussion forums, or platforms for civic education. However, such a package would just provide a framework, a lot of work would still await potential partners (translation of the website, development of the questionnaire, establishing contacts with political parties and the

⁷ See <http://www.parteienkompass.ch> (only available in German).

⁸ See <http://www.koimipasva.bg> (only available in Bulgarian).

media, and so on). Major obstacles for such a project are the financial resources for initial development of the IT framework and the establishment of an international network of professional partners (universities, non-partisan NGOs).

- *Extension to direct democracy:* At first sight the adaptation of the smartvote idea to the field of direct democracy is appealing. Decision making in direct democracy consists of a binary choice between “yes” and “no” to a specific, pre-selected question asked to voters. As consequential it may seem, there are also differences to electoral decision making which pose some challenges to the development of such a tool. While in the context of elections the smartvote questionnaire captures a broad variety of policy issues and values, in the context of a popular vote there is only one issue at stake. Of course, this issue often can be broken down to a number of even more basic questions, so that the (potentially multidimensional and thus complex) topic of the popular vote can be made accessible to less informed voters. But this requires that voters can individually assign a relevance factor to each question. The value of a smartvote application for direct democratic decision making could be increased if it is linked to a general information platform where additional tools are located. In so doing both goals of targeted information about the topic at issue on the one hand and of general civic education on the other could be best achieved.
- *Extension to the post-voting sphere:* The implementation of the smartvote idea in the legislative field is not new, especially to those familiar with the situation in the United States. Legislative monitoring is based on roll-call analysis, which makes clear what the main ingredient for meaningful implementation is: a large and unbiased number of published legislative votes. Only a minority of parliaments fully comply with this requirement (for legislatures in Latin America, see Carey 2006). However, if adequate data is available the great innovation of extending smartvote to the parliamentary sphere rests in drawing direct comparisons between political pledges during election campaigns and the actual behaviour in parliament after the election. And, putting the idea further ahead, the legislative voting behaviour can then again be compared with the statements in the upcoming election campaign. Such an “accountability cycle” avoids that representatives of the political elite (party officials, members of parliament, candidates) depart too far from the political positions of the electorate.

5 Effects on democratic governance

In the introduction section we have laid down some basic principles of democratic governance which can be subsumed under the headings of participation, transparency, and accountability. With regard to electoral opinion formation and its outcomes, what effects on the quality of democratic governance can be expected by the use of smartvote?

5.1 Transparency

In the present context, transparency means the availability of relevant and unbiased information on candidate and party policy positions. The level of information lies at the core of the actual voting decision and also affects levels of participation and accountability (see below). The so-called “low information rationality hypothesis” argues that the information level of voters does not matter because uninformed voters rely more on information short-cuts, cues and heuristics (Popkin 1991; Page/Shapiro 1999). This view is theoretically criticised and meanwhile also empirically disputed (Kuklinski/Quirk 2000; Lutz 2004). Thus, if the level of information matters, so does the quality of available information.

smartvote stresses candidates and political parties to reveal information they otherwise would only reluctantly make public. Therefore, candidates and parties face a strong trade-off

in their decision whether to answer the smartvote questionnaire at all: on the one hand they have incentives to do so since smartvote offers the possibility to present themselves and their political program in detail and at low costs to a great number of voters. On the other hand, candidates are reluctant to reveal their true political positions. This can be explained by rational choice (Mueller 2003), since political advertising can be divided into informative and persuasive forms. Purely informative advertising – smartvote belongs to this form – informs voters of a candidate's or party's positions on specific political issues. Moreover, tools like smartvote offer direct comparisons between them and calculate agreement scores between the voter and the individual candidates or parties. For candidates and parties, this is double-edged: it increases the likelihood that voters will vote for the candidate because they share his/her positions, but it also increases the likelihood that some voters will vote for competitors - because they are now informed about those positions. In other words, a haze of uncertainty among the voters can be an advantage for a candidate or party, so political parties and candidates have a preference for persuasive forms of advertising that allows to present oneself as the most honest, trustworthy or competent candidate (i.e., so-called "valence issues"; see Stokes 1963). Ultimately, it is the strong demand for transparency by voters and the media (as well as potential first-mover advantages between competitors) which drives the candidates and parties to take part in smartvote.

The honest brokering of transparent and comparable, non-partisan information about the supply side on the "political marketplace" (to speak in the words of Downs 1957) may have another effect on voting decisions. There is an on-going debate on proximity and directional voting behaviour. The proximity model is favoured by conventional spatial theories where voters pick the candidate or party closest to their own issue positions (Downs 1957; Mueller 2003). The directional model assumes that voters do not care so much about the exact political distance but choose those candidates or parties that are "on their side"; they may even consciously vote for more extreme positions because they expect that these positions will be moderated in the subsequent political process (Rabinowitz/Macdonald 1989; Merrill/Grofman 1999; for a short overview, see Christin/Schulz 2006). The mechanism of smartvote clearly favours proximity voting, thus potentially bearing a moderating effect on overall election results.

5.2 Participation

Notwithstanding the dispute in political science over the question whether low levels of participation are of much concern (see Lutz 2004), tools like smartvote facilitate participation provided the voters have sufficient computer and internet skills and that there is a minimum level of political interest. Of course, participation depends a great deal on individual resources like money, time, and education which impose clear restrictions on participation-boosting effects of internet voting-assistance tools. Moreover, internet tools are part of – and not a solution to – the empirically confirmed "digital gap" and therefore are not expected to have great effects on mass participation (Norris 2002, 2003). But at least for sufficiently educated, but hitherto unwilling or "disoriented" citizens smartvote constitutes a useful instrument that enhances the accessibility and quality of available information and further lowers transaction costs (time). This may even be the case when we analyse the present situation as one of "informational overload" like Strøm et al. (2003b) do:

"[G]iven the overwhelming amount of available information it is difficult to filter out 'noise' and get to the core of what is relevant. Informational overload means that even better-educated citizens are often unwilling to search for information and consider it the politicians' obligation to deliver by the door. Perhaps the information-education revolution in the end has done more to raise expectations than to satisfy demands for transparency. To put it in the words of media studies, voters seem more 'over-newsed but under-informed' than ever before" (p 741).

As the development of the Internet rapidly moves on, the citizenry – perfectly accustomed to the daily usage of the Internet on the job, for consumer transactions, or in private life using e-mail and instant messaging communication – will soon actively demand for Internet tools in the realm of politics and democracy. A country which does not get “e-democracy-ready” today could lose some participation (and thus legitimacy) in the future.

5.3 Accountability

Incumbents are representatives of their constituencies. In the view of rational choice theory, members of parliament are the agents while voters are the principals (Strøm 2003). In the principal-agent framework, the latter always are in a superior position due to informational advantages and the lack of direct control. smartvote strengthens the accountability of candidates and parties. Today, finding out the true positions of candidates on political issues is often like nailing a pudding on the wall. smartvote urges candidates to reveal their positions, which later on can be compared to their actual voting behaviour in parliament. In this respect, a direct connection to websites analysing parliamentary roll calls would be very useful (Jeitziner 2004). Such a link would also strengthen the potential and usefulness of e-democracy in the eyes of the citizens.

The democratic challenge is to ensure accountability without unduly narrowing the necessary leeway of deputies and parties to compromise and find majority coalitions with others. If the “culture of responsiveness” is driven too far, the liberal concept of the free legislative mandate is re-interpreted into an imperative one. This may result in political gridlock and confrontation to an undesired extent. At this point criticism of deliberation theory sets in since it sees some merits in closed-door negotiations and debates (for an overview, see Bächtiger 2005; Dryzek 2002); that way, involved politicians can search for consensus- and majority-building solutions without losing their face and – finally, in the next elections – even their mandate.

However, the theoretical gap may get closed in real-world politics. On the theoretical level already the conceptual difference between deliberation/consensus theory and pluralism seems to be less problematic than often stated (see Dryzek/Niemeyer 2006). On the more practical level, one should not pit the effects of tools like smartvote against ideal democracy, but against today’s situation and quality of democratic governance in most countries. The present situation is characterised rather by too little transparency, accountability, and also participation, than by well-balanced structures and perfectly governed democracies. If there is an indirect trade-off between the level of accountability and the level of deliberation, then the present situation in most countries probably is one of too little of the former (while not saying that there is too much of the latter). This line of reasoning is supported in a recent study by Snyder/Ting (2005) who argue that the publication of legislative votes (and thus transparency and accountability) are an effective means to establish a level playing field in the political sphere since insiders like interest groups, campaign financiers and party officials do know anyway how “their” representatives behave in parliament. If transparency is not guaranteed, the political system runs the risk that its representatives mainly serve the interests of these insiders.

6 Conclusion

E-democracy can not solve all deficiencies of contemporary democracies. Nor will it transform as if by magic “bad democratic governance” into “good governance”. But intelligent and innovative implementation can fully realise the positive potential of e-democracy. We think that carefully developed and implemented online voting assistance tools in general, and smartvote in particular, are good examples for an evolution which started about than ten years ago and will press further ahead in upcoming years.

What makes smartvote so special? First, it is probably the most flexible of these online voting assistance tools; it calculates voting recommendations for candidates as well as parties. It is also capable to take into account specific aspects of single constituencies, it can run several elections on different state levels simultaneously, and it can easily be adapted to any electoral system worldwide. Second, the operator of smartvote is a non-partisan scientific network connected to university institutes. Political parties do not have a say in drafting the most crucial part of smartvote, the questionnaire. All this guarantees high quality standards and a neutral implementation. Third, smartvote combines “standard” voting recommendations with innovative visual analyses which untangle and explain the political system to voters. However, smartvote is still far from having tapped the full potential provided by information technologies in this field.

Do we overestimate the virtue and downplay the vice of voting assistance tools? We believe that smartvote serves three fundamental principles of modern democracy: First, transparency, because the tool urges candidates and parties to reveal their issue positions to address and convince the electorate, instead of often rather vague valence positions. Second, participation, because it activates certain voter segments – those who feel uninformed or disappointed but bring along sufficient “digital skills” and a minimum amount of political interest. It is also clear that future generations will be better accustomed to the digital world, and they will call for internet tools to fulfil their civic duties. Third, accountability, because smartvote is not the endpoint but a foretaste. Future developments will link pre- with post-voting sphere and thus establish an “accountability cycle” in which pre-election pledges are systematically monitored in the legislative field. Objections risen by deliberative theorists and proponents of liberal representative approaches that too much accountability endangers both the virtue of closed-door politics and the free mandate should be taken seriously but do not seem addressing the primary deficiency of contemporary democracies, especially of emerging ones. Intelligent, innovative and sophisticated e-democracy tools combine the needs of deliberation, liberal democracy and accountability.

7 References

- Bächtiger, André (2005): *The Real World of Deliberation. A Comparative Study of its Favourable Conditions in Legislatures*; Bern.
- Boogers, Marcel (2006): *Enquête bezoekers Stembijzender (Working paper)*; Tilburg.
- Carey, John M. (2006): *Legislative Voting and Accountability (Draft manuscript)*; Hanover, NH.
- Dahl, Robert A. (1998): *On Democracy*; New Haven/London.
- de la Porte, Caroline and Nanz, Patrizia (2004): *The OMC – a deliberative-democratic mode of governance? The cases of employment and pensions*; in: *Journal of European Public Policy*; Vol. 11, No. 2; pp. 267-288.
- Downs, Anthony (1957): *An Economic Theory of Democracy*; New York.
- Dryzek, John S. (2002): *Deliberative Politics and Beyond: Liberals, Critics, Contestations*; Oxford.
- Dryzek, John S. and Niemeyer, Simon (2006): *Reconciling Pluralism and Consensus as Political Ideals*; in: *American Journal of Political Science*; Vol. 50, No. 3; pp. 634-649.
- Freyburg, Tina; Skripka, Tatjana and Wetzel, Anne (2006): *Democratisation through the Backdoor? EU Democracy Promotion in the Neighbourhood via Sector-Specific Cooperation*; Paper presented at the 1st Conference of the AK Demokratieforschung (DVPW), December 2006; Berlin.

- Jeitziner, Bruno (2004): *Wahlen im Internetzeitalter. Informationsvermittler als politische Berater von Wählern und Politikern*; in: Schaltegger, Christoph A. and Schaltegger, Stefan C. (eds.): *Perspektiven der Wirtschaftspolitik. Festschrift zum 65. Geburtstag von Prof. Dr. René L. Frey*; Zürich; pp. 47-64.
- Kies, Raphael and Kriesi, Hanspeter (2004): *Internet Voting and Opinion Formation. The Potential Impact of a Pre-Voting Sphere*; in: Trechsel, Alexander H. and Mendez, Fernando (eds.): *The European Union and E-Voting. Addressing the European Parliaments' Internet Voting Challenge*; London; pp. 147-165.
- Kuklinski, James H. and Quirk, Paul J. (2000): *Reconsidering the Rational Public: Cognition, Heuristics, and Mass Opinion*; in: Lupia, Arthur; McCubbins, Matthew D. and Popkins, Samuel L. (eds.): *Elements of Reason. Cognition, Choice and the Bounds of Rationality*; Cambridge; pp. 153-182.
- Lutz, Georg (2004): *Participation, Information and Democracy. The Consequences of Low Levels of Participation and Information for the Functioning of Democracy*; Hamburg.
- Marschall, Stefan (2005): *Wahl-o-mat Bundestagswahlen 2005. Ergebnisse der Online-Befragung*; Düsseldorf.
- Merrill, Samuel III and Grofman, Bernard (1999): *A Unified Theory of Voting: Directional and Proximity Models*; Cambridge.
- Mueller, Dennis C. (2003): *Public Choice III*; Cambridge.
- Norris, Pippa (2001): *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*; Cambridge.
- Norris, Pippa (2002): *E-Voting as the Magic Ballot? The impact of Internet voting on turnout in European Parliamentary elections*; Cambridge, MA.
- Norris, Pippa (2003): *Will new technology boost turnout? Evaluation experiments in e-voting v. all-postal facilities in UK local elections*; Cambridge, MA.
- Page, Benjamin I. and Shapiro, Robert Y. (1999): *The Rational Public and Beyond*; in: Elkin, Stephen L and Soltan, Karol Edward (eds.): *Citizen Competence and Democratic Institutions*; University Park, Pennsylvania; pp. 93-115.
- Popkin, Samuel L. (1991): *The Reasoning Voter*; Chicago.
- Rabinowitz, George and Macdonald, Stuart (1989): *A Directional Theory of Issue Voting*; in: *American Political Science Review*; Vol. 83, No. 1; pp. 93-121.
- Christin, Thomas and Schulz, Tobias (2006): *Is Consensual Politicizing Being Punished in Switzerland?*; in: *Swiss Political Science Review*; Vol. 12, No. 4; pp. 101-130.
- Schmitter, Philippe and Trechsel, Alexander H. (2004): *The Future of Democracy in Europe. Trends, Analysis and Reforms. A Green Paper for the Council of Europe*; Strasbourg.
- Snyder, James M. and Ting, Michael M. (2005): *Why Roll Calls? A Model of Position Taking in Legislative Voting and Elections*; in: *Journal of Law, Economics, and Organization*; Vol. 21, No. 1; pp. 153-78.
- Stokes, Donald E. (1963): *Spatial Models of Party Competition*; in: *American Political Science Review*; Vol. 57, No. 2; pp.368-377.
- Strøm, Kaare (2003): *Parliamentary Democracy and Delegation*; in: Kaare, Strøm; Müller, Wolfgang C. and Bergman, Torbjörn (eds.): *Delegation and Accountability in Parliamentary Democracies*. Oxford/New York; pp. 55-106.
- Strøm, Kaare; Müller, Wolfgang C. and Bergman Torbjörn (eds.) (2003a): *Delegation and Accountability in Parliamentary Democracies*. Oxford/New York.
- Strøm, Kaare; Müller, Wolfgang C. and Bergman, Torbjörn (2003b): *Challenges to Parliamentary Democracy*; in: Kaare, Strøm; Müller, Wolfgang C. and Bergman, Torbjörn

(eds.): *Delegation and Accountability in Parliamentary Democracies*. Oxford/New York; pp. 707-750.

Walgrave, Stefaan; Van Aelst, Peter and Nuytemans, Michiel (2006): "*Do the vote test*". *Electoral effects of a vote advice application at the 2004 Belgian elections*; paper presented at the ECPR joint workshop sessions, April 2006; Nicosia.