Voting Advice Applications and their Impact on Elections[*]

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ABSTRACT

Voting Advice Applications (also known as Voting Aid Applications, or VAAs) are web applications that provide voting advice by matching voters' policy views with parties' or candidates' positions. These applications consist of a database of parties' or candidates' positions on a series of issues. VAA users express their views on the same policy issues by indicating their agreement or disagreement on a series of statements. Then the application provides a personalised voting recommendation for each user. This voting recommendation is based on the calculated proximity of user's position to the position of the parties or candidates. The increased popularity of VAAs has motivated political scientists to raise a series of questions: What is the process of the selection of issues and statements and what is the effect of different issues and statements? Who decides about the position of the parties (or candidates) on these issues and statements? What are the demographic characteristics of the users of VAAs? Is there an impact of VAAs on the electoral behaviour? Using evidence from a VAA that was designed for the 2010 local elections in Greece, we present the strengths and weaknesses of VAAs and we propose ways to improve these tools.

INTRODUCTION TO VOTING ADVICE APPLICATIONS

Voting Advice Applications (VAAs), also known as Voting Aid Applications, are web applications that provide voting advice by matching voters' policy views with parties' or candidates' positions. VAAs are used during the pre-election period but they require a lot of effort during the preparation stage of the application.

In order to build a useful VAA a lot of details should be taken care of. The first step towards building a VAA is to select a series of issues that reflect the most important dimensions of political competition. Issues need to have sufficient discriminatory power, i.e. the research team should select issues on which different parties have different positions. For instance, every party and every voter would completely agree with the sentence: "Bureaucracy should be reduced". Similar sentences should be avoided.

Another detail about the selection of issues that needs special attention concerns the issues that are owned by parties. Sometimes and under some circumstances a party's position on an issue becomes very popular. If a VAA includes a lot of issues owned by a single party, this party would appear to be very close to most of the VAA users. A more general hypothesis that can be tested is that different sets of issues would favour different parties. This hypothesis was verified by Walgrave et al (2009), who have tested different configurations of 36 out of 50 statements and after comparing 500,000 configurations out of about 1 trillion configurations of 36 issues they have concluded that: "Some configurations favour certain parties, other configurations benefit other parties".

The second task of the preparation stage is to create a database of parties' or candidates' positions on these issues. The selection of the position of candidates and parties is very important

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because any errors introduced in the system during this task will affect the recommendations given in the running stage of the system. The most common practice used for the selection of the position of the parties on each of the selected issues is to analyse official texts presented to the public by the political parties. This process involves text analysis of parties' official documents, i.e. party manifestos, party websites. An alternative is to conduct expert surveys. Expert surveys are better than simple text analysis of official documents because sometimes political parties avoid clarifying their position on difficult issues in an official way. Another alternative is to ask parties or their candidates to respond to a questionnaire. In this case, the respondents may try to enter inaccurate or untrue responses in order to take advantage of the VAA and appear closer to the majority of the voters. To prevent parties from doing this, VAA organisers should require parties to provide evidence for their chosen position in their official documents. The best practice is to combine all aforementioned options and try to take the best of each alternative, as the mixed interactive method described by Trechsel and Mair (2011).

The final task of the preparation stage is the establishment of the formula that will be used to calculate the proximity of voters' positions to the positions of the parties or candidates. VAAs provide voting recommendations for pure issue voters. This means that other voting choice factors, i.e. party identification, sociological cleavages, government performance, candidate images, etc are not used in the formula. The formula is used to calculate proximity of parties and voters, thus it is a function that calculates a distance. There are various distance metrics that can be used for the formula i.e. Euclidean, city block, etc and its metric offers advantages and disadvantages (Wall et al, 2009). Another decision that should be made about the formula is related to the equal representation of all issues' in the formula. VAA organisers can use increased weighting for the most important issues into the formula. This weighting is done based on the theory that voters would prefer to vote for a party with which they agree on a limited number (say 2-3) of the most important issues even if they disagree with it on a series (say 5-6) of less important issues, than a party with which they agree on a lot of secondary issues but they disagree on a limited number of important issues.

During the running stage the users of a VAA express their views on the aforementioned policy issues. After a series of questions the application provides a personalised voting recommendation for each user. Usually the output is a ranked list of parties or candidates according to the calculated proximities.

POPULARITY OF VAAs

The literature includes numerous examples of vey popular VAAs. For the German federal election of 2009, 6,700,000 voters have used *Wahl-O-Mat* (http://www.wahlomat.de/) (Ramonaite, 2010). The aforementioned number of voters corresponds to a percentage circa 15% of the electorate. For the federal elections of 2007 in Switzerland, 938,403 voters have used *SmartVote* (http://smartvote.ch/). This figure represents about 40% of the Swiss electorate (Ladner et al., 2008). For the Dutch general elections of 2010, 4,208,400 users (45% of the electorate) have sought voting advice by *StemWijzer* (http://www.stemwijzer.nl). In the last day before the election circa 1.5 million users have used this application. Finally, for the second order elections for the European Parliament of 2009, 919422 voting advices were given by *EU Profiler* (http://www.euprofiler.eu/). The aforementioned examples of successful VAAs in various countries and elections indicate that VAAs may have some impact on a very large part of the electorate. Of course VAAs, as it happens with almost all web applications are more common among young males with higher education (Ruusuvirta and Rosema, 2009) but the digital gap of web users and consequently VAA users is closing over time (Fivaz and Schwarz, 2007).

HELPMEVOTE – A VAA AND A WEB-SURVEY

Helpmevote is a VAA created for the regional elections of 2010 in Greece as a result of a joint initiative of the Laboratory of Applied Political Research of the Department of Political Science of the Aristotle University of Thessaloniki and the Electronic Democracy Centre (e-Democracy Centre) which belongs to the Center of Democracy Aaraou (ZDA), University of Zurich.

Helpmevote contains 30 questions that are tailored to the Greek reality and the context of this election process. The questions were chosen to cover ten broad themes. Each theme consists of three questions. The topics are: 1. Law and order, 2. Economic Growth, 3. Finance, 4. Migration, 5. Environment, Energy and Transportation, 6. Education and Health, 7. Social Cohesion, 8. National Issues, 9. Relations with the EU 10. Changes to the System of Administration and Representation.

The research team evaluated all candidates using their electoral manifestos, their party identification and their public statements and tallied responses to the questionnaire. Then the research team sent the answered questionnaire to each candidate and required their comments on these answers. The team took into account the proposed changes. There were cases where candidates have not responded to the request. In these cases, the research team held the answers which have been initially attached to the candidate.

The results page of helpmevote contains photos of candidates, a short CV and links to websites of candidates (personal website, blog, Facebook pages and other social networking services). Through the use of helpmevote, Greek voters were able to calculate their proximity to all candidates and in addition they had direct access to informational material by the candidates. Thus, Greek voters were able to develop their electoral position after taking into account a lot of relevant information.

Greek citizens embraced helpmevote in a very positive way. From 18/10/2010 (formal opening of the application) until the Sunday of the election (7/11/2010) more than 28,000 users had used helpmevote to learn about the candidates. On the results page of helpmevote, users were able to follow a link and participate in a web survey evaluating helpmevote. About 5,000 people responded to this invitation. The results presented in the following sections are based on the responses of these individuals.

IMPACT ON ELECTORAL PARTICIPATION - TURNOUT

Previous VAA related publications report lower rates of abstention from the elections among VAA users. This is also observed among the users of helpmevote. Specifically, the percentage of helpmevote users who have reported that they will definitely not vote is less than 12%. Even after adding the percentage of helpmevote users who have reported that they would rather not vote, this sum does not exceed 20%. This figure is much smaller than the actual abstention rate observed for the Greek regional elections of 7/11/2010. The reduced rate of abstention among VAA users can be interpreted in two ways: The first interpretation (prevailing in the opinion of the authors of this article) is that those who do not intend to vote, have no interest for the elections and therefore they have no reason to use a VAA. On the other hand, some researchers have reported a different interpretation: VAAs help citizens learn about candidates' positions, the axes of political opposition and electoral competition. Addressing some part of the information deficit, VAAs contribute to the reduction of abstention rates. For instance, Carlson and Strandberg (2005) have reported that in Finland, VAAs are the most important source of information for young (aged 18-24) voters. Also, Ladner et al. (2008) have reported survey results indicating that 58% of the survey respondents have mentioned Smartvote

as an important source of information. Finally Ladner and Pianzola (2010) dealing with the 2007 Swiss federal elections have reported that 16% of the respondents have claimed that VAAs had motivated them to participate in the elections. Another 25% have revealed that they have been partially motivated.

IMPACT ON VOTING CHOICE

The literature includes several publications reporting evidence of impact of VAAs on voting choice. Ruusuvirta and Rosema (2009) using data from the Finnish National Election Studies have reported that more than one out of three respondents have indicated that VAAs had been at least of some importance to their vote choice. In the same article it is reported that 40% of *Wahl-O-Mat* users have stated that VAAs had helped them to make a vote choice in the 2005 federal elections. Finally Fivaz and Schwarz (2007) dealing with the 2006 regional elections in the canton of Berne have reported that 74% of VAA users have indicated that the voting advice had influenced their vote choice.

The impact of VAAs on voting depends on whether the VAA user had chosen a candidate before using the application. If voters had not chosen a candidate, then the VAA can help them learn the positions of candidates on the issues of the electoral competition and choose the most suitable one to represent them. If a citizen has chosen a candidate before using the application, then there are two possible VAA outcomes: i) either the voting recommendation is identical to voter's selection and ii) or the VAA does not propose the same candidate. In the former case, the possible influence of the use of VAA is to strengthen the user's intent to vote for the candidate who was pre-selected. In the latter case, the possible effect of VAA will be in the opposite direction, i.e. instead of strengthening, the VAA recommendation would undermine user's initial selection, and if the influence is strong enough, it can lead to a change of voter's position.

If a VAA user has selected a candidate before using the VAA, any influence of VAA depends on the degree of certainty of this selection. This statement is based on the assumption that VAA users who had pre-selected a candidate but they were not at all confident about their choice could change their opinion easier than VAA users who had pre-selected a candidate and they were absolutely sure of their choice. About six out of ten (3036 out of 4938) helpmevote survey respondents, had decided to vote for a candidate before using helpmevote. From these people who have pre-selected a candidate, 4.5% were not at all, 16.2% were a little 30.3% were somewhat, 18.3% were very and 30.7% were absolutely confident about their selection.

Undecided voters

Table 1 shows that more than 3 out of 10 helpmevote users who have not chosen a candidate before using the application, after using helpmevote started thinking of a candidate as a possible voting choice and 65% of them have reported that the contribution of helpmevote to this decision was quite, very or completely important.

TABLE 1 Number of users who have selected a candidate after using helpmevote

	Total sample		Confident to abstain	
	N	%	N	%
Have selected a candidate	591	31,1%	24	5,1%
Have not selected a candidate	1311	68,9%	443	94,9%
Total	1902	100%	467	100%

As Table 1 indicates even among the respondents who have reported that they are confident of their decision to abstain from the elections and had not chosen a candidate before using helpmevote, after using the application, about one out of 20 have reported that they consider voting for a candidate. This may be the first step towards changing their decision to abstain from the elections. This could be verified in the future by designing a survey to determine whether citizens are affected and in what degree by VAAs to change their decision to abstain from the elections.

Users who have selected a candidate

Among the 3036 respondents who had selected a candidate before using the application, helpmevote has proposed the same candidate in 1428 (47%) cases. Table 2 indicates that the rate of coincidence between the proposal of helpmevote and the prior selection of a candidate depends on the degree of confidence about the selection of the candidate. For instance, among people who were not at all sure of their choice, the coincidence rate is limited to 30.1%. On the other hand, this proportion rises up to almost 55% in the group of voters who were absolutely certain about their choice.

TABLE 2. Agreement by confidence level

	Confidence level about the pre-selected candidate									
	Not at all		A little		Quite		Very		Completely	
	N	%	N	%	N	%	N	%	N	%
Common	41	30,10%	189	38,40%	431	46,80%	256	46,10%	511	54,80%
Not common	95	69,90%	303	61,60%	489	53,20%	299	53,90%	422	45,20%
Total	136	100%	492	100%	920	100%	555	100%	933	100%

Common candidate

Among the 1428 helpmevote users who received a voting recommendation that coincides with their initial selection, 751 (52.6%) have reported that the voting recommendation has strengthened their intention to vote for the candidate whom they had already selected. This percentage varies according to the degree of certainty of their initial choice. Table 3 shows that the smallest percentage (46%) occurred among people who were absolutely sure of their choice. Among people who were very, quite and a little confident of their initial choice, the percentage of citizens who have reported that their intention is strengthened is 50.4%, 58.2% and 61.4% respectively. It seems that citizens with a lower degree of certainty about their initial choice need confirmation of their selection and found the proposal of helpmevote helpful and reassuring of their choice. This relationship is not strictly maintained in the group of people who were not at all sure about their initial selection, but this subset includes a limited number of respondents and the observed trend deviation could be due to the small number of people belonging to this group.

TABLE 3. Strengthened intention to vote the initially selected candidate per confidence level

	Confidence level about the pre-selected candidate									
	Not at all		A little		Quite		Very		Completely	
	N	%	N	%	N	%	N	%	N	%
Strengthened	20	48,8%	116	61,4%	251	58,2%	129	50,4%	235	46%
No change	21	51,2%	73	38,6%	180	41,8%	127	49,6%	276	54%
Total	41	100%	189	100%	431	100%	256	100%	511	100%

Different Candidate

As mentioned above, 53% of respondents, who had chosen a candidate beforehand, have reported that helpmevote has not proposed them the same candidate. Of those individuals 56.4% have stated that this result has not affected them at all, 28.5% have stated that they are a little affected, 13.4% have reported that they are quite affected. Finally, fewer than 2 out of 100 people who had chosen a candidate before using helpmevote have reported that they are very or completely influenced by the fact that the application has not proposed them the same candidate. Of course, how much users were affected by the helpmevote proposal depends on how confident they were of the original choice of candidate. As Table 4 indicates from 422 respondents who were absolutely sure of their choice and helpmevote have not proposed them the candidate they had initially chosen, 349 (82.7%) were not affected at all by this proposal. This percentage falls to 60.2% among people who were very sure of their choice and falls below 50% among people who were quite sure of their choice. Finally, citizens who were less certain about their choice appear to be influenced more easily. More than one out of four people who were a little or not at all sure about their initial selection were significantly affected by the helpmevote proposal.

TABLE 4. Level of affection by confidence level

| | | How much voters have been affected | | | | | |
		Not at all	A little	Quite	Very	Completely	Total
Not at all confident	N	41	28	26	0	0	95
	%	43,20%	29,50%	27,4%	0%	0%	100,00%
A little confident	N	96	116	74	14	3	303
	%	31,7%	38,3%	24,4%	4,6%	1%	100,00%
Quite confident	N	241	179	65	3	1	489
	%	49,3%	36,6%	13,30%	0,6%	0,2%	100%
Very confident	N	180	79	36	3	1	299
	%	60,2%	26,4%	12%	1%	0,3%	100%
Completely confident	N	349	56	14	2	1	422
	%	82,7%	13,3%	3,3%	0,5%	0,2%	100%
Total	N	907	458	215	22	6	1608
	%	56,4%	28,5%	13,4%	1,4%	0,4%	100%

People who have selected a candidate before using a VAA and the application has not proposed the same candidate, may display one of the following reactions: i) to keep their initial position, ii) to change their position and follow the VAA proposal and iii) to change their position towards a third choice. The maximum potential effect of a VAA is observed when VAA users follow the second reaction. For this reason the questionnaire included an explicit question of whether users to whom helpmevote has not proposed the candidates they have initially selected, are thinking to change their initial choice and follow the suggestion of helpmevote. Out of 1608 users who were not proposed the initially selected candidate, 202 (12.6%) have given a positive answer.

TABLE 5. Intention to change voting choice and follow recommendation by confidence level

	Confidence level about the pre-selected candidate									
	Not at all		A little		Quite		Very		Completely	
	N	%	N	%	N	%	N	%	N	%
Follow	29	30,5%	82	27,1%	64	13,1%	16	5,4%	11	2,6%
No	66	69,5%	221	72,9%	425	86,9%	283	94,6%	411	97,4%
Total	95	100,0%	303	100,0%	489	100,0%	299	100,0%	422	100,0%

The percentage of citizens who have reported that they are considering changing their original choice by following helpmevote proposals depends on the level of certainty of the original selection. People who were absolutely sure about their original choice do not intend to change their choice easily. In fact only 11 out of 422 people (2.6%) said they will. The proportion of those intending to change their initial choice and follow the helpmevote suggestion increases to 5.4%, 13.1%, 27.1% and 30.5% as the level of certainty of the original choice is reduced to very, quite, a little and not at all respectively.

DISCUSSION – VAAs AND POLITICAL MARKETING

VAAs can stand as a channel of communication between candidates (or parties) and voters and they can help citizens shape their electoral opinion. What does this mean for candidates, parties, and researchers with focus on Political Marketing? What are the benefits for new, small parties but also for the older, established and well known parties? How should candidates and parties interact with VAAs?

For a new, small party VAAs offer the opportunity to disseminate their positions to a large part of the electorate. New and small political parties usually have limited access to traditional media channels. Through VAAs electoral competition is evolving under the same conditions for all political parties, regardless of their size. VAA proposals are based only on the proximity of the citizens' positions to the positions of candidates (or parties). Thus, all candidates, no matter the size of their party, have equal chances to be selected by VAA users.

VAAs are not useful only for new, small parties, but also for the oldest, well-known, large or not so large political parties. Although these parties have more opportunities to make their views known through other channels of communication, this does not mean that they should ignore the power of VAAs. With the help of VAAs, political parties can reach a particular subset of the electorate who do not watch news reports, do not read newspapers, are not particularly concerned with politics, but it is possible that they will use a VAA the same way they use other quizzes on the web. Even if they are not particularly concerned with politics, they could be curious about the VAA outcome.

In the previous sections of this article it was shown that helpmevote had influenced a portion of the electorate in shaping the electoral position. This may tempt some candidates or parties to try to exploit VAAs to their advantage. This can be done in two ways: The first is compatible with legitimate political marketing tools and it is related with "improvements" of election manifestos. For instance, in Belgium in 2003 the socialist party changed its long standing manifesto position after a massive majority of VAA users agreed with restricting the rules on parole for convicted felons (Hooghe and Teepe, 2007). Another reported example can be found in Netherlands where a party's marketing team made enquiries to VAA providers on issues that will appear in future applications, in order to write VAA-optimized election manifesto

(Wagner and Ruusuvirta, 2009). These efforts may be successful and beneficial for the candidates and the parties, because the changes made to the positions of candidates (or parties) are not temporary and opportunistic, they are limited and compatible with the rest party positions and they do not significantly change the character of the candidate or party.

The second way is to try to manipulate VAAs. For instance, Ramonaite (2010) reports a party in Lithuania that has given responses with absence of ideological consistency. This practice is not at all sure that it is profitable. On the contrary, it can be detrimental to the candidate or party. For example, what could be the benefits for a far-right party known to everyone that it carries the ideological flag of an extreme negative attitude towards immigrants, trying to appear through the VAA as having a moderate immigration policy? The authors of this article argue that in such a case the party is more likely to shake the confidence of its voters because of impure positioning towards the issue that interests them more, than to win a voter who will immediately understand the feasibility of emerging placement. But testing this hypothesis is beyond the purposes of this paper.

In conclusion, VAAs are useful tools that can be used to inform citizens about the positions of candidates and parties on important issues of electoral competition and political conflict, and therefore VAAs help people shape their electoral choice. VAAs can help undecided voters to choose candidates and may even influence voters who have chosen a candidate by proposing the same candidate and affirming their initial choice, or undermining their confidence in their initial selection by proposing a different candidate. There are also indications that VAAs can lead to a reduction of abstention rates. The role of VAAs will continue to grow in the future as internet use increases. For this reason, candidates, parties and political marketing specialists need to remain in touch with the developments in the field of VAA research.

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