Journal of Elections, Public Opinion & Parties
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t713727959

Designing Online Election Surveys: Lessons from the 2004 Australian Election

Rachel Gibson [a]; Ian McAllister [b]
[a] University of Manchester, UK [b] Australian National University, Canberra, Australia

Online Publication Date: 01 November 2008

To cite this Article Gibson, Rachel and McAllister, Ian(2008)'Designing Online Election Surveys: Lessons from the 2004 Australian Election',Journal of Elections, Public Opinion & Parties,18:4,387 — 400
To link to this Article: DOI: 10.1080/17457280802305201
URL: http://dx.doi.org/10.1080/17457280802305201

Journal of Elections, Public Opinion and Parties
Vol. 18, No. 4, 387–400, November 2008

Designing Online Election Surveys: Lessons from the 2004 Australian Election

RACHEL GIBSON* & IAN MCALLISTER**
*University of Manchester, UK; **Australian National University, Canberra, Australia

ABSTRACT *Online polls have become more widely used in election campaigns, but their reliability in accurately predicting the outcome of an election remains variable. This article reports on the results of an ambitious online polling experiment conducted during the 2004 Australian federal election. In contrast to a more modest online poll conducted at the previous election in 2001, the 2004 poll turned out to be the least accurate of all of the polls conducted during the campaign. A series of hypotheses are tested to explain the inaccuracy of the poll. The main conclusion is that the sampling methodology used required the steady recruitment of new respondents, but that became much reduced as the campaign progressed due to lack of publicity from the online poll's main media partner. The 2004 Australian experience has important lessons for other online polls which use a similar methodology.*

Although online polls are now common in marketing and consumer research, their use during election campaigns remains a rarity. Polling organizations have been wary of the new technique as applied to elections, not least because of the adverse publicity that surrounds an inaccurate prediction. The failure of some polls to accurately predict the outcome of the 1970 British general election is a case in point, a failure which also recurred in 1992 (Curtice, 1996; Jowell *et al*., 1993; Smith, 1996). The 1970 failure had a particular impact on the development of telephone polling, since it was the telephone polls that were the most inaccurate of all (Abrams, 1970). It is the ghost of the telephone polls and their early failures that haunts the development of online polling today.

This article examines the lessons to be learnt from the 2004 Australian online poll. Like the pioneering phone surveys, this exercise was based on an earlier successful survey conducted in 2001, and it was believed that the methodology was robust enough for a much more ambitious design. That belief was misplaced, and the 2004 online poll was the most inaccurate of all of the polls conducted during the course of the election campaign. In this article we test a series of explanations for

Correspondence Address: Rachel Gibson, Institute for Social Change, Arthur Lewis Building, University of Manchester, Oxford Road, Manchester, M13 9PL, UK. Email: rachel.gibson@manchester. ac.uk; Ian McAllister, Political Science Program, Research School of Social Science, Australian National University, Acton, ACT 0200, Australia. Email: ian.mcallister@anu.edu.au

ISSN 1745-7289 Print/1745-7297 Online/08/040387-14 © 2008 Elections, Public Opinion & Parties
DOI: 10.1080/17457280802305201

why the 2004 online survey failed to live up to the high standard set by the previous online survey in 2001.

On 10 October 2004 Australians went to the polls to elect a new federal parliament. During the course of the election campaign a series of established and new opinion polls were conducted predicting the likely winner. Among the newcomers to the election polling world was the Nine/Bulletin/ANU[1] online poll, an ambitious survey jointly run by the Channel Nine television network, the *Bulletin* news magazine, and researchers at the Australian National University (ANU). The online poll was designed to track voter opinion on a daily basis during the whole course of the election campaign via an internet sample. The survey received extensive coverage in the media, particularly in the early stages of the campaign, by virtue of its ability to track the reactions of voters to the political events of the previous day.

Even before the final predictions were published, however, it was clear that the *Nine* poll was deviating markedly from the predictions of the other established polls. The online poll predicted a Labor victory, with a swing of around 4.9% in its two-party preferred vote compared to 2001.[2] Most of the established polling companies such as AC Nielsen and Roy Morgan Research were pointing to the re-election of the Liberal–National party coalition,[3] as was the newer Galaxy poll specially commissioned by News Limited. Newspoll, one of the longest-established polling companies, placed Labor and the Liberal-Nationals as level on 50% each.

The actual election result showed a Liberal–National coalition win over Labor, at 52.7% to 47.3%, respectively. The online poll thus over-estimated the Labor vote by almost seven percentage points, with a corresponding under-estimation in the Liberal–National vote. The main question posed by this paper is how we can explain the failure of the online poll to accurately predict the outcome of the election. This is a particularly interesting question given that a previous online poll run in 2001 by the ANU research team in conjunction with UK-based internet pollsters, YouGov, proved to be the most accurate in its election day estimates of the final two-party preferred vote. Such a disparity would suggest it was not the internet mode itself that introduced the high degree of error into the process. What else then could account for the ultimate failure of the 2004 online poll?

The 2001 Online Election Survey

Prior to the 2004 *Nine* online poll, the most significant venture in internet-based surveying in the electoral context was the 2001 ANU/YouGov election survey (see Gibson & McAllister, 2008). The survey was a collaborative endeavor between academic researchers based at the ANU and a then newly established company, YouGov, specializing in online surveys in the UK. The survey was web-based and employed a "passive" sampling approach, meaning that YouGov did not attempt to create a sampling frame from which to select respondents (sometimes called "active" sampling), but instead attracted interested online users through self-selection, provided that they were Australian residents.[4] Thus, invitations to participate in the

survey were placed on portals and frequently visited websites to attract as wide a selection of the electorate as possible.

The Nine MSN portal site – jointly run by Channel Nine, a television station, and the Microsoft Network – was seen as having the widest usage, with around 40% of all Australian web traffic at the time. Invitations to participate in the survey were promoted through the NineMSN homepage (http://www.ninemsn.com.au). This type of web poll, as Couper (2000) notes, was the most prevalent form of web survey in use at the time, having been used for the *National Geographic* "Survey2000" and the "WWW User Surveys" conducted by the Georgia Institute of Technology through its Graphic, Visualization and Usability Center (GVU).

The 2001 online survey was in the field for just over three weeks during the pre-election period, running from 12 October to 9 November 2001. It resulted in a final sample of 1,943 respondents. On the eve of the election YouGov, using in-house weighting methods, produced a prediction of 52% in the two-party preferred vote for the Liberal-National coalition, and 48% for Labor. By contrast, the well-respected Newspoll survey predicted a 53:47% split in favor of the Liberals. The actual result was a two-party preferred vote for the Liberal–National coalition of 50.9% and 49.1% for Labor. Table 1 shows that the actual result therefore revealed just a one percentage point slippage in the online poll, making it the most accurate of all the poll predictions. The comparable results for 2004 in Table 1 also confirm the significant slippage in the 2004 predictions.[5]

The Design of the 2004 Online Poll

Given the success of the 2001 online election study in generating accurate weighted estimates of the final vote, expectations were high that the 2004 exercise would also be a success. The development and management of the 2004 poll differed in several important ways from that of 2001. Instead of YouGov running the event from the UK, ANU researchers (Gibson and McAllister) teamed up with one of the major terrestrial news networks, Channel Nine and its popular web portal NineMSN. Additional promotional work (in the form of election news reports) was undertaken by *The Bulletin*. Both Channel Nine and *The Bulletin* are owned by Australian Consolidated Press, the media company run by the Packer family. Hosting and

Table 1. The 2001 and 2004 online poll predictions (two party preferred vote)

	Online Poll		Telephone Poll (Newspoll)		Actual Result	
	Coalition	ALP	Coalition	ALP	Coalition	ALP
2001	52	48	53	47	50.9	49.1
2004	46	54	50	50	52.7	47.3

Online poll figures are weighted estimates.
Sources: 2001, 2004 Online Polls; Newspoll; Australian Electoral Commission.

development of the survey site itself was undertaken by a local Canberra technology company, Wizard.[6] As in 2001, all questions and survey content was developed by the ANU research team.

The key difference that the new partnership made to the 2001 online poll was the broadening of its scope to reach a wider potential pool of respondents. Channel Nine has had, since 2001, the largest audience of five free-to-air TV networks in Australia.[7] The involvement of *The Bulletin* magazine and the NineMSN web portal for publicizing the results and links to the survey was seen as an opportunity to extend the survey's outreach even further. Both the 2001 and 2004 events were run as open web polls, relying on internet users finding the site rather than targeting users through an email database. The involvement of a major media player for site promotion in 2004 was seen as representing a significant step forward in drawing in the larger and more representative sample of voters that internet-based surveys typically struggle to find.

As in 2001, potential respondents had to complete an initial registration form to enroll in the poll. The required information included basic demographic details, along with their postal and email address. Given the importance of past vote (in 2001) in the weighting process this was also included as a compulsory item in this section along with where the respondent found out about the poll. Once this first step had been completed, respondents were sent an email confirmation and a username and password to log onto the secure poll site. In both the 2001 and 2004 surveys, this protocol proved to be important in ensuring the reliability of the responses, and to minimize individuals enrolling multiple times in order to complete the survey.

A significant difference in the rationale and operation of the poll in 2004 was the switch to a daily tracking poll that respondents could return to, rather than a static survey that was completed by individuals only once during the course of the election campaign. This led to a much shorter questionnaire than was used in 2001 being fielded, the 2001 version itself being a truncated version of the post-election mail-out/mail-back Australian Election Study survey (http://aes.anu.edu.au/). Structurally, the 2004 questionnaire was divided into two main sections. First, along with basic socio-demographic characteristics captured in the registration process, a fixed set of questions about prior vote and current vote intention, preferred prime minister and issue importance was asked every day.

The second section of the questionnaire was composed of between six and ten campaign-related questions, these changing on a daily basis, depending on the preceding day's events. The objective was to provide a means for continuous monitoring of voting intention during the course of the campaign and to identify how far, if at all, any arising issues, policy announcements, and statements by politicians influenced voters' decisions. The involvement of Channel Nine in particular was seen as crucial to this innovation, since it would require substantial numbers of individuals completing the survey on a daily basis to yield sample sizes that would permit meaningful estimates to be obtained. Given Nine's large national audience share, it was assumed that through regular and strategic promotion on news bulletins

and election-related programming it would be possible to drive a large number of new and return voters to the poll website on a daily basis.

Results

The online poll went "live" on 10 September, three days after the close of the electoral rolls, and remained active until polling day, on Saturday 9 October. Figure 1 shows the daily results of the poll in terms of the two-party preferred vote over the course of the 28 days that the poll operated. The estimates reported in Figure 1 are based on a three-day moving average, hence no results are reported for the first two days of the poll. Overall, a total of 5,373 individuals completed the survey at least once during the course of the campaign. In addition to reporting the two-party preferred vote, a daily report was issued by the ANU researchers recording the first preference votes for the House of Representatives, vote intention in the Senate (upper house), preferred party leader and how important various key issues (education, healthcare, crime, defense and security) were to voters in making their vote choice. Given the daily sample sizes, a multivariate weighting scheme was not deemed feasible and so a simple system of weighting responses according to recalled vote in the 2001 election was adopted.[8]

Given that the aim of the poll was to capture changing voter preferences during the course of the campaign, it is clear from the data presented here that up until the end of the second week of the campaign the exercise achieved this goal. As the trend

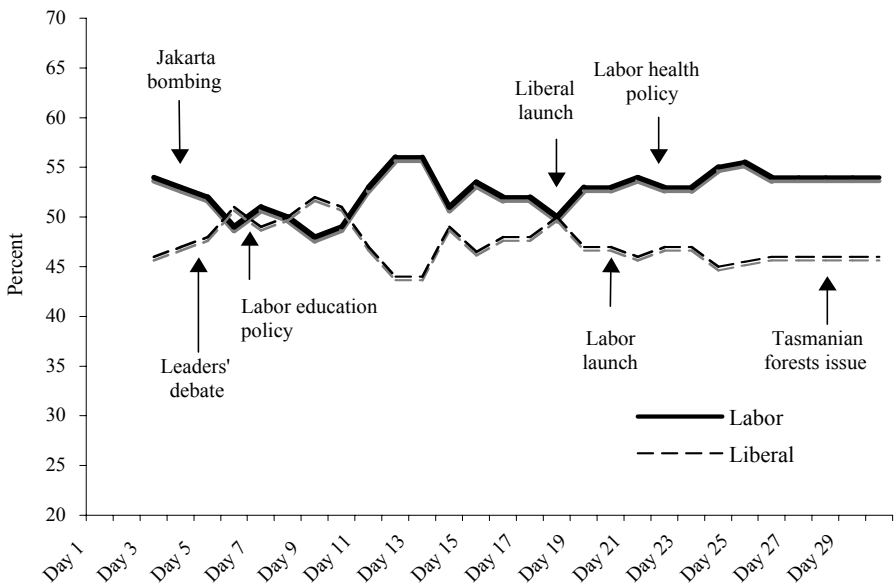

Figure 1. Daily voting intention (two party preferred).
Source: Nine/Bulletin/ANU online poll.

lines show, the poll did reveal volatility in vote intention, particularly over the first two and a half weeks of the campaign. Thus, while Labor began the election campaign in a position of strength on a 54% majority, four days later this had reduced to 49%, with the Liberals rising to 51%. While the trend appeared to level out at the start of the second week, with Labor moving slightly ahead of the Liberals, the parties were again even by 27 September, toward the end of the third week of the campaign. This was the last time, however, that the Liberals were in the lead according to the online poll results. From day 19 onwards, a steady pattern of Labor dominance recurred, with the gap between the two parties never being less than six percentage points (Figure 1). In the analysis of the underlying poll dynamics below, we return to the reasons behind this loss of volatility later.

As the overlaid information about the campaign events indicates when the poll was managing to capture change in the daily vote intention, it does appear that the shifts taking place in opinion corresponded to certain real world events. In particular, we see a narrowing of the gap between Labor and the Liberals after 12 September which was the date of the leaders' debate and also several days after the bombing of the Australian Embassy in Jakarta on 9 September. The unveiling of Labor's education policy, on 14 September, however, directly preceded the Liberals move into the lead on 15 September. Labor's education policy proved deeply unpopular, with a transfer of resources from private schools – which were individually listed in the policy – to more needy schools. Whatever the economic merits of the policy, to many voters this smacked of the redistributive policies of "old" Labor and was deeply unpopular among them (McAllister, 2005; Wilson & Breusch, 2004).

The formal launches of each party's policy platform – which traditionally takes place close to polling day – also helped to boost support for each party. Liberal support increased on 27 September, the day after the formal launch of their party platform. Labor support also shows an increase on 30 September, the day following the launch of their platform with its emphasis on extra spending on social infrastructure. Overall, however, the latter half of the campaign is notable in the online poll for showing relatively little movement in support, with a consistent Labor lead over the Liberals. Even the Liberals' agreement with the Tasmanian forest industry, which was widely supported by the timber workers, failed to dent Labor's lead in the online poll. As we now know, this did not reflect the true position of the parties within the electorate.

How far did the results of the Nine poll deviate from what the other polling companies were reporting? In other words, were all of the polls consistent in the levels of party support they were showing, or was the Nine poll the odd one out? Figure 2 tracks the poll results in terms of the two-party preferred vote, for the Nine poll and the three major polling companies. The estimates are the Labor vote minus the Liberal-National vote. The results show the consistent Labor lead reported by the online poll from the middle of the campaign. Royal Morgan Research (which had over-predicted Labor's vote in 2001 as well) also showed a more modest Labor lead. By contrast, the Nielsen poll showed a consistent coalition lead and was the only poll to show a Liberal–National lead throughout the campaign.

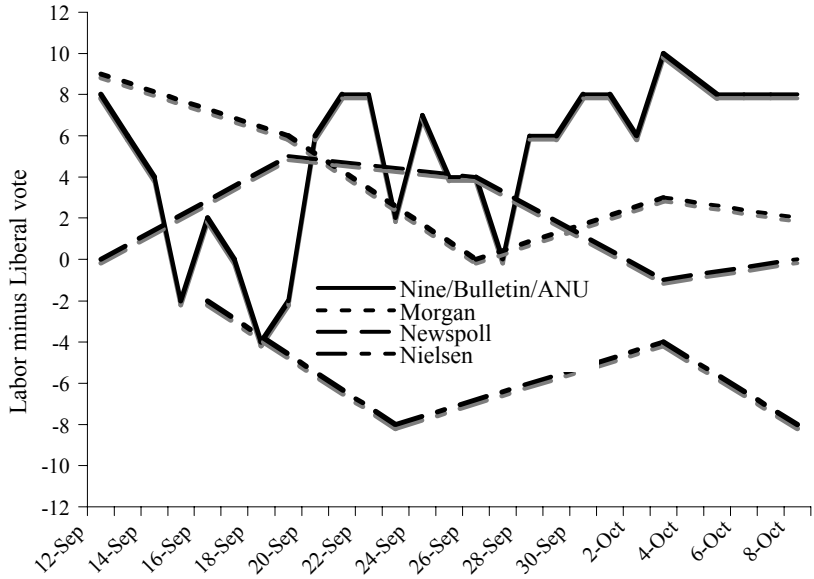

Figure 2. The performance of the election campaign polls
Figures are the Labor minus the Liberal-National two party preferred vote.
Source: Nine/Bulletin/ANU online poll.

Lessons Learned

As an interesting point of symmetry, the online poll predictions for the Labor and Liberal shares of the two-party preferred vote proved to be the same on the final day of polling as it had been for the first day of results. However, while it may have been the case that a 54:46 percentage point split in favor of Labor accurately represented the voters' mood a month before the election, as we now know from the final results that did not represent their feelings on election day. As noted earlier, this failure was particularly surprising given the success of the 2001 online poll in predicting the outcome and also the significant increase that had taken place in the size of the internet-using population since that time. While in 2001 less than 40% of the electorate were reported to be using the internet, by 2004 this had risen to a majority at just over two-thirds.[9] In this section of the paper, we explore the reasons why the 2004 online poll failed to predict the eventual outcome by such a wide margin, and what can be learned by online surveys from the Australian experience.

In order to explain the bias in the 2004 poll, we begin by comparing it with the successful 2001 poll, a process that leads us to identify a number of methodological and operational differences between the two surveys that may have influenced the accuracy of our predictions. Specifically, we consider two methodological decisions that differed across the two years: differential use of weighting; and the process used for calculating vote estimates. Then we examine the wider operational factors

external to the poll, particularly the promotional efforts to drive traffic to the poll website. We test whether this "churn" factor affected the underlying composition of the sample.

The question of weighting was one that could help to explain differences across the two polls. In 2001, YouGov had managed all the technical and promotional issues in developing, hosting and conducting the study and were responsible for the election-eve prediction. The weights that were used were constructed and applied "in-house" and not divulged publicly, although they did indicate that past vote constituted a significant component of the procedure. In 2004 the responsibility for the technical, promotional and predictive aspects of the survey were divided between three partners. In the lead-up to the 2004 study, the ANU researchers experimented with a series of demographic and political weights (education, age, gender and past vote) and concluded that weighting by past vote was the best means of approximating to the final outcome. Thus, in 2004 a simple weight – vote in 2001 federal election – was applied to the datasets, this being calculated and applied to the datasets on a daily basis.

While differential weighting procedures might explain some disparity in predictive accuracy across the two surveys, it is not clear how it might explain the consistent bias that emerged toward Labor in the third week of the 2004 poll and remained up to polling day. The weighting procedure remained constant throughout the study and, as the estimates in Figure 1 reveal, had at some point put the Liberals in the lead. Also, past vote did form a major element of YouGov's weighting practice in 2001 as noted above. A second major difference between the surveys to consider, therefore, was the actual manner in which final vote intention between the two surveys was calculated. For the 2001 online poll, YouGov's final prediction was based on the cumulative file of 1,696 respondents who had completed the survey across the three and a half weeks of the campaign that it had been active. The 2004 prediction, however, was based on the final three-day moving average (7–9 October) and a total of 2,234 respondents. While this in itself would not be expected to create a bias toward Labor, given that individuals could vote more than once, this did create the possibility of highly inflated estimates if one party's voters were repeat respondents and casting multiple votes.

To investigate this question further we reconstructed the 2004 database to correspond to the cumulative file for 2001 such that respondents' entries were only counted once. In the case of multiple or return voters we counted the most recent entry made across the 30 day period. A first point to note from this process was the reduction in the size of the sample from an overall total of over 19,000 voter responses when multiple responses were included, to a total of 5,373 when the dataset is limited to unique respondents. Such a reduction clearly suggests that the majority of those responding to the survey on any given day were, as suspected, repeat respondents. We then compared the unweighted first preference votes to the election outcomes in each case. The findings are reported in Table 2.[10]

The results in Table 2 indicate a higher degree of accuracy in the estimation of vote intention than is produced by the three-day moving average. In particular, the

Table 2. Online poll estimates, 2001 and 2004 (first preference vote)

	Election result 2001	AES 2001 online	Election result 2004	AES 2004 online
Liberal	37.1	44.0	40.5	41.4
National (Total Coalition)	5.6 (42.7)	2.2 (46.2)	5.9 (46.4)	2.6 (44.0)
Labor	37.8	36.0	37.6	41.6
Australian Democrats	5.4	9.3	1.2	1.5
One Nation	4.3	2.8	1.2	0.5
Greens	4.4	3.1	7.2	10.0
Others	5.1	2.6	6.4	2.4
Total (N)	100	100 (1,696)	100	100 (5,373)

Online poll figures are unweighted estimates.
Sources: 2001, 2004 Online Polls; Australian Electoral Commission.

unweighted estimate of the coalition primary vote is actually closer to the final vote in 2004 than in 2001. In addition, the estimates for the minor parties' votes appear to be as close if not closer in certain cases (i.e. the Democrats). The Labor vote is clearly over-estimated in the 2004 cumulative file, however, both in terms of first preference and in the two-party preferred vote as well (as we saw in Table 1).

Overall, these results do not suggest that the use of a three-day moving average was in itself responsible for introducing a partisan bias into the daily estimates. However, this method of calculating the vote prediction clearly did introduce the potential for inclusion of a large number of repeat respondents or effectively a "panel" into the dataset that disproportionately favored one party. We turn now to examine the question arising from this section of the analysis – namely how was it that this potential for a large body of one party's supporters to dominate the poll ended up happening?

In order to explain this development we turn to a third set of factors external to the poll that differentiated it from the 2001 experiment. In particular we draw attention to the role of the media sponsors and the failure of the wider promotional environment surrounding the poll to secure a high daily turnover of respondents. As the preceding analysis and results of Figure 1 revealed, in the early days of the poll there was considerable movement in the vote predictions. This however leveled out toward the middle of the campaign and essentially "flatlined" until polling day. The detailed analysis of the underlying structure of the dataset presented in Table 2 pointed to possible problems in the extent to which the poll was able to attract new participants. To gain a clearer picture of the extent of this problem during the course of the election campaign, we conducted an analysis of the proportion of new registrations recorded over the 30 days that the poll was operational. These are reported in Figure 3.

While one would expect there to be some decline in the numbers and proportions of new registrants across the time period, the precipitous fall by the start of the

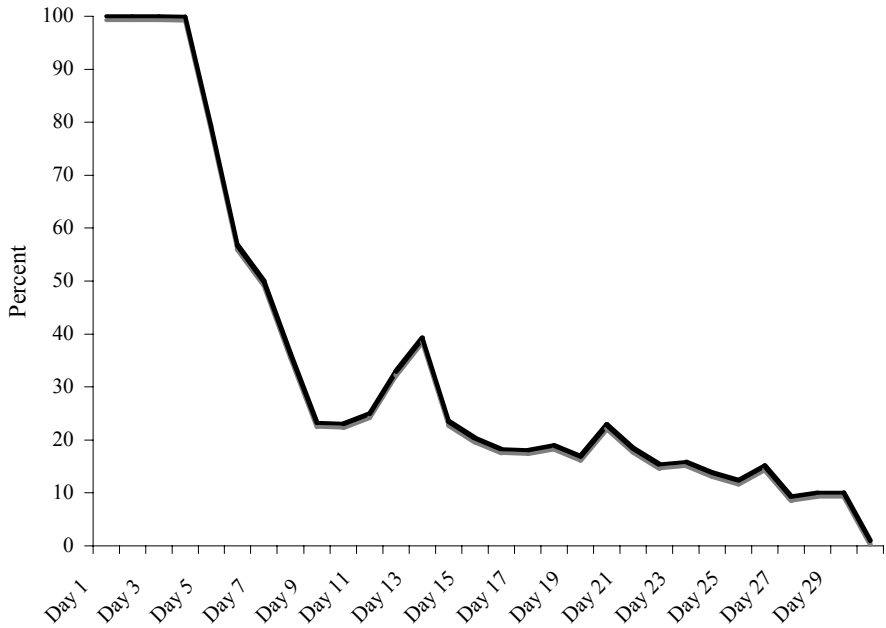

Figure 3. New registrants in the online sample.
Source: Nine/Bulletin/ANU online poll.

second week – from 100% new registrants to just over one in five – and the steady decline thereafter, with one short jump around the end of the second week, appears to confirm our suspicion that the poll was failing to attract a significant proportion of new respondents as time went on. The level of turnover or "churn" in the sample was essentially nil by week three, with the vast majority of those completing the survey being a core of around 6–800 respondents who had previously registered.

It is of course impossible to know what might have occurred had the poll been attracting a majority or even a significant minority of new respondents each day. Given the non-random probability sampling methods used and the continuing digital divide in internet access, the poll may well have still produced biased predictions. However, the poll's success in capturing voter volatility and closer tracking of the major offline polls during the first half of the campaign, when at least around 40% of respondents were new, suggests that had this rate of entry continued, the online polls' performance would have been considerably better than ultimately was the case. The "flatlining" in vote intention that emerged by the second half of the campaign, therefore, appears to have been something of an inevitability as the poll respondents became a de facto panel of returning Labor supporters.[11]

It seems therefore that the key issues to resolve in explaining the marked failure of the 2004 online poll is the significant decline in the turnover of the daily sample from the mid-point of the campaign and the high proportion of repeat respondents. One of the more obvious explanations for the latter can be found in the optional

email reminder service that was established late into the second week of the poll. Implemented primarily to increase numbers to a statistically useful level, it did serve to produce a reasonably large and steady number of responses. However, its delayed introduction meant that it missed those early–mid poll registrants who were less biased toward Labor. Thus, while this type of reminder facility can serve a useful purpose in boosting samples for online tracking polls, the timing of its implementation is clearly an important factor.

Beyond the unanticipated bias introduced via the email reminder service, the sharp decline and overall pattern of new registrants across the poll period suggests that other factors external to the survey operations may have affected its ability to attract fresh participants. In particular, the high rate of new respondents during the first week, subsequent fall and then rise again toward the end of the second week, suggests that voters' awareness of the poll shifted during the course of the campaign, to settle ultimately at a very low level. Examining the publicity or promotional aspects of the poll lends support to such an interpretation. There was a clear lack of consistent efforts by the partner media outlets (particularly the Nine network) to promote the poll. Indeed, the first TV plug came on the second day of the campaign via the 6.30 news bulletin. A prime opportunity to promote the poll later that evening during the first party leaders' debate was then missed. Subsequent coverage was minimal and constituted largely the listing of web address for the poll rather than any direct promotion and discussion of the results and analysis produced by the ANU partners.

Other events did not help the recruitment of new respondents. Toward the end of the first week the location of the main link given out for the poll was changed from the *Bulletin's* website to the Nine news page, so people needed to search again to find the survey in amongst an already crowded page of Nine's own mini-news polls. A second direct promotion of the poll by Nine news did occur in the second week, which can be linked to the upward spike in new registrants on day 13 (22 September) of the campaign, as shown in Figure 1. However, in general promotion of the survey by the television news network was minimal after the initial flurry of interest.

In contrast to the online poll's television partner, publicity via *The Bulletin* magazine was strong, with two specially commissioned reports published in the lead-up to the election based on the online poll findings. The audience for the news magazine, however, is clearly not as wide as that of its TV partner, and could not succeed in expanding the reach of the poll beyond its more politically interested and engaged readership. Further evidence indicating the reduction of the publicity provided to the poll can be seen from responses to a fixed question about where respondents found out about it. On day 5 of the poll three-quarters of respondents reported hearing about it through Nine, but by the close of the poll this had fallen to 44%.

Conclusion

There is little doubt that online polls represent the future of opinion polling. With rapidly increased internet penetration in the established democracies, declining

response rates for traditional surveys, and the ability of online polls to avoid method effects (Gibson & McAllister, 2008; Musch *et al.*, 2001), their future seems assured. But the unreliability of online polls to accurately predict election outcomes remains an issue of concern. The situation is analogous to the widespread use of telephone polls during election campaigns during the 1960s and early 1970s. It was not until the methodology was fully tested and potential biases understood and allowed for that accurate predictions became commonplace.

In this article we have evaluated the explanations for the relative failure of the 2004 Australian online poll – at least compared to the other polls – to predict the election result. After testing a series of hypotheses, our conclusion is that the lack of turnover in the sample during the second half of the election campaign is the main explanation. The lack of publicity for the poll provided by the main media partner, a major television network, resulted in very few new respondents. As a result, the sample became dominated by returning respondents, who were disproportionately Labor in their outlook. The main lesson, then, is to ensure widespread publicity for the survey in order to secure as a high a "churn" rate in the sample as possible.

Our findings also have some good news for online surveys. The weighting procedure that was adopted did yield a series of reasonable predictions that tracked the established major polls, at least for the early part of the campaign when it secured high rates of participation among new respondents. Other online surveys have used a different approach, notably sampling from a large pool of respondents whose demographic characteristics are known – what is sometimes called "active sampling". While we are unable to provide a definitive test, our results suggest that, with sufficient caveats and proper design, a large "passive sampling" exercise can be at least as effective during an election campaign.[12] In ten years' time we may well look back on the development of online polls and wonder why all polls were not conducted that way.

Acknowledgements

The 2004 Australian Election Study was collected by Rachel Gibson, Ian McAllister, Clive Bean and David Gow and funded by the Australian Research Council.

Notes

1. For brevity we refer to the poll in the paper as the "Nine poll".
2. Under Australia's preferential voting system, the candidates with the lowest number of votes are progressively eliminated and their preferences reallocated until one candidate receives a majority of the vote and is deemed the winner. The two-party preferred vote is the complete allocation of all preferences until two candidates remain.
3. The Liberal and National parties have been in almost permanent coalition since the 1920s, except for two short periods in the 1920s and the late 1970s. For brevity, we refer to the Liberal party as representing the coalition.
4. YouGov has used different respondent selection techniques in different surveys in various countries. The "active sampling" methodology used in British surveys is described in the article by Twyman in this symposium.

5. Newspoll is used as the comparator as it is the most widely cited of the commercial election polls. For a discussion of the accuracy of the polls in the 2001 election see Wolfers and Leigh (2002) and on the 2004 election, Jackman (2005).
6. See http://www.wizardis.com.au/.
7. See http://www.afc.gov.au/gtp/wftvratingstrends.html, accessed 3 October 2007.
8. Given that the focus of the 2004 poll was on prediction of the final result and voters' responses to the major campaign issues, use of past vote was deemed the most appropriate approach.
9. The 2001 estimates are reported in Rachel Lloyd and Anthea Bill. 2004 "Australia Online: How Australians are using computers and the Internet 2001", Canberra, Australia: Australian Bureau of Statistics, Released January 2004; 2004 estimates from Nielsen/Net Ratings January.
10. The figures in Table 2 are first preference votes, which show voters' first preferences for all of the parties, prior to the distribution of subsequent preferences. These estimates therefore differ from the estimates in Table 1 which are based on the two-party preferred vote, where voters' preferences have been redistributed until one candidate achieves a majority under the preferential voting system. See Farrell and McAllister (2005) for a discussion of Australia's electoral system.
11. We do acknowledge the possibility that the poll may have consistently over-recruited ALP supporters, making repeat respondents simply more likely to support Labor (i.e. there was no panel effect linked to ALP supporters specifically). Unfortunately, the dataset of aggregated unique respondents does not contain a variable that identified multiple respondents versus those that responded only once, and so it is not possible to test this directly at the individual level. Overall, however, we would argue that the early lead by the Liberals and slump in the final two weeks of the campaign (Figure 1); combined with the significant and sustained drop in new respondents to around one in five (max), (Figure 3) during this time; as well as the collapse of the online poll's ability to track any of the other major opinion polls in the final 10 days of the campaign (Figure 2); and the large prediction error on election day (Table 1); presents strong evidence of *increasing* ALP bias in the sample that can plausibly be linked to the concurrent underlying lack of turnover in the sample.
12. We are unable to make a definitive test of this conclusion in the absence of a comparable sample using a different sampling method – which is not available. Our results do, however, strongly suggest that "passive" sampling can be as effective as "active" sampling, with appropriate caveats.

References

Abrams, Mark (1970) The opinion polls and the 1970 British general election, *Public Opinion Quarterly*, 34, pp. 317–324.

Couper, Mick P. (2000) Web surveys: a review of issues and approaches, *Public Opinion Quarterly*, 64, pp. 464–494.

Curtice, John (1996) *Does it Matter if the Polls get it Wrong?* (Oxford: CREST Working Paper No 51).

Farrell, David & McAllister, Ian (2005) *The Australian Electoral System: Origins, Variations and Consequences* (Sydney: University of NSW Press).

Gibson, Rachel & McAllister, Ian (2008) Online election surveys: keeping the voters honest?, *Journal of Political Marketing*, Forthcoming.

Jackman, Simon (2005) Pooling the polls over an election campaign, *Australian Journal of Political Science*, 40, pp. 499–517.

Jowell, Roger, Hedges, Barry, Lynn, Peter, Farrant, Graham & Heath, Anthony (1993) The 1992 British election: the failure of the polls, *Public Opinion Quarterly*, 57, pp. 238–263.

McAllister, Ian (2005) The Australian Federal Election, October 2004.' *Electoral Studies* 24, pp. 545–551.

Musch, Jochen, Bröder, Arndt & Klauer, Karl Christoph (2001) Improving survey research on the world-wide web using the randomized response technique, in: Ulf-Dietrich Reips & Michael Bosnjak (eds) *Dimensions of Internet Science* (Berlin: Pabst Science Publishers), pp. 179–192.

Smith, T. M. F. (1996) Public opinion polls: the UK general election, 1992, *Journal of the Royal Statistical Society*, Series A, 159, pp. 535–545.

Wilson, Shaun & Breusch, Trevor (2004) After the tax revolt: why Medicare matters more to middle Australia, *Australian Journal of Social Issues,* 39, pp. 99–116.

Wolfers, Justin & Leigh, Andrew (2002) Three tools for forecasting federal elections: lessons from 2001, *Australian Journal of Political Science,* 37, pp. 223–240.