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**Picking Your Party Online - An investigation of Ireland's first online voting advice application.**

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**Abstract**

Online voting advice applications (VAAs), which help voters to decide in elections, have become commonplace in many European countries. However, their use and reliability is under-researched. This paper analyses the data generated by a VAA deployed in the run-up to the May 2007 general election in Ireland. The website was designed to allow users to compare their own placement on a number of policy dimensions with those of the main parties competing in the election. We compare the users of the website to the population in terms of their overall demographic characteristics and policy preferences, and examine the extent to which the advice issued by the website corresponded to users' stated voting intentions. The findings indicate that the VAA attracted users that were not representative of the wider population. Furthermore, we find that the supporters of the two main centre-right parties in Ireland (Fianna Fáil and Fine Gael) were less likely to be correctly identified by the application than supporters of the other parties. While VAAs offer the potential to improve the quality of democratic participation, the findings reported here also highlight a number of important challenges.

**Keywords:** Online Survey, Voter Advice Applications, Irish Politics.

## 1 Introduction

Voting advice applications (hereafter VAAs) are among the most significant political innovations involving the internet that have emerged to date. Typically, VAAs elicit information from users regarding their policy preferences, compare this to the policy positions of political parties or candidates, and on this basis issue voting advice to the user. A recent survey (carried out in 2007) found that VAAs had been set up for general elections in 15 European countries, often with very high levels of citizen participation [17]. Proponents of these websites argue that they have the potential to improve the quality of democratic participation by making it easier for voters to become informed about the policy positions of political parties. However, to realise this potential, it is essential that VAAs produce advice that is reliable and unbiased. Furthermore, it is desirable that they are accessed by a broad cross-section of society, and not just individuals from one side of the political and social spectrum.

This study provides one of the first empirical assessments of a VAA. The focus is on a VAA launched by the authors in the run-up to the 2007 Irish general election, [www.pickyourparty.ie](http://www.pickyourparty.ie) (hereafter PYP). As well as providing voting advice based on user's policy preferences, this website included a short questionnaire to gather information on users' backgrounds and voting intention. Two questions in particular are addressed in this paper. Firstly, we investigate whether and how users of the site differed from the general population in terms of demographic characteristics, attitudes and party support. As the PYP website attracted a large number of visitors, it provides an excellent opportunity to study online political engagement in contemporary Ireland.

Secondly, we evaluate the advice issued by the PYP website. Previous research on the accuracy and reliability of VAAs has examined the extent to which votes prescribed by the VAAs corresponded to the *aggregate* electoral outcomes [15]. However, given the demographic and political profile of users of VAAs, real election results are not an appropriate benchmark for evaluating the accuracy of voting advice applications. In a departure from existing research, we test for bias in the PYP site by comparing the advice it issued to users with those users' stated voting intentions. We examine whether the advice issued tended to favour some parties over others. We find convincing evidence that this was the case with the PYP website and discuss these findings in the light of the rather unique dynamics of the Irish party system. Furthermore, we retrospectively assess several alternative methods of aggregating user's policy preferences across issues to produce voting advice.

As well as contributing to research on online democratic engagement and VAAs, this research also speaks to the broader debate on the empirical validity of the spatial literature on party competition and voter cognition; a mode of analysis that has a venerable lineage in political science, spanning back to Downs' seminal contribution [5]. The spatial model of voting assumes that voters choose the candidate or party that they believe is closest to them in policy terms. We contribute to this literature by assessing the relationship between policy preferences and voting intention among PYP users. Ireland arguably represents a stern test of the spatial model of voting, given that traditional modes of ideological differentiation have been marginalised in the Irish party system, with the two major parties occupying a near-identical location in the policy space [11].

The following section describes the spread of VAAs in recent years, and discusses their potential in terms of democratic participation. Section 3 reviews existing research on the topic, and the following section describes the PYP website in detail. Sections 5 to 7 focus on the empirical analysis, including a comparison of PYP users and the general population; an evaluation of the advice issued by the PYP website; and an examination of alternative methods for producing voting advice based on users' policy positions. The paper concludes by discussing the potential of VAAs for improving the quality of democratic participation in light of the empirical findings.

## **2 Voting Advice Applications**

The PYP website represented the first instance of a VAA being deployed for an Irish general election. However, in countries such as Iceland and the Netherlands such websites have been available since the mid 1990s [17]. These websites have often become a central part of the election campaign, attracting intense media and public interest, and occasionally generating heated political debate [7]. In the Netherlands (where VAAs were pioneered), one such website attracted 4.7 million visitors during the 2006 election campaign. Similarly, a German voting advice website had over 5 million visitors in the run up to the 2005 election<sup>1</sup>[17]. Other countries in which VAAs have become an established element of election campaigns include Switzerland, Finland and Belgium.

VAAs are popular partly due to their entertainment value (users may simply use them to see if it confirms their existing preference, rather than to help them decide).

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<sup>1</sup> It should be noted that the meaning of these figures in terms of how many individuals visited the site has been called into question. It is impossible to distinguish unique users of these websites – many people will use them several times. Surveys have shown that the average user generates between two and four voting recommendations [6].

However, growing dealignment in western democracies has created greater demand for information on party positions [3]. It is perhaps not surprising that the countries in which VAAs have been most successful (such as the Netherlands) have highly fragmented party systems, making information-gathering particularly costly for voters. In contrast, VAAs have not taken off in countries such as the UK where there are a small number of parties to choose from.

While all VAAs link the user's preferences with the preferences of parties or candidates, a variety of methods are used to achieve this. The most common approach is to ask the user to respond to a series of Likert items related to specific political issues (in the form of 'How do you feel about the following statement...'). There are usually between 30 and 70 such questions. The users' responses are then compared to information about the parties' positions on these issues. Often, the information on party positions is based on an analysis of party manifestos (e.g. the 'Electoral Compass' websites). Alternatively, parties or candidates are asked to respond to the Likert items themselves (e.g. the 'Smartvote' website in Switzerland), and then voters can compare their answers with those of the politicians. Users are also typically asked to indicate which issues are most important to them. An algorithm is then used to determine the proximity of the user to each party/candidate, and the results are presented.

Due to their informational function, VAAs have the potential to play a crucial role in democratic participation. A central idea in democratic theory is that voters base their decision at least partly on their perception of how close a candidate is to their preferred position [5]. If large numbers of people are uncertain as to the policy positions of the candidates, this is potentially damaging to the democratic process. Indeed, it is often very

difficult for voters to get this information: research on election campaigns has shown that parties often ‘talk past’ each other, focussing only on the issues that they are more comfortable with, rather than engaging in debates on particular issues [8]. VAAs have the potential to provide a much-needed shortcut to important information on party positions.

While VAAs have the potential to improve democratic participation, this potential can only be fully realised if they are used by a broad spectrum of the population. If the typical users of VAAs are drawn from a narrow segment of society, as has been noted in studies of online activity more generally [4], then the added value of these applications is limited. A more serious issue concerns the reliability of the advice given by VAAs. This question was raised by the Belgian Christian Democrats who recently campaigned against the use of these websites [7]. They claimed that VAAs would lead to a populist approach to politics, as they reduced complex political issues to simple yes/no responses. Others have questioned the neutrality of these websites [17]. The use and reliability of VAAs is the focus of the present study.

### **3 Previous Research**

Research on VAAs is very much in its infancy. Part of the reason for this is that many of these sites are owned by private media companies, who have been reluctant to release data to researchers. Some studies have focused on the impact of VAAs on voting behaviour [17, 6], which is beyond the scope of the present paper. In terms of usage, existing studies have found that the typical VAA user is young, male, urban-based, relatively affluent, interested in politics, and to the left of the political spectrum [17, 6, 9]. However, where

VAAAs have been in place for several years, these imbalances have tended to be reduced over time, as their use spreads to the wider population [9].

Some research has also been conducted on the quality of these applications in terms of the advice they give. This type of research aims to establish whether such applications can genuinely contribute to users' political knowledge. The evidence to emerge so far is quite negative in this respect. Van Praag [15] examines voting advice given by a number of VAAAs in the Netherlands. He finds dramatic differences in the voting advice issued in adjacent general elections. For instance, 11% of users were advised to vote for the Christian Democrats in the 2002 election; the figure was down to 3% in 2003; and in 2006 it jumped to 15%. Such variation may point to the unreliability of the VAAAs. Furthermore, he finds that only 43% of users received the same advice from different VAAAs.

Walgrave *et al.* [16] argue that the primary reason for this inconsistency is the selection of issue statements that are used to determine the policy position of users. Specifically, they argue that careless and non-systematic statement selection leads to unreliable results which structurally benefit some parties at the expense of others. Certain statements will tend to benefit particular parties who 'own' these issues (for instance, if a large number of statements relate to the environment, Green parties are likely to do well). Evidence for the biased nature of VAAAs provided by Walgrave *et al.* [16] is based on a comparison of the advice issued by a Belgian VAA with real election outcomes.

The findings on the reliability of these applications, combined with their potential impact on democratic outcomes, suggest that VAAAs' design should be subject to close scrutiny. However, comparisons of the aggregate advice issued by these websites with



aggregate electoral outcomes are a flawed method for such scrutiny. As we demonstrate in Section 5, users of VAAs can be substantially different from the general public in terms of demographic make-up, issue-preferences, and partisan preferences. In the end, the neutrality of these applications can only be tested by the compatibility of the advice they give with the stated political preferences of users.

#### **4 The 'Pick Your Party' website**

The 'Pick Your Party' website was launched two weeks prior to the 2007 Irish general election. In common with other VAAs, the core of the website was a series of questions designed to determine the position of users on relevant policy matters. As discussed above, the selection of statements or questions is crucial for the output of any VAA: they should be politically relevant, diverse, representative, and should separate parties [17]. The PYP website used a small number of broad issue-dimensions rather than a large number of specific issue-statements. These dimensions (and the parties' position on them)<sup>2</sup> were taken from the Benoit-Laver expert survey [1]. In constructing their survey Benoit and Laver sought to identify all major dimensions of political competition in each polity surveyed, including both general cross-national dimensions (such as taxation and environmental policies) and issues specific to individual countries (such as the Northern Ireland question in the Irish survey).

This approach reduces the potential for bias being introduced by the application designers in terms of statement selection and phrasing. However, it also raises other potential problems. The use of policy dimensions necessitates a larger scale than the simple

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<sup>2</sup> The parties' positions were estimated using their mean placement on each issue in the Benoit – Laver expert survey, which was carried out in 2002/3 [1].

Yes/No (or even five-point Likert scale) responses to statements. This creates a greater potential for differential item functioning (where different users perceive the meanings of the scales in fundamentally different ways) when dealing with broad dimensions of political competition than when dealing with more narrow issue questions.

The PYP website presented voters with a standard internet-based questionnaire divided into two sections. Section 1 elicited users' positions in relation to seven policy dimensions: Taxes and Spending, Social Policy (divided into two parts: attitudes towards abortion and homosexuality), EU Enlargement, EU Strengthening, Environment, Immigration, and Northern Ireland. These dimensions were taken verbatim from the Benoit-Laver survey<sup>3</sup>. For each dimension, users of the website were shown a 20-point scale on which they were asked to indicate their position. Figure 1 shows one of the questions from Section 1 as it appeared on the website. Appendix 1 describes all 7 policy dimensions used in this section of the website.

**FIG. 1 ABOUT HERE**

Users were then asked to rank the issue dimensions from 1 to 7 in terms of their importance. When the user had entered this data they were informed which party was 'closest' to their position on each dimension and which party was closest to them overall.

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<sup>3</sup> Two additional dimensions used in the Benoit-Laver survey were excluded from the website: a general 'Left-Right' dimension and a 'Decentralisation' dimension; 'Left-Right' was excluded on the grounds that it explicitly combines numerous issues and was difficult to compare to the more specific dimensions in constructing an aggregate proximity score for users. 'Decentralisation' was excluded on the grounds that it might prove confusing to users, as there had been much discussion in the Irish media of the government's scheme to decentralise the civil service (by relocating offices and staff from urban to rural areas) whereas the dimension as measured by Benoit and Laver concerned the extent to which political power should be delegated from national to regional authorities [1].

The latter output was determined by the party which had the lowest total (summed) distance from the user on their top three ranked policy dimensions.

Section 2 of the online questionnaire comprised general demographic questions and two questions about vote intention and last cast vote. These questions are listed in Appendix 2. The survey was anonymous, and users did not have to fill in this section in order to receive voting advice. The website also contained a note explaining the Irish electoral system for users' benefit.

The project team sought to publicise the presence of the website as widely as possible, deploying a press release and making appearances on local and national radio programs to explain the purpose and operation of the site. The website also gained popularity in web-specific platforms including chat rooms, blogs and discussion forums. In total more than 30,000 people visited the website. Thus PYP was not only an exercise of informed voting but also an exploration of online citizen participation in contemporary Ireland.

## **5 Comparing the Users of Pick-Your-Party to the General Public**

We investigate the patterns in usage of the PYP site by comparing the demographic characteristics of the website users to the population as a whole, and by comparing the policy preferences of the website users to the policy preferences of respondents in a representative national survey. In the analyses that follow we employ a somewhat parsed version of the original dataset generated by the PYP website. While the website received over 30,000 visits, this number is likely to include a large number of repeat visitors. To

ensure that each individual user is counted only once, we only include fully completed surveys (including both Section 1 and Section 2 of the website). Given that users did not have to fill in Section 2 of the website in order to receive voting advice, it is unlikely that repeat users filled this section in again. The number of cases included in the analysis is 3,767.

Table 1 compares the characteristics of those users of the PYP site with the general population (using census data). PYP users were more likely to be male, although female users comprised over 40% of the sample. There is also evidence that older citizens are less inclined to use VAAs than other segments of the population, as only approximately 5% of the sample was 55 or over compared to over 20% of the population. On the other hand, the 25-34 age bracket is significantly over-represented in the group of PYP-users compared to their share of the population. With regards to the location of users, it appears that rural citizens are under-represented, while urban users from large cities are over-represented.

**TABLE 1 ABOUT HERE**

It is also important to look at the political orientations of users of the PYP site and to investigate whether they are divergent from those of the general population. We are able to do so due to the existence of a national-level representative survey, the 2007 Irish National Election Study (INES) [14], which was carried out during the same time period as the PYP website was online, and asked comparable questions on several issues. To make the results collected on the PYP site comparable to the INES data, we rescale the PYP opinion data onto an 11 point scale, with 0 as the minimum, 10 as the maximum and 5 as the centre point. The mean positions of both sets of respondents are listed for comparison in Table 2. We compare the group of online users to the representative sample from the INES survey with

regard to their opinions on the following dimensions of political competition: taxation and spending, abortion and homosexuality, the environment, EU strengthening, and the political status of Northern Ireland. Differences in the mean position of the two groups are shown in the final column of the table; with significance values calculated using a t-test for equality of means.

#### **TABLE 2 ABOUT HERE**

The largest difference between the groups is on social policies; with the PYP respondents being significantly more liberal with regards to their preferred policies on both abortion and homosexuality. The PYP respondents were also more concerned about environmental protection than INES respondents, and more opposed to British presence in Northern Ireland. The INES group was slightly more in favour of further EU strengthening than the PYP group, though both can broadly be classed as centrist on this issue. Interestingly, the INES respondents were nearly a full point to the *left* of the PYP group when it came to their stance on taxes and spending. The comparability of the questions on taxes and spending is open to debate however, as the INES survey explicitly mentions spending on health, while the PYP survey does not. In the context of an election campaign dominated by discussions of perceived failings in the existing health service a question mentioning health spending specifically may not be directly comparable to one that does not [2].

Given the differences in the demographic profile and policy orientations of PYP users compared to the general public, an election involving only PYP users would have produced dramatically different results from those recorded in the real election. This can be demonstrated more directly by examining the stated voting intention of PYP users. Six main

parties contested the 2007 general election in Ireland. Of these, the two largest parties are Fianna Fáil and Fine Gael, and they are both situated towards the centre-right of the political spectrum. They were joined on the right by the Progressive Democrats<sup>4</sup>, a small liberal party. The Labour Party is the main party on the left, but its support base has traditionally been small relative to Fianna Fáil and Fine Gael. The other parties are Sinn Féin, which is primarily focused on the unification of Ireland but has strong socialist leanings, and the Green Party.

Table 3 summarizes the responses of PYP users to the question: 'Which party do you intend to vote for in the upcoming general election?'. We can see that Labour and especially the Greens are far more supported among PYP users than they were in the general election. The Progressive Democrats also had (proportionately) more supporters online than at the polls. The major parties in the Irish system, Fianna Fáil and Fine Gael, on the other hand, are significantly less supported by PYP-users than by the electorate, particularly Fianna Fáil. Sinn Féin voters are also under-represented among PYP users. At the aggregate level, the political system described in the second column bears little resemblance to the system in the first.

### **TABLE 3 ABOUT HERE**

The findings presented in this section indicate that users of the PYP website, and by implication users of political websites in Ireland more generally, differ from the wider population in a number of respects. Specifically, they tend to be younger, more urban, and more left-leaning with respect to issues such as social policy and the environment. They are

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<sup>4</sup> On November 8<sup>th</sup> 2008 the Progressive Democrats party congress voted to disband.

also more likely to support smaller and more left-leaning political parties than the general population.

## **6 Assessing the reliability of the Pick-Your-Party website**

In the previous section we outlined the demographic and opinion profile of the respondents to the PYP website and compared them to those of the general public. In this section we evaluate the quality of the voting advice issued to PYP users. Existing research has evaluated VAAs by comparing the proportion of advices issued for each party with actual election outcomes [16]. As the previous section makes clear, such a comparison is misleading, as VAA users are not representative of the general public. Instead, we evaluate the PYP advice by comparing it to users' stated vote intentions.

First, it should be noted that discrepancies between voting advice and voting intention are to be expected. After all, the purpose of VAAs is to enable users to make a more informed decision. Furthermore, voters often incorporate a range of non-policy related considerations in their voting decision. This is particularly true in the Irish case. Research into voting behaviour in Ireland has concluded that 'the roots of stability in Irish party preferences lie more in general attachments to parties, for the most part transmitted down through the family, than through enduring patterns of social cleavage or through sets of values, or ideologies' and that 'the sort of mechanisms than can account for short-term change are not policy disagreements but rather on more general evaluations of the relative competence of parties and their leaders to govern effectively' [13]. Also, the Irish electoral system of Single Transferable Vote Proportional Representation (PR-STV) means that the object of electoral choice is the candidate rather than the party, and research has

demonstrated that the personal qualities of the candidate are a significant factor in Irish voter calculus [12].

Nevertheless, we argue that an unbiased VAA should offer advice that corresponds to some degree with users' stated voting intentions. For instance, if supporters of a centrist party are advised to vote for a radical party, this indicates that there may be something wrong with the way in which advice is generated. In comparing two methods of calculating voting advice, the method which produces advice which most closely matches users' voting intentions can be considered superior. More importantly, there should not be systematic differences between voting advice and the voting intention of users across parties. If certain parties are significantly under- or over-represented in the voting advice when compared to users' voting intentions, this may indicate a bias in the operation of the application. We therefore compare the advice issued by the PYP website and users' expressed voting intentions. We shall refer to this as the ability of the website to 'predict' vote intentions.

Table 4 examines the relationship between voting advice issued by PYP and users' stated vote intentions at the aggregate level. The most striking finding is that support for the smaller parties (particularly Sinn Féin) was over-predicted by the PYP application at the expense of the two major parties in the Irish system, Fianna Fáil and Fine Gael. While nearly 50% of PYP users stated that they intended to vote for either Fianna Fáil or Fine Gael, the website suggested these parties to under 20% of users. In contrast, 16.8% of users were advised to vote for Sinn Féin, while only 5% of those users intended to do so.

**TABLE 4 ABOUT HERE**



Next, we turn to individual-level analyses. Table 5 shows the proportions of users for which there was a match between voting advice and voting intention, grouped by party. We note here that with 6 parties to choose from there is a 16.6% chance of randomly guessing somebody's vote choice. Looking at the figures for Fianna Fáil and Fine Gael it is evident that our methodology was a very poor predictor of users' vote intentions when it came to these two parties. Simply put, a totally randomised approach would have generated more successful predictions for advocates of these two parties than the methodology used by PYP. With regards to the Progressive Democrats, the site's performance was slightly better at just over 20%. The site was rather more successful at correctly identifying Green voters; indeed Green voters represent nearly 40% of the total of 'correct' predictions of the website. The site also performed reasonably well with regards to Labour and Sinn Féin voters.

**TABLE 5 ABOUT HERE**

Overall, the evaluation of the quality of the voting advice issued by the PYP application is not straightforward. A correspondence of 26.6% between the voting advice and user's stated vote intentions is not a particularly striking figure, given the amount of information received from citizens on their policy positions, and taking into account the chances of randomly correctly guessing the correct answer. However, as mentioned, neither vote decisions, nor political preferences generally, are shaped solely by ideological congruence – there are numerous socio-cultural influences at play, as well as evaluations of the personal competencies of the parties' candidates and strategic considerations on their likelihood to participate in government among other factors.

More problematic is the fact that the methodology deployed seems to have favoured smaller fringe parties at the expense of the large mainstream parties. One explanation for this is that the parties that are most poorly predicted, Fianna Fáil and Fine Gael, have largely eschewed ideological confrontation and occupy nearly indistinguishable positions on most dimensions of competition - apart from the Northern question [11]. These parties also sit towards the centre of nearly every policy dimension, with the smaller parties flanking them on the left and right. It may simply be the case that these parties, by their nature, militate against VAAs having significant success in identifying their supporters.

## **7 Comparing Metrics and looking for improvements.**

Our approach allowed citizens to directly place their opinions, over a small number of issue dimensions, on the same scales as experts had placed parties and to compare the results. The previous section has shown that there were systematic differences between the advice produced by the PYP website and users' stated voting intentions. As noted, these discrepancies may simply indicate that policy considerations are not always to the fore in voting decisions, particularly in the Irish case. However, it is also possible that these differences were due to the way in which the policy proximity between PYP users and parties was calculated. In this section we consider some alternative approaches to constructing a distance score with the type of data generated by the PYP site and evaluate the effectiveness of these approaches *post hoc*.

There is something of a debate in the political science literature regarding the most appropriate type of geometry for mapping distances over multiple dimensions into a single distance score. There exist an infinite number of possible geometries for combining multiple

dimensions into a set of points and distances [1]. Here, we consider two of the more commonly used metrics: 'city block' and Euclidean. The method for combining multi-dimensional distances into a single score used by the PYP site was the 'city block' metric, where the total distance between two positions (say, the position of a voter and the position of a candidate) is calculated as the sum of absolute distances on each dimension. Euclidean geometry, on the other hand is far more prevalent in the formal political science literature on spatial behaviour. The Euclidean distance metric is calculated by finding the square root of the sum of squared distances over all dimensions. However, the use Euclidean geometry in that literature is often justified for functional and/or mathematical reasons and not on the basis of its applicability to the reality of human cognition [1]. Psychologists have found that, in the study of human difference perceptions, dimensions along which differences are measured tend to be either separable (can be assessed independently of other dimensions) or integral (cannot be easily separated). The city block fits better for separable issues and the Euclidean approach for integral issues [1]. Given that the issues measured in this data are neither entirely separable nor integral *a priori* we test both metrics.

Another decision made in constructing the PYP site involved the number of issue dimensions to be used in constructing an overall distance score. We chose to consider the three issues that were ranked most important by users in order to avoid using issues that they were not overly concerned with to estimate their closeness to a given party. In this section we calculate the results that would have been generated by using distances on all issue dimensions, regardless of the importance attributed to them by users. We also consider the implications of taking only the most important issue for each user into account when identifying the closest party.

Table 6 compares the success of each of these alternative methods of generating voting advice in terms of their ability to correctly identify vote intention. It is clear that the method employed in the PYP project (Top 3 Issues, City-Block) was not optimal as a predictor of vote intention. It was, in fact, the second worst in terms of overall accuracy, and only performed better than the function that solely considered the most important issue dimension. In terms of the type of metric employed to calculate the distances, there is little difference in terms of the proportion of correctly predicted parties, with the Euclidean metric marginally more successful.

#### **TABLE 6 ABOUT HERE**

With regard to the number of dimensions considered in constructing an overall 'score' for each user, it seems that by only considering the three most important issue dimensions, the project generated less accurate vote predictions than if all issues had been considered. All of the metrics considering all dimensions outperformed those that sought to limit the number of dimensions considered. The best overall metric was Euclidean distance on all issues; this generated correct predictions for almost one-third of users. The metric that only considered the most important issue generated an overall percentage of correct predictions is only slightly better than random chance.

The cross-party patterns of correct predictions are relatively stable across the different metrics employed. There is a general pattern of poor prediction for Fianna Fáil and Fine Gael, although there was a significant improvement in successful prediction of Fine Gael voters when only the most important issue was considered. However, looking at the other parties' predictions when considering the most important issue only, we see that Fine Gael's

improved prediction comes at the expense of accuracy of prediction for the other parties. Overall, the Greens were by far the best predicted party across the various metrics – as a party they are well suited to this kind of exercise, being relatively coherent ideologically across most dimensions and occupying a distinctive position on their ‘core’ dimension (the environment).

## **8 Conclusions**

This research points to the remarkable potential of the internet as a source of political information and a facilitator of political participation. The VAA discussed here was live for only 2 weeks prior to the 2007 Irish general election, and had over 30,000 visitors in this time. The primary purpose of the site was to allow voters to benefit from scholarly research on the policy positions of the Irish political parties and to compare these parties’ positions to their own. However, the findings of this study suggest that the potential of such tools to improve the quality of democratic participation is somewhat constrained.

Firstly, the users of online technologies differ substantially from the general population. The messages and information in online applications appear to be more likely to be consumed by urban than rural, younger than older, male than female. We demonstrated that, as well as being different from the population in terms of demographics, the users of PYP differed significantly in terms of opinions on a range of issues as well as partisan orientation. Thus, if VAAs do influence voting behaviour, this influence is unlikely to be spread evenly across the population. Whether these differences will structure future VAA use in Ireland remains to be seen. It is possible that the population of VAA users will come to be more representative of the population as such instruments become more familiar.

Secondly, the effectiveness and reliability of these applications is open to question. Looking at the operation of a Belgian VAA, Walgrave *et al.* ask ‘What is the value of the advice voters get? Is it a “good” and reliable hint for voters to follow or is it (...) at most an entertaining game producing random and messy advice?’ [16]. We defined reliability in terms of the ability of a VAA to ‘predict’ the vote intention of users (i.e. to issue advice that matched with stated vote intention). With regards to the PYP site, vote intention was correctly predicted for only 26.6% of users. More worryingly, the site was a far better predictor of support for some parties than others. Our analysis indicates that the site favoured small ideological parties at the expense of large centrist parties at the aggregate level, and that it was far better at identifying individual supporters of small parties correctly. This finding may be somewhat attributable to the unique dynamics of policy competition in the Irish system – where scholars have struggled to find a policy-based differentiation between the two major parties [11]. However, it may also be the case that VAAs are systematically biased against centrist parties. Future research should address this question in the context of other VAAs in other countries.

Naturally, there are many different ways to produce voting advice based on individuals’ policy preferences. We find that the best methods are those which take into consideration a broad range of issues. Such methods produced advice which more closely resembled individuals’ stated voting intentions compared to methods which simply examined preferences on the most salient issues. However, none of the methods explored here could completely remove the bias against centrist parties.

The tendency to over predict a certain type of party at the expense of another type poses significant political and ethical questions about this type of project. Of course, relatively few voters will base their decision on VAA output; however, VAAs have been shown to have some influence on vote choice [17]. As such, it is important that VAA designers should be extremely circumspect and transparent in their operation. There is something of a difficult balance to maintain here – a site that is long on technical detail will arguably be less successful in engaging users. However, such sites should be clear on the politically relevant factors that they fail to consider as well as being open on the sources of the positional data that they use. They should also avoid presenting their results as ‘advice’, and instead emphasise that the results should be considered in conjunction with information drawn from more traditional sources. By maintaining an open approach VAAs can maximise their potential as informational vehicles and minimise the risk of their politicisation.

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## Tables and Figures

**Table 1. Demographic characteristics of Pick-Your-Party users compared to the population**

	Percentage of PYP users (n=3,767)	Percentage of Population
<b>GENDER</b>		
Male	62.65	50.03
Female	37.35	49.97
<b>AGE GROUPS</b>		
0-15*	1.38	20.38
15 – 24*	18.48	14.93
25 – 34	46.77	17.03
35- 44	20.36	14.71
45– 54	8.36	12.31
More than 55	4.65	20.64
<b>LOCATION</b>		
Urban	52.2	29.2
Town/small city	19.83	31.5
Country village	9.85	7
Farm/ countryside	18.10	32.3

Note: population data taken from Irish Central Statistics Office (CSO 2006)

\*The PYP website categories were 0-17 and 17-24.

**Table 2. Comparing Responses of Irish National Election Study and Pick-Your-Party users.**

	<b>INES</b>	<b>PYP users</b>	<b>Mean difference</b>
EU Strengthening	4.88 (.074) N=1209	5.07 (.042) N=3767	+0.19*
Environment	3.85 (.069) N=1239	3.03 (.034) N=3767	-0.82**
Taxes vs Spending	3.51 (.066) N=1247	4.31 (.032) N=3767	+0.80**
Northern Ireland	4.67 (.073) N=1341	3.57 (.040) N=3767	-1.10**
Abortion	4.93 (.094) N=1346	3.63 (.050) N=3767	-1.30**
Homosexuality	4.31 (.090) N=1154	2.36 (.045) N=3767	-1.95**

Note: Figures indicate mean score of respondents on scale from 0-11. Standard errors in parentheses. INES 2007 data-file has a different number of respondents for each question. Significance calculated using two-tailed t-test for equality of means. \*p<0.05. \*\*p<0.01

**Table 3: Comparison of Election Results of 2007 and Pick-Your-Party users' vote intentions**

	Election Outcome 1 <sup>st</sup> Pref. Vote Shares	Vote intention of PYP users (n=3767)
Fianna Fáil	44.6%	25.9%
Fine Gael	29.3%	23.5%
Labour	10.8%	19.0%
Progressive Democrats	2.9%	5.2%
Green Party	5%	21.5%
Sinn Féin	7.4%	4.9%
Total	100%	100% (3,767)

Note: vote proportions are adjusted to exclude independents and 'others'

**Table 4: Aggregate comparison of voting advice issued to Pick-Your-Party users and users' stated vote intentions**

	Voting advice issued	Voting intentions
Fianna Fáil	9.4% (355)	25.9% (977)
Fine Gael	11.0% (415)	23.5% (884)
Labour	27.8% (1,046)	19.0% (717)
Progressive Democrats	7.2% (270)	5.2% (195)
Green Party	27.8% (1,048)	21.5% (808)
Sinn Féin	16.8% (633)	4.9% (186)
Total	100% (3,767)	100% (3,767)

Note: figures indicate the percentage (number) of PYP users.

**Table 5: Individual-level comparison of voting advice and users' stated vote intentions**

Voting intention	Percentage (number) of users advised to vote in accordance with their stated vote intention
Fianna Fáil	15.3% (149/977)
Fine Gael	13.6% (120/884)
Labour	30.7% (220/717)
Progressive Democrats	21.2% (42/195)
Green Party	48.9% (395/808)
Sinn Féin	40.9% (76/186)
Total	26.6% (1,002/3,767)

**Table 6. Comparison of alternative methods of calculating policy distances between individuals and parties.**

	Fianna Fáil	Fine Gael	Labour	Progressive Democrats	Green Party	Sinn Féin	Total
Euclidean Distance (all issues)	13.2	13.7	39.9	18.5	63.4	36.0	30.55
City-block (all issues)	11.26	13.6	38.1	21.0	63.9	41.4	30.18
Top 3 Issues (Euclidean)	15.2	15.3	32.8	21.0	50.7	35.5	27.48
Top 3 Issues (city block)*	15.3	13.6	30.7	21.2	48.9	40.9	26.60
Top Issue Only	12.1	31.56	11.72	25.64	26.98	15.59	20.65

Note: Figures show the percentage of cases for which the voting advice, as calculated according to each method, matched the stated vote intentions of the PYP users.

\*This method was used in the PYP website.

Fig. 1. The Pick-Your-Party questionnaire's online appearance.

Irish Elections 2007

## Section 1: The elections

What is your position on the following issues?

### Issue 1 - Taxes and Spending

In favour of raising taxes to increase spending on public services

In favour of a middle ground on this issue

In favour of cutting spending on public services to cut taxes

1  2  3  4  5  6  7  8  9  10  10.5  11  12  13  14  15  16  17  18  19  20

(Don't know)



**Appendix 1: Issues and Scales deployed by the Pick-Your-Party website (included in Section 1 of the website)**

<b>Issue</b>	<b>Scale position</b>	<b>Meaning of scale</b>
Issue 1 Taxes and Spending	1	In favour of raising taxes to increase spending on public services
	10.5	In favour of a middle ground on this issue
	20	In favour of cutting spending on public services to cut taxes
Issue 2 (two parts) Social Liberalism	1	In favour of liberal policies on abortion
	10.5	In favour of a middle ground on this issue
	20	Opposed to liberal policies on abortion
	1	In favour of liberal policies on homosexuality
	10.5	In favour of a middle ground on this issue
	20	Opposed to liberal policies on homosexuality
Issue 3 EU Enlargement	1	In favour of the extension of the EU to include new member states
	10.5	In favour of a middle ground on this issue
	20	Opposed to the extension of the EU to include new member states
Issue 4 EU Strengthening	1	In favour of a more powerful and centralized EU
	10.5	In favour of a middle ground on this issue
	20	Opposed to a more powerful and centralized EU
Issue 5 Environment	1	Support the protection of the environment, even at the cost of economic growth
	10.5	In favour of a middle ground on this issue
	20	Support economic growth, even at the cost of damage to the environment
Issue 6 Immigration	1	In favour of policies designed to help asylum seekers and immigrants integrate into Irish society
	10.5	In favour of a middle ground on this issue
	20	In favour of policies designed to help asylum seekers and immigrants return to their country of origin
Issue 7 Northern Ireland	1	Opposed to permanent British presence in Northern Ireland
	10.5	In favour of a middle ground on this issue
	20	In favour of permanent British presence in Northern Ireland

## Appendix 2: Questions included in Section 2 of the Pick-Your-Party website.

1. Gender (Male/Female)
2. Citizenship (Irish/Other EU/Non-EU)
3. Age group (-17; 17-25; 25-34; 35-44; 45-54; +55)
4. Which phrase best describes the area where you grew up?
  - A big city
  - The suburbs or outskirts of a big city
  - A town or a small city
  - A country village
  - A farm or home in the countryside
  - Don't know
5. On an average weekday, how much of your time watching television, listening to the radio, or reading the newspapers is spent watching, listening or reading news or programmes about politics and current affairs (issues to do with governance and public policy, and with the people connected with these affairs)?
  - No time at all
  - Less than ½ hour
  - ½ hour to 1 hour
  - More than 1 hour, up to 1 ½ hours
  - More than 1 ½ hours, up to 2 hours
  - More than 2 hours, up to 2 ½ hours
  - More than 2 ½ hours, up to 3 hours
  - More than 3 hours
  - Don't know
6. How often do you use the internet, the World Wide Web or e-mail – whether at home or at work – for your private or recreational use?
  - No access at home or work
  - Never use
  - Less than once a month
  - Once a month
  - Several times a month
  - Once a week
  - Several times a week
  - Every day
  - Don't know
7. Which party do you intend to vote for?
  - Fianna Fáil
  - Fine Gael
  - Labour Party
  - Progressive Democrats
  - Green Party
  - Sinn Féin
  - Socialist Party
  - Other
  - Refused
  - Don't know
8. Which party did you vote for in the last general election?